

**THE STARMAN SAGA**  
**Volume 1**

**THE DAWN OF  
THE STARMEN**

**Revised and Reissued**

*The cover illustrates a scene on page 102.*

**THE STARMAN SAGA**  
**Volume One**

**THE DAWN**  
**OF THE STARMEN**

**Revised and Reissued**



*by Michael D. Cooper*

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ABCDE "*A Baumann-Cooper-Dodd Enterprise*"

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### **About the Author**

Michael D. Cooper is the pseudonym for Jon Cooper, Mike Dodd, and David Baumann, each of whom played a vital role in creating the Starman series. Jon Cooper plotted the stories, Mike Dodd suggested creative plot elements and supervised the stories' scientific accuracy and plausibility, and David Baumann wrote the text, fine tuning details and developing the characters. Cooper is a computer programmer, Dodd is a social worker and zeppelin builder, and Baumann is an Episcopal priest and martial arts master.

# THE STARMAN SAGA

## Volume 1: The Dawn of the Starmen

**Mutiny On Mars** (May 19-July 22, 2151)

**The Runaway Asteroid** (July 24-September 10, 2151)

“The City of Dust” (July 30, 2049-August 2051)

“The Flight of the *Olympia*” (2110)

“The Caves of Mercury” (2112-2113)

“The Orphans of Titan” (August 2, 2130)

“A Matter of Time” (October 12, 2150)

**Journey to the Farthest Planet**

(January 1-August 22, 2152)

## Volume 2: The Search for the Benefactors

**Descent Into Europa** (August 7-December 25, 2152)

**The Treasures of Darkness** (March 18-May 6, 2153)

“The Eight Treasures” (10085 B.C.)

“The Sand Tomb” (Summer 2060)

“The Infestation at Sulphur Creek” (June 1, 2153)

“The Plight of the Bumblebee” (June 13, 2153)

“The Ultimate Code” (September 26, 2153)

“Return to Europa” (October 15-December 31, 2153)

**Doomsday Horizon** (July 30-August 19, 2156)

## Volume 3: The War of the Light

**The Heart of Danger** (September 1-November 9, 2157)

**The Last Command** (March 11-May 4, 2160; June 2161)

“A New World” (March 12-13, 2161)

“Stars of the Deep” (October 7-15, 2165)

**Paradox Lost** (summer 2168, but relating events  
that took place March 21-April 23, 2155)

**Master of Shadows** (Summer 2169-June 26, 2170; 2171)

## Volume 4: The Starman Companion

## Cover artwork

by Jonathan Cooper

## Internal illustrations

MUTINY ON MARS

Bill Baumann

THE RUNAWAY ASTEROID

Nick Baumann

JOURNEY TO THE FARTHEST PLANET

Mike Dodd

## Introduction to this Edition of the Starman Saga

The first nine novels and most of the short stories in the Starman saga were written and published from 2000 to 2005. The tenth novel and most of the rest of the short stories were published in 2010. The last short story, “Stars of the Deep”, was written for this revised and reissued edition and appears here for the first time.

In 2015, plotter Jon Cooper and writer David Baumann began to read through the books they had written from five to fifteen years before. As they read, they noted several plot glitches (a few of them major!) and numerous typographical and other textual errors. When they finished reading, they set out to make corrections to their master files. Having the opportunity, they also redesigned and reordered some of the stories so as to make more sense in the overall flow of the saga.

Some of the major change included completely revising the nature of the Xenobots; this change required that every reference to Xenobots in the entire saga had to be checked and, when necessary, revised. Furthermore, new material was created for a dozen or more places (some of them significant), altering plot glitches such as completely changing the fate of the Xenobots’ home planet, and adding a new chapter regarding the future of Kathy Foster. The latter change was urgently suggested by the way the tenth novel, *Master of Shadows*, played out. The fifth book, *The Lost Race of Mars* whose title had been changed to *A Kingdom in Twilight*, received yet another new title: *The Treasures of Darkness*. The novelette *Paradox Lost* was somewhat rewritten and then upgraded to take its place as a full entry in the list of novels, and placed in a new position. This brought the number of books to ten, along with a total of thirteen short stories. A list of the major changes is provided in the last volume in this reissue, *The Starman Companion*.

After over a year's work, the revisions were completed. Nearly 2,000 changes were made. The Starman Team believes that this latest version of the Starman Saga is as flawless as they can make it. Any reader who notices an error that we missed is urged to contact the Starman Team and let us know!

As a sign of the “makeover” of the Starman saga, entirely new artwork was selected for the covers of all four volumes. This artwork had been created by Jon Cooper several years earlier but had not been made public until now. The entire Starman saga in its four volumes is issued in both picture cover and, for the first time, in hardbacks with dust jackets.

We hope that old fans will appreciate this new edition of the Starman saga, and that any new readers will find the saga entertaining, inspiring, and uplifting.

The Starman Team  
September 24, 2016



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## BOOK 1: MUTINY ON MARS

*Such were the deeds of the three warriors. (2 Samuel 23:12b)*

### Chapter 1: Starlight Academy

DAVID LELAND FOSTER looked thoughtfully through the high open safety grill that surrounded the spacious observation deck atop the Needle, the highest point of Starlight Academy. The prestigious Academy was the training facility of the renowned Starlight Enterprise. A light breeze ruffled the seventeen-year-old's thick, dark red hair as he brooded atop the pinnacle of tempered steel and glass that rose from the reception complex to a height of fifteen stories. At five and a half feet tall, he was shorter than average but made up for his slight stature with a powerful build and fast reflexes.

Since 2100 Starlight Enterprise had been by far Earth's largest lunar mining corporation with manufacturing plants on the Moon and a booming asteroid mining operation as well. SE designed and manufactured products such as mining equipment, fission and fusion reactors, spacecraft, robots, and basic building materials needed in the Jovian system and on Titan and Mercury. The SE brand was known throughout the Solar System as *the* best brand name for heavy equipment.

Now it was the third week of May 2151—a crisp late autumn day in the south Pacific with only a few light feathery clouds in a clear blue sky. Another academic year at the Academy had come to an end, and on the following day the graduation ceremonies would take place. A class of 2,720 would receive diplomas; a large number of graduates would be honored for various achievements. Top honor was the formal enrollment of new Starmen. Only the very best and finest graduates of Starlight Academy became Starmen. It was a high honor that came by

invitation only.

The Starmen were Starlight Enterprise's top explorers. SE outfitted them with ships, equipment, and support personnel, and dispatched them to discover and explore the corners of the Solar System, no matter how remote or hostile. Their assignments often carried a high level of risk, but were also where the greatest adventures could be had. Clothed in the coveted red uniform both in space and in port, the Starmen were respected, honored, and revered by all—and they were rare. Since the founding of Starlight Academy in 2103, only 209 people had ever become Starmen. By 2150, the Solar System held only 143 of them.

Several other graduates shared the top of the observation deck with David Foster, but all were silent, gazing meditatively out to sea. In all directions there was nothing to see but ocean, barely undulating in the near-perfect weather. Starlight Academy's automatic stabilizers needed to make only minor adjustments on this day.

The Academy was an immense, self-contained floating city, located—for the present—250 miles west of Espiritu Santo Island in Vanuatu, the closest significant landmass. The facility was home to nearly 15,000 personnel—students, instructors, administrators, and maintenance workers with a variety of skills.

"Don't worry, David," said a friendly voice to the redheaded young man. He turned and smiled at another graduate who had joined her classmate at the grillwork. "You're *bound* to be approved! Everyone knows it!"

David smiled wider, even disarmingly. "Thanks, Urooj," he said. "But you never know until they call you in. My record is good," his face clouded over slightly, "but there's still..."

Urooj Qazilbash was an attractive young Pakistani woman with long, straight, black hair. She smiled back at David, her sparkling eyes filled with admiration and affection. She laid a hand on her friend's arm and shook her head. "You're record's not just good—it's amazing! You set three new standards in your residence here, and you have a quadruple A rating. How can they

fail to commend you? You and Mark and Joe are the only three in the class with the qualifications for Starman!”

Starlight Academy rated its graduates in four categories: Leadership, Health, Character, and Academics. Ranking in each category was indicated by a system of letters and subletters. A score could appear as AbdCedBbeAec. The absence of subletters indicated accomplishment in every subfield in the category; master’s rating was A. The Starmen were drawn only from those few graduates who received a AAAA rating, always less than 1% of the graduating class.

“Thanks, Urooj,” David repeated warmly. But inside he wasn’t confident. Even those with a rating of AAAA were not guaranteed the invitation to be made Starmen. Out of a class of 2,384 graduates just a year ago, eight were rated four A, but only Kathryn Mullaney was made a Starman. In this class of 2151 there were twelve with a four A rating.

~

At that moment, in the inner offices of Commander Benton Epstein, deep in the heart of Starlight Academy, a tense discussion was going on about that very same David Foster. The council where it was decided who would be offered the rank of Starman had reached an impasse. Chaired by Richard Starlight, Chief Executive of Starlight Enterprise, the other members of the council were John Rwakatare, a stolid Tanzanian who was Richard’s top assistant; Commander Epstein; the six heads of departments at the Academy; and four experienced Starmen. On each candidate a vote was taken after discussion had been completed, but it was merely a recommendation; Richard Starlight made the final decision. Of the twelve with the highest rating, only three candidates were under serious consideration.

Approval came quickly for the Montanan Mark Samuel Seaton and Canadian Joseph Lindholm Taylor. Mark was a tremendously gifted engineer and Joe was one of the most skilled pilots in the history of the Academy. Doubts, however, were

being raised about the suitability of conferring Starman's rank on David Foster.

"His academic record is near flawless," insisted Edna Stann, head of the planetary sciences department.

"No one doubts that," rejoined Starman Crag Collins. "We don't question his academic record, or his health or his character. That's not the reason for my objection! We cannot entrust Starman's red to anyone with David Foster's inordinate fear of radiation! A Starman has to be a leader and completely trustworthy in all situations, and his ability to lead is compromised!"

"A Starman is going to encounter dangerous conditions frequently," added Starman Laurel Yoshimoto. "A Starman must be able to react quickly and decisively."

Dr. Stann's jaw tightened briefly. "It's not only his academic record that qualifies him. He's been thoroughly tested at the Academy, including occasions of extreme stress! In every instance David reacted quickly and properly, seeming to analyze the challenge and meet it effectively with a speed that was phenomenal! He's well respected by his peers and looked to for leadership. His abilities in this area come to him naturally, as if he were born to them! Why, the graduates themselves fully expect that he'll be given the red!"

Starman Collins curled his lip slightly.

Richard Starlight raised a hand and the exchange came to a stop. Richard was the driving force behind Starlight Enterprise, the company his father, Thomas, had started many years earlier. He was an athletic 57 years old, with a full head of thick black hair that showed very little sign of gray.

"We cannot demand perfection in our Starmen, obviously. David has been well trained by his father. The exposure to deadly radiation that grounded Allen over twenty years ago was a tragedy, and it is evident that his frustration has been passed on to his son to some degree. This has created in him a determination to succeed that has made David the remarkable specimen of humanity that he is. He has been proven in every

test that has been given to him. But he is a little too intense. The Starmen on this council are unconvinced about his suitability to serve as a Starman because, no matter what the training record, they know that aptitude and readiness and capability are proven in the field. Artificially devised tests, no matter how well designed, can only go so far in discerning the ability of anyone to handle an actual situation.” With his eyes, Richard silently asked the four Starmen if he had summed up their objections adequately. All four nodded.

“Then let me ask this: if David Foster were to be made a Starman and were assigned to be your partner on a hazardous assignment, would you feel confident in him?”

“No!” said Starman Collins rather sharply. Rather reluctantly, the other two Starmen shook their heads, but Starman Yoshimoto hesitated.

“Not completely,” she said at last, “but I’d be willing to take the risk.”

Richard exhaled deeply and stared across the table at nothing in particular.

“The vote, I take it, is eight in favor and four against?”

“I will abstain,” announced John Rwakatare.

“So will I,” said Starman Yoshimoto.

“Seven in favor, then, and three opposed? Very well,” said Richard. “Considering his history, potential, and to some extent his peer support, I think it would do more harm than good to deny or even delay the awarding of the Starman’s rank to David. However, the reservations expressed this afternoon will be taken seriously. I’ll start David Foster with projects where we can watch his progress. His first assignment will be the realtime transmission experiment that is taking place on Mars in July. It should be uneventful.”

~

Later that same day, three highly excited young men were cavorting on one of the open-air playing fields. They had just completed their individual interviews with Richard Starlight; he

had invited each of them to become Starmen and they had, of course, accepted. The creation of the Starmen would take place at the graduation ceremonies the following day. With their formal acceptance, before the celebration ended they would be enrolled as Starmen 210, 211, and 212, and there would be great rejoicing.

Exulting in their youth with seemingly limitless vigor, they were practicing martial arts in the rich light of the setting sun.

A few inches over six feet tall, Mark Seaton was built solidly. He had black hair and brown eyes. His sense of humor was deep and wry. He was easy-going, rarely giving offense and never taking any, yet his fighting skills were formidable. Moreover his academic ability was phenomenal in all fields from languages to mechanical engineering. He was self-effacing, multi-layered, and solitary, but a loyal friend.

Joe Taylor was a lanky six-footer with brown hair and green eyes. Though shorter than Mark, he could appear taller because he was so thin. He looked at first to be almost a beanpole, with his elbows and knees appearing to go all places at once. The impression of awkwardness could disappear quickly, however, for he was quick and lithe whenever the need arose. His time in the 100-yard dash had broken an Academy record that had stood for over thirty-five years. Though he didn't have the massive strength that Mark had, his martial skills were also impressive; he was fast and focused, and knew how to make the best use of his power.

"This is such a great time to be alive!" exulted Joe as he completed a centuries-old complicated pattern of moves known as Bassai Dai. "So much is happening in the world, and now we get to be a part of it—as Starmen!"

Mark's eyes glowed. "Travel to the outer planets, and probably even beyond! All made possible by Starlight Enterprise!"

David stepped out to the center of the field to perform a pattern. He was usually known as "Zip" because his friends had quickly learned that he had trouble sitting still. Full of energy, he



was always looking for something to do, moving from one goal to another and achieving almost all of them. His face assumed a look of fierce determination and he cried out the name of his pattern: “Jion!” He initiated the ancient form that began with a lightning fast set of blocks and high kicks in the air.

“Starmen!” cried Joe when Zip had completed his pattern. “We’ll get the choicest assignments, the most exciting exploration missions! And Mark! —maybe the faster-than-light drive will be produced in our lifetimes!”

Mark shook his head but he showed a lopsided smile. “Too good to be true, Joe! What do you think, Zip?”

Zip ran his sleeve over his forehead to wipe away perspiration as he joined his friends. “Maybe,” he said. “Starlight Enterprise seems to be able to achieve almost whatever it sets out to.” He snorted. “I’ve already got my first assignment.”

“What?!” his friends said together. Their expressions showed admiration and youthful envy.

“No need to feel jealous,” Zip grunted. “I’ve basically got a desk job. I’m going to Mars to carry out an experiment in realtime transmission. It’s not scheduled until July 4, so after graduation I’ve got a few weeks to get oriented to the assignment and pack. I leave the Moon for Eagle City in mid-June to get properly set up on time. The other terminal will be in SE’s offices in Amundsen City.”

Amundsen City had been named after Roald Amundsen, who in 1911 had become the first explorer to reach Earth’s south pole.

“That’s my father’s project!” exclaimed Mark. “New technology that uses tachyons to achieve faster-than-light communication! You’re lucky! I wonder why they didn’t choose me for that assignment!”

“I don’t know. Richard gave it to me himself at the end of my interview.”

“Will they give you a ship of your own?” Joe asked.

Zip pursed his lips and nodded. “A new ship called the *Star Ranger*. It’ll be waiting for me, with a crew.”

“Well, Zip, you deserve it!” said Mark magnanimously. “I

imagine Joe and I'll get our first assignments before too long."

Joe began to run in place. "Let's spar!" he challenged. "I need to work up an appetite before dinner!"

"Your appetite's always worked up," responded Mark, "but I'll take you on. Zip can spar the winner!"

"Get ready, Zip!" cried out Joe. "I'll be ready in a second or two. The bigger they are, the harder they fall!"

"Yeah?" said Mark, taking a position opposite Joe. "You're about to find out that the bigger they are, the harder it is to make 'em fall!"

"Groundless words! Mere boasts!" cried Joe. "I'll only be in trouble if the rest of you moves as fast as your mouth does!" The two made a formal bow to one another, and then with a powerful cry Joe leaped at Mark with a robust front kick followed by two punches. Mark deflected the kick easily, blocked both punches, and then countered with a heavy blow of his own. Carefully controlled, it snapped off Joe's chest even as Mark quickly raised his other arm to ward off another punch from Joe. Joe stepped backward and at the same time launched a horizontal kick that caught Mark in the abdomen.

"Lucky!" called out Mark.

Joe retaliated with a second kick that paused low to draw Mark's attention, and then flew upward to his head. Mark barely stopped it in time, blinking as he raised an upper block. Then, with the same leg, Joe launched a third kick that caught Mark in the ribs.

"Hah! 'Lucky' again!" shouted Joe gleefully.

For the next fifteen minutes the three friends exhausted themselves, taking turns sparring, teasing one another with friendly taunts, and laughing.

The sun approached the horizon, appearing to flatten out slightly just as it touched the edge of the sea. A shivering line of molten orange extended from Starlight Academy across the southern Pacific to the farthest boundary of sight. Tall palm trees became narrow black silhouettes as the light failed. When the last orange glow of the sun disappeared, a late autumn chill

suddenly set in.

“Whew!” said Joe at last, blowing out his breath and bending over with his hands on his knees. “Let’s get down to dinner. We’ll hardly have time to shower.”

~

Ban Zou Men placed the last datatile down on his oversized desk, and then shifted it slightly with his thumb so that it lay precisely on top of the stack of others. There was one tile for lists of personnel both on Mars and in the Asteroid Belt, another for files of correspondence with selected leaders with a subfile on strategy and timelines, and yet another tile with information about resources and inventories.

The large man swiveled in his leather-bound chair and faced an open place in his office. “Home,” he said. A colorful map of a portion of Mars, nearly an entire hemisphere, appeared on his beamscreen, a display of pure photons in a rectangle of air. Fondly, almost without thought, the man touched the site that indicated where he lived. His finger passed through the air where the image was held in place.

“Eagle City,” he said, “one mile.” The beamscreen immediately narrowed down to provide an aerial view of the settlement inside Eagle Crater from an altitude of one mile.

Close to half a million people lived on Mars; of those, almost 100,000 lived in Eagle City. The city had been named after Lee High Eagle, the first man to set foot on the red planet in 2014. It had become the grand port and largest population center of the red planet.

Eagle City had been founded under the auspices of Space Command, a quasi-military agency comprised of representatives of most of Earth’s governments. The agency was responsible mostly for communications, research, coordination of exploratory missions, and general troubleshooting.

The settlement was now the capital of Mars, located in what once had been known only as Crater 91, a deep crater twenty to

twenty-five miles across and about 25 degrees north of the equator. The basin was filled with air like that of Earth, and the people who lived there did not need to wear space suits. The atmospheric pressure was not artificial but was generated naturally.

When Earth decided to establish a permanent base on Mars in 2023, Space Command chose a deep and expansive crater, where it was possible to create and maintain the most Earth-like environment. It had to be large enough to contain factories, houses, a full-sized space center, mines, refineries, and fields for growing crops, and deep enough to retain its atmosphere. The agency only wanted to do this once, so to get the most for their money they chose a crater large enough to serve their needs for quite some time.

Eagle City became a fairly prosperous center of population, but disasters on Earth in the middle years of that century had caused the city to become all but abandoned. In better times, Space Command had re-established the city and it had grown steadily ever since. Old buildings were being reclaimed and renovated, and new ones were being built.

"Spaceport," said the man, "full screen." The beamscreen narrowed the view to present a detailed overhead vista of Eagle City's spaceport.

"Tower—and one hundred yards margin to perimeter." The view narrowed yet again. For a long time Ban Zou Men scrutinized the display; then he said, "Terminate." The beamscreen vanished. He turned his chair back and pulled it up close to the desk.

"Putnam, usual encryption," he said, calling his interplanetary communicator into action. The signal went out to somewhere in the Asteroid Belt.

"Sir?" The voice came through the top-quality speaker after a delay of about four minutes. Though it was impossible for the conversation to be overheard, had there been an eavesdropper he would have sworn that there were two men in the room.

"Final check is completed," announced Ban Zou Men. "The

assault on Mars will take place on July 4. Starlight Enterprise is conducting a realtime transmission experiment on that day, and we must be in control of Eagle City before that experiment transpires. You will bring our forces in at precisely the time we have planned.”

Four more minutes passed before Putnam responded.

“We can accomplish our assignment on that date without fail, sir. I assume that our allies in the infrastructure will be prepared by that date?”

“You do not need to question that, Mr. Putnam. If they could not be ready I would not select that date.”

“Yes sir,” responded Putnam four minutes later, with the tone of one who has been mildly chastened.

Ban Zou Men closed the communications circuit. *Everything is in place*, he reflected. Years of preparation, planning, quietly gaining influence over key leaders in Martian leadership then controlling them by threat or graft, subtly undercutting the resources and ability of the authorities to respond to a real attack—this had been his plan and it was now coming to fruition. When the attack came, it would be swift and effective—and the best part was that no one would see it coming. Civilization had been peaceful for a long time. People were soft.

Ban Zou Men pushed away from his desk. “Shut down securely,” he said. With a small effort, he heaved himself out of his chair and walked to the door. As he approached the portal, it opened, and he left his office. The door shut behind him.

## Chapter 2: Three New Starmen

THE GRADUATION CEREMONY was completed. With nearly three thousand graduates, each department had awarded its certificates separately throughout the day. Now as evening approached, more than 25,000 people had gathered in the Starlight Stadium—almost full capacity not only for the stadium but for the floating complex that was Starlight Academy itself. The graduates, their

classmates, and guests filled nearly every seat in the open-air arena. Dignitaries from the world's governments, private organizations, and media teams were present in force. Richard Starlight and a few others had made the customary congratulatory remarks to close the events associated with graduation. Now every person sat in silence. The moment of creating new Starmen was nearing.

The graduation ceremonies were carefully timed to conclude well before the onset of dusk. When all was finished, the entire company remained in place without speaking a word. From the occasion when the first Starmen were created almost a half-century earlier, the ritual had changed very little.

Thomas Starlight, founder of Starlight Enterprise, had designed the ceremony of creation with an assiduous eye toward the meaning of every action and symbol. The silence of the audience was to be strictly maintained until the appearance of the first star of the evening. That sign launched the beginning of the ceremony of creation—the first starlight to shine in the fall of night.

On only two occasions from the beginning had inclement weather threatened the ceremony. In both cases, the clear dome that covered Starlight Stadium was deployed; external sensors detected the appearance of the stars through clouds and rain, and provided an image of the heavens on the surface of the dome. Even if it were raining, inside the dome the dusky sky was made visible and the first star identified.

Tonight, May 20, 2151, a storm seemed to be brewing in the northwest. Ugly dark clouds scudded along the horizon, growing moment by moment. Still, overhead the sky was clear and the dome over the stadium had not been deployed.

For more than fifteen minutes the great crowd had sat in expectant silence. At one end of the arena, three young men waited nervously. Opposite them, more than a hundred yards distant, was the dais where Richard Starlight would preside over the ceremony.

Thousands of pairs of eyes scanned the heavens. From deep

blue the sky turned gradually to violet. Hearts beat a little faster than usual.

Suddenly there was a star!

“A star, mommy!” whispered a small voice, heard by only a few.

“Shh!” his mother responded.

The music had already begun: a small, quiet sound—an oboe playing a haunting melody all alone. Gradually it was joined by violins, and then drums beating a patient but rhythmic pattern. The ring of bells came through from time to time.

From the far end of the stadium, David Foster, Mark Seaton, and Joe Taylor began the long walk to the dais. The music came together into an inspiring march. As they walked forward, holograms appeared in a long line on either side, facing toward the middle—the greats in the history of exploration and aviation. The three passed slowly down the aisle that lay between these solemn, stately figures.

First were images of primitive peoples who had crossed deserts, land bridges, and sailed ancient oceans to populate the Earth. Eventually came images of South Pacific islanders, Saint Brendan, Christopher Columbus, Magellan, and Drake. Then appeared Leonardo da Vinci. Farther along Orville and Wilbur Wright took their positions. Igor Sikorsky, Charles Lindbergh, Amy Johnson, Amelia Earhart, James Doolittle, Charles Yeager, Jacqueline Cochran, Yuri Gagarin, John Glenn, Neil Armstrong, Lee High Eagle—they all appeared as the Starmen strode forward, bearing them company and encouraging their walk forward.

At last, Thomas Starlight himself appeared, and then the likenesses of the Starmen who had preceded the three. They appeared in the order of their creation, beginning with Ezra Hill, Starman number one. With pride, David Foster passed the hologram of Starman number 101—his father, Allen Digby Foster.

When the hologram of Kathryn Mullaney, Starman number 209 materialized, the three young men had come to a stop before

the dais. The music had grown to a crescendo with trumpets and tympani. With a crashing flourish, it played its final note.

For thirty seconds, no one moved. Then the voice of Richard Starlight broke the silence.

"All stand!" he commanded. As one, the audience came to its feet.

"Mark Samuel Seaton!" called the voice again. "Come forward!" Mark approached the dais. When he was in place, Richard and several attendants descended until they faced Mark. The lights of the arena suddenly went dark. Mark removed his outer clothing and stepped into the red uniform of a Starman, presented to him by Richard Starlight. When he was clothed, Richard called out, "Light in the darkness!"

The lights came on again. Mark Seaton stood in place, dressed in Starman's red!

"Greet the new Starman!" Richard Starlight invited the crowd. The pent up emotion found ready release in a huge outpouring of applause and cheering. When at last the noise died down, Richard held up his hands in a mute appeal for silence. After thirty seconds he called out another name.

"Joseph Lindholm Taylor!" The ceremony was repeated.

"David Leland Foster!" A third time the lights fell and came on again. At the end, there were three new Starmen, standing proudly and impressively in their new red uniforms.

The applause went on seemingly without end. Overhead now, there was a spangle of stars. Starlight lit up the night sky, except in the northwest where the clouds were rapidly growing, boiling and seeming almost fiery. Within minutes they would engulf the Academy.

"Looks like a fierce downpour to me," muttered Mike Dodd, head of the janitorial crew at Starlight Academy. He and his two assistants, Jonathan Cooper and David Baumann, were idling unobtrusively in the entrance to the tunnel that led to the maintenance center, waiting for the ceremony to come to an end.

"Yup," agreed Jon, and David nodded.

"Storm comin' in for sure," David said sagaciously. "Those



clouds are blowin' up fast."

"Gonna make our work more difficult," said Jon.

"As always," agreed Mike, with a snort.

The first surge of precipitation spattered down on the field.

"Guess I'd better put up the dome," said Mike. "You two get your crews ready. This ceremony's about over."

~

Less than four weeks later, at another place far away, a meeting was coming to an end. About half a dozen men had been in council for over an hour. They were tense with excitement.

"We've been preparing for many years, Captain," asserted a young man with curly gold hair, wearing a gray uniform. "We're ready!"

Captain Troy Putnam was a slightly overweight man in his forties with short, reddish-gold hair. He exuded confidence and determination.

"Mr. Zimbardo?" the Captain asked, addressing a thin, wiry man to his left. The man had thick, black hair and a beard to match.

"I agree, Captain," said Lurton Zimbardo. "The personnel are eager to be away. They only wait for your order."

"Then we will depart now," decided the Captain. "Get the captains of the Gray Fleet to oversee the launch. Let's go!"

The men rose from their chairs. They were excited. A few were smiling, others looked grim. They saluted their leaders and were dismissed.

Their location was a large potato-shaped asteroid that rotated slowly as it swept in its orbit around the sun. Roughly forty-five miles long and twenty-five wide, it was made almost completely of iron, barren of any known valuable minerals. No charts showed its location; it had no name. The asteroid was located in a dense and little-traveled section of the Asteroid Belt. It was unlikely that spacemen would discover it by chance.

The asteroid was uncommonly dark. In places it had been

further darkened with a charcoal-colored, sponge-like material. Numerous solar panels of advanced design were carefully embedded and hidden over its surface. The energy generated by these panels powered an automatic sheathing system that bent any standard radar waves around the asteroid as water flows around a rock in a stream. To the casual or even careful observer, the asteroid did not exist. It could only be detected by the effects of its very slight gravitational field or when it obscured the stars behind it.

A few miles below the surface was a great complex of structures. Towers and terraces were connected with gantries and covered stairways. The buildings contained factories, laboratories, gymnasiums, barracks, dining halls, warehouses, and centers for communications and conferences. The slow rotation produced the equivalent of low gravity for the inhabitants.

After the men left their meeting they went quickly to several buildings that were set aside as barracks and recreation areas. Each went to a pre-arranged site and called together the men who were inside.

It was a gathering of malcontents, adventurers looking for easy money or people to bully, fugitives from justice, and a few hardened criminals. Over a long time, under the rigid and invisible control of Ban Zou Men and assisted by his own second-in-command Lurton Zimbardo, Troy Putnam had gradually formed a network of these volunteer laborers and leaderless opportunists with a plan whose boldness was matched only by its being completely unsuspected.

At every gathering point the message was the same: "Put on your uniforms and prepare for lift-off. We will begin departure in less than two hours." Excited men began to suit up in the ash gray shirts and pants with black trim that Captain Putnam had designed to build a sense of camaraderie among the men. The uniforms had been reserved for the moment of departure and were now donned with pride. The men began to enter the fleet of ships in great numbers. Last minute items were hastily placed on

board.

When all was ready, the command was given: "Seal the launch site!" The shipyard was marked off by a great, clear wall that divided the huge launching pad from the inhabited complex. The many passthroughs in the wall were shut and sealed and the atmosphere was pumped from the launching pad and condensed into holding tanks, leaving a vacuum nearly identical to that of space.

Outside, the sun became visible over the horizon and the shadows receded from the hollows, pits, and lee sides of hills. Near the top of a low bulge a hairlike antenna with a small disk on its top began to turn slowly. It resembled a metal flower. It was scanning the immediate area of the Belt, to learn if there were any other spacecraft nearby. As expected, there was none.

Just to guarantee that the inimical fleet would pass through the Belt undetected, Putnam sent a private signal to an operative at the station on Ceres that monitored Space Command's Asteroid Belt radar network. Upon reception of the signal, this operative activated a program. Weeks before, she had placed a small computer virus within the controls of every radar satellite in the Belt. On Putnam's command, she activated the virus, thus burning out the hardware and making that part of the radar network go down. Now, no one would detect the fleet's passage through the Belt.

It would take weeks to repair all the satellites, and by then Putnam would have been well situated on Mars. When an investigation was made into the cause of the satellite failure, it would be found that a virus was responsible. Putnam expected to have a stranglehold on all Martian settlements and airspace at that time. Speculation would point to him as the perpetrator, but by then it wouldn't matter.

It was time for the fleet to depart from the asteroid. After a moment, in one shallow depression at the widest pole of the dark body, a tiny, star-shaped crack opened and gradually became wider. In moments, a huge bay yawned into airless space, revealing an enormous tunnel. The orifice, a dark and foreboding

void surrounded by stone and iron, stretched back into the depths of the asteroid.

There were a few buildings on the sides of the passage, sculpted out of the black material of the asteroid and for that reason almost unnoticeable. They were evidently guard posts and control stations for a huge airlock. Tall, narrow windows were lit with a warm yellow light, tinged with orange.

Through the airlock, far below and within the asteroid, the fleet of spacecraft sparkled with the light of the asteroid's morning. More than two hundred craft of various types were anchored in the large cavity.

By turns, the ships began to depart from the asteroid.

Meanwhile, on Mars Ban Zou Men had given orders to selected personnel under his influence. Work schedules for July 4 had been arranged so that the key positions for Martian defense and communications would be manned by those loyal to him. The few military-level laser cannons would fail to work for lack of a small but critical piece of circuitry.

The fourth planet was not entirely under the influence of the hidden and unsuspected canker within its citizenry, but Ban Zou Men was content. Troy Putnam should have an easy victory. The large man mused as he sat in his office, going over the plan in his head one more time.

No one had the slightest suspicion. Even prestigious Starlight Enterprise had sent only one Starman to Mars, and he was a new and raw beginner. Nearly all other Starmen had been dispatched on a variety of assignments—a large contingent to the solar project on Mercury, dozens scattered throughout the settlements and projects in the Asteroid Belt, and most of the others to the realm of the Outer Planets.

No—he saw no flaw, no weakness. He rang for his tea to be brought to him.

~

In late June, new Starman David Foster eased his ship, the *Star Ranger*, down onto the landing field on the edge of Eagle

City. The two-week journey through the Inner Planet field had been routine except for the procedures that Richard Starlight had requested that he conduct while en route to Mars.

David had made a variety of measurements and taken a number of samples of the solar radiation and atomic and subatomic particles caught in the solar wind. Then he had launched his samples in a small and swift space torpedo to the Starlight Research Base on Mercury.

With a twinge of nervousness behind a show of confidence, the new Starman directed his crew of three.

"Please deliver the realtime transmission equipment to the laboratory they've assigned to me," he ordered. "When everything is in place, you'll all have six days' leave. A week from today, you'll be going home with the next Starlight ship that's returning to Luna. Let's hope that all goes well."

"Yes sir, Starman Foster," replied Cambria Aviles, his navigator. "Good luck on the experiment!"

"Thanks," smiled David. "Enjoy your leave!" He stepped over to the airlock. In a few minutes, he'd be checking in to the Space Command facility adjacent to the field.

### Chapter 3: Attack on Eagle City

"TELL ME again how realtime communication is possible, Dad." New Starman Mark Seaton was addressing his father, Dr. Keith Seaton. They were on opposite sides of what at first glance appeared to be a large radar dish.

"We're just reaching into the darkness, here, Son," answered Dr. Seaton, grimacing as he wielded a tiny set of pliers. "Give me the reading now." They were working together to calibrate the meshing of two sets of gears in the box at the base of the dish. Though he was just barely past his eighteenth birthday, Mark had tremendous skill in working with complex machinery, especially large engines. He put his brawn to good use whenever he worked on rocket propulsion systems—which happened

frequently in his work for Starlight Enterprise.

Mark and his father were on the Moon on the far edge of the sprawl of Starlight Enterprise's manufacturing complex. Amundsen City, located at the south pole of the Moon in Shackleton Crater, stretched away to one side. Father and son were communicating through the intercom system on their spacesuits as they worked on the top of a low building. On its roof was a maze of pipes, disks, ladders, antennae, and heavy equipment.

Mark glanced at the small screen on the laser calibrator he had pointed into the box's interior and named a figure. Dr. Seaton made a tiny adjustment.

"We know that light cannot go faster than 186,000 miles per second, and that nothing with mass can exceed that speed," continued Dr. Seaton. "But tachyons have no mass and therefore are not restricted to the ceiling of 186,000 miles per second. We don't really know what tachyons are, but because of their nature, whenever we harness their flow we can push them in the direction we want and make them take on patterns which will carry information."

"Well, how can you control it?"

"Just a second, Mark. We're about done here, I think. I'll ask Jack to check it out and make sure." Dr. Seaton gestured to a tiny humanoid figure that had been seated on his right shoulder, signing to him that he should check out the work inside the gearbox. The individual leaped into the opening that Dr. Seaton's hands had just vacated and vanished into the array with its complicated mesh of gears. A similar humanoid figure was clinging to Mark's shoulder, peering into the machinery under his hands. Their small assistants were not wearing spacesuits and therefore were not connected to the radio communications system.

"We're not sure we *can* control it, Mark," continued his father. "That's why I say we're just reaching into the darkness with this experiment. We've already done realtime transmission successfully between the Earth and the Moon. This test that

David is conducting is the first between interplanetary distances. We want to know whether the signal strength will fail over a span of millions of miles rather than just two or three hundred thousand. If the signal makes it, can we keep it focused over the long distance? Obviously if we can't, then realtime communication is not worth doing. We only need it over interplanetary distances—someday, I trust, even farther.”

Their diminutive assistants were Jack and Jill, two citizens of Titan, the great moon of Saturn. Titanians were noted for their remarkable dexterity and phenomenal insight into mechanical and electrical systems. These two were long-term visitors to Earth's settlements and were called “Jack and Jill” only because very few humans could pronounce their native Titanian names, M'hsjewantroi and Tr'hal-maheswari.

Earthmen had met the Titanians during the first Deep Space Exploration in 2130, which had been sent to explore Saturn. Not only was the expedition a success, it also resulted in the astounding and completely unexpected first encounter of Earthmen with intelligent extraterrestrial life. The expedition discovered humanoid beings barely half a foot tall living on Titan, the mysterious ringed planet's largest moon.

Titanians can live in a broad range of temperatures and even for a time in airless space. However, they do not like to make a habit of it, as it is uncomfortable—similar to what it would be like for humans if they stood outside in a heavy rain. However, for the brief time necessary to make the final adjustments and to have their tiny hands available for the necessary work, Jack and Jill were working without spacesuits.

The Titanians were a highly skilled people. They had developed a network of several cities on Titan and their race was prospering. They had great skill for building complex machines and were also adept at building simple spring and gear-driven apparatus. After the encounter with men from Earth, the Titanians learned about electronics, rocket propulsion, and many other advances that Earth science had developed. They showed great aptitude and learned quickly. Connection between the two

peoples had been friendly from the first contact.

While Jack made the final inspection of the gear box, Mark looked up toward the horizon. The crystal and metal towers of Amundsen City sparkled in the brilliant sunlight. Since there was no atmosphere the moon shadows were sharply delineated and stirred Mark's deepest sense of appreciation of the beauty. The scene almost never failed to impress him deeply.

The latticework of buildings in Amundsen City, constructed in a low-gravity situation, appeared almost too frail to exist but marked the site of the largest city in the Solar System. Most of the buildings were underground; nevertheless, the amount of construction on the surface was impressive. Amundsen City was home to nearly eight million people.

To one side of the city was the expanse of the Starlight Enterprise plant. Hundreds of rockets were parked on the launching pad. A few miles away Mark could see the colossal geodesic dome that enclosed Armstrong Forest.

"The bulky equipment we need for this experiment can be reduced by many factors if we're successful," said Dr. Seaton, eyeing Jack inside the box. Mark turned his attention back to his father. "That'll be a tedious and time-consuming job, though. The engineering department will be responsible for that. Until they finish the job, realtime transmission will only be possible at major spaceports. Afterward, the equipment can be installed in spacecraft."

"Guess we're all set," concluded Mark, when Jack emerged from the opening. Jill jumped from the Starman's shoulder and helped Jack close the hatch. The four of them went over to the airlock on the roof. After shutting and sealing the door behind them Dr. Seaton pressed the red button on the wall, and the airlock filled with air. Then they descended into the room below where they removed their spacesuits and hung them up carefully in storage cabinets.

Dr. Seaton looked at his watch. His thick black hair and brown eyes matched those of his son. The experiment was scheduled to begin in a few moments. They entered the stairwell that led



down to the central section of the building.

~

At about the same time Mark and his father were stepping down the stairs, Starman David Foster on Mars was carefully making some adjustments at a large computer screen. He was in the flight control tower in Eagle City. His red hair was almost a stereotype and a fitting symbol of a rather volatile temperament. His gray eyes, however, were the color of new steel and expressed his well-disciplined nature. The intensity with which he stared at the screen as he worked was evidence of a high-class brain.

Several curious technicians stood around silently, afraid to speak for fear of breaking his concentration. Many other terminals were nearby, roughly half of which were manned by other technicians.

David looked at the large calendar-clock on the wall and noted that he had about ten minutes to wait. The instrument showed the two readings that were customary throughout civilized space. One showed the local date and time, and the other read, Wednesday, July 4, 2151, 8:50:27 p.m.—Earth time, the standard for all interplanetary commerce.

“A historic date in more ways than one,” he said, making conversation. “At least it will be if we’re successful.”

“How’re you feeling, Zip?” asked Mel Golden, one of the technicians of Space Command who was helping David with the experiment. “Has your biorhythm adapted to the Martian day yet? Those extra forty-one minutes can make a difference that catches up with you! You’ve only been on Mars a week, so you’re probably still feeling the change.”

“I’m pretty well adjusted now,” said Zip. “Thanks for asking.”

“If this thing works, space travel will never be the same,” marveled John Stepanovich, another technician. “Imagine being able to call home without waiting up to eight minutes for each exchange.”

“Or getting your orders without delay, either,” added Mel wryly.

Zip’s glance moved to the great windows of the control tower. Aimlessly, he scanned the high walls of the crater in which Eagle City was situated, and then returned his attention to the console in front of him. He was nervous, not just because of his responsibility in the coming experiment, but because it was his first assignment as a Starman.

With the current locations of Earth and Mars, normal transmission time was seven minutes and 46 seconds. If the test worked, communication would be virtually instantaneous.

Zip looked at the clock. “Five minutes to go,” he announced unnecessarily. When the pre-arranged time was only one minute away, he called out, “RT transmission in one minute. Overriding all other communications in fifty seconds.”

The RT circuits lit up, showing that all was ready. He had tested the circuits several times during the morning with success each time. He expected no failures now, but that did not ease his nervousness by much.

At Starlight Enterprise in Amundsen City, Dr. Seaton was seated at a similar console. As his clock approached the pre-arranged time of 9:00:00 p.m., he initiated the transmission. On Mars it was approaching 5:04:23 a.m. The screen glowed as Dr. Seaton entered the coordinates for Eagle City. Bypassing the “send” button, which would dispatch a message through ordinary space and time, he instead touched a button marked “RT Contact.” If the experiment worked, his image would appear instantly on the screen where Zip and his audience waited, and Zip’s image would appear simultaneously on the screen on the Moon.

~

The fleet from the Asteroid Belt zoomed through space toward Mars. In the lead ship, Captain Putnam sent a message to Eagle City: “Captain Troy Putnam of the mining ship *Silver Spear* requesting permission to land with cargo of space pearls.”

David overheard the strange request and was puzzled by the immediate response from Mike, one of the flight controllers. "Permission granted. We will be ready for you." All communications were to be suspended during the time of the realtime transmission. His suspicions aroused, Zip could feel his senses rising into a state of greater awareness of his surroundings. His training as a Starman was coming into play.

The fleet came within standard radar range of the control tower on Mars. One of the men in the terminal, still on the job while others were standing around Zip's console, noticed that several hundred other ships followed the *Silver Spear*.

"What's this?" he shouted. He looked over to the controller who had responded to Captain Putnam's first message. "Hey, Mike! What are all these ships?" Even as he expressed amazement, his computer screen blurred over into snow.

At David's screen, an image of Keith flickered briefly, and then also vanished into snow. All other screens except the one manned by Mike showed snow as well.

David leaped from his chair and moved toward Mike's screen, suspicion etched all over his face. "Stop right there, Starman!" a man with a drawn weapon commanded. Other controllers looked on with shock, some rising from their seats. Three others, who had quietly spaced themselves in strategic positions around the tower room, also pulled weapons. They ordered the other controllers away from their terminals.

Now Mike turned back to his communicator and said simply, "All is secure. You may proceed, Captain. The realtime transmission experiment was not completed."

"Good work. Expect us momentarily," came the response over the communicator.

"Mike! What are you doing? What are you all doing?" asked Mel, in a stunned voice, looking around in shock. He had never been threatened with a weapon before. Mike didn't answer and didn't even turn to look. He just gazed out of the window into the quadrant where the incoming fleet was soon to become visible.

Other technicians were working speedily at several consoles. Zip noticed that they were shutting down several defense systems and muting several communication programs within Eagle City. The first program to be silenced was the interplanetary communication system. In less than a minute the spaceport was “unplugged” and in the control of traitors. The only communication systems remaining active were a selected few that had been pre-programmed to override a “scrambling” order.

Reports began to come in to Mike from various sectors of the city.

“All secure in Sector B, Mike. No trouble.” Zip recognized that Sector B was the warehouse area.

“A little resistance in Sector D, but we’ve got it under control now. No problems.” Sector D was the spaceport.

“Make sure that all personnel are removed from the targets at once,” said Mike on the channel that communicated with all sectors of Eagle City. “The targets will be destroyed within two minutes.”

Zip looked over at the technician closest to the doorway that led out of the room into the interior of the tower. The man was keeping his eyes on him, his weapon steady and level. Zip glanced away and began to scan the room.

In moments, the fleet became visible. With sinking heart, David watched as laser cannons from several of the lead ships fired into the city, doing damage to certain critical installations. Smaller targets erupted in terrifying sudden explosions, and displayed the translucent concentric shells of rapidly expanding smoky vapor characteristic of strikes from pulse lasers. The vaporous shells moved out from their targets at great speed, ever diffusing and lighting up the ground beneath them until they dispersed completely.

*They’re destroying sites that have been pre-selected,* he thought. He concluded that the attack was designed to do only minimal damage to a few critical power plants, supply depots, and communication centers. It dawned on him that their intention

was probably to take over these systems, not destroy them. He observed also that the attackers had a lot of help from the ground, and concluded that the assault had obviously been planned for a long time. Much of it was an inside job.

Zip's training as a Starman had enhanced his reflexes so that he could appear to be relaxed and submissive, but then move with unexpected speed. His suspicions being roused before any clear sign of treachery, he had already marked out the positions of the men in the room and found the best escape route. All he needed was the right opportunity.

He had allowed several minutes to go by from the time the first weapon was drawn, and had made no sign of resistance or defiance. This had lulled his captors into overconfidence. By this time they were all watching the fleet approach Eagle City and the laser beams shoot into the center of the city. At the most advantageous moment, in the blink of an eye, Zip sprang into action. Making no sound and wasting no motion, he charged the man at the door. One moment he had been standing with slumped shoulders, and in the next instant Zip was gone.

His speed was such that the man he bowled over was unaware of what had hit him. He was glancing out the window with his weapon drawn, and the next moment was outside the door on his back, his gun skidding across the floor and then bouncing down the stairwell. Even at that, Zip was down the stairs faster than the gun. He had turned the corner and was out of sight and out of range before anyone in the tower even moved.

"Stop him, you idiots!!" shouted Mike. "Get him! Run!!" He made a furious gesture with his hand, and three men ran out the door, leaping over their fallen comrade.

Zip's pursuers ran quickly but confidently through the corridors of the tower, glancing into passageways and searching the most likely hiding places as they hurried out. Within a short time they had emerged from the front door. In the meantime, Mike had radioed several guards in the quad at the front of the terminal to watch for the fleeing Starman. The red suit would be easy to spot.

A dozen men scattered through the square in front of the control tower. They scoured buildings, peered down alleys, and searched behind storage units. They checked ladders and rooftops. Gradually their confidence turned into doubt and then anxiety. The Starman had disappeared.

Unknown to them, Zip had grabbed a gray cloak from a rack on the second floor of the tower, thrown it over his red uniform, and sped to the main door that led to the street outside. After he'd reached the door, Zip instantly changed his attitude and his pace. He strolled casually into the square. He knew his ploy would last only seconds, but he gambled that it would be long enough for him to find cover and disappear from the sight of his pursuers.

He entered the building adjacent to the tower and descended into the basement. As the frantic search hit high gear outside, he entered a room that was, at that moment, unoccupied. He drew out a magnetic key, dialed a number on it, and passed it over a design on the wall. The panel opened, and Zip entered one of the tunnels that had an access point at this particular building.

There was a network of tunnels, not yet fully explored, that connected various parts of Eagle City and beyond. Their existence was not common knowledge and their origin was unknown. They had been discovered during the first colonization period of Crater 91 and accesses had been constructed in a good number of the original structures. When the city had been all but abandoned, the tunnels had been overlooked and then forgotten by nearly everyone.

Since they had been constructed before human beings had landed on Mars and were therefore clearly the work of an unknown extraterrestrial race, their existence had been kept secret until they could be further studied. Starmen, however, were among those who knew of them and their primary entry points—especially the Starmen who were assigned to Mars.

The major tunnels near Eagle City had been discovered and were frequently used “unofficially” by the denizens of the “lower strata” of the Martian population, who had their own reasons to

keep them secret. The complete extent of the tunnels was not known to anyone. Further, most of the new officialdom on Mars was unaware of the existence of the tunnels.

Once he was inside the tunnel, Zip closed the door. Without the magnetic code, the door would not likely be discovered or suspected, and could not easily be opened if it were. His suit light dimly revealed a stairway lined with dressed and closely fitted stone blocks, extending downward, and then back out of sight without turning.

Outside, the invading space fleet had landed and assumed control of Eagle City. Men had debarked from the ships in a very organized fashion and run to pre-assigned sites—some into the terminal and others into the city. Within an hour, supplies such as food and water were in the control of the invading pirates and their allies.

Inside the tunnel, Zip drew his communicator from its inner pouch in his uniform. He knew it would be traced within seconds once it was activated. He planned to send a short message and then disappear before his enemies could find him.

Zip adjusted the communicator to the frequency the experimenters had previously reserved for their use during the RT trial. The computer that had been set apart in the Tower for his use had been adjusted to this frequency in the event that the realtime transmission failed. The handheld communicators in common use did not have access to this band at all, but Zip's had been adjusted as part of the RT experiment, just in case a backup were needed. He was particularly thankful for that fact now.

When he was ready, he turned it on, jacking it up to full power to gain the greatest distance, though he knew that doing so would drain the battery in short moments. Dr. Seaton and his support team would be expecting a message from him after the apparent failure of the RT attempt. Well, he would send them one—a far different message from anything they could possibly anticipate!

Speaking quickly but clearly, Zip explained the situation and sent out a call for help. He was able to provide the information that a pirate group had landed with a great force of weapons and

spaceships, obviously long-prepared, and that there were many in high positions on Mars who were loyal to them and had clearly been preparing for the attack for some time. The message went out even as Zip watched his batteries fade to zero power.

Several observers at various screens inside the captured headquarters, looking for just such evidence as David's message, simultaneously called out, "Unauthorized communication in Sector H, building 7, basement!" Pirate troops, stationed near the spaceport to enforce the hostile takeover, were instantly dispatched to the site. They arrived in less than a minute, but found the basement empty.

"He's gone! If he was here, he's fled! Search the streets!" commanded the troop leader. Their search was fruitless. David's escape was complete.

## Chapter 4: The Ultimatum

THE TRANSFER OF POWER was made effortlessly. The Starman's escape was the only troublesome part of the pirates' takeover of the settlements on Mars. Troy Putnam quickly sent patrols throughout Eagle City to put the seal on his control of the populace, and gave to each a specific order especially to watch for the Starman. Newly graduated and unproven though he was, the pirates were decidedly uncomfortable with a Starman on the loose.

Putnam took up his position in the tower of Eagle City, formerly under the control of Space Command. Toward noon, the pirate leader was in complete control of the capital city and most of the other settlements on the red planet.

"Prepare the interplanetary communicator," he ordered. "Time to make an announcement."

~



“Sorry, we have no information at this time,” said one of the technicians in the control room of the Space Command center on the Moon. Each of them was handling a flurry of calls coming in from ships in the vicinity of Mars. An increasing number of queries was directed from points on Earth, the Asteroid Belt, and spacecraft in transit. All were asking the same question.

“What’s wrong on Mars? We’ve been trying to raise Eagle City, and there is no response.”

Located three miles from the outskirts of Amundsen City, the center was a huge complex located far underground with communication and information-gathering equipment of the highest quality. The connection between Space Command and Eagle City had been cut off at the same time all other connections to Mars had gone dark.

“Try again to raise them,” said the supervisor. “Try all the frequencies. Use the boosters. Scan the spectrum for weak signals.”

The radio operators had already made these attempts several times. They had checked for unusual sunspot activity and found nothing suspicious. Having no new ideas, however, they ran through their options yet again without result. All incoming messages were then re-routed to an automatic responder with the message, “Space Command has no information regarding the termination of contact with Eagle City. A general announcement will be made when we have reliable intelligence.”

On another floor, astronomers, planetary geologists, communication experts, and space explorers were in conference.

“It can’t be a volcano or an earthquake,” said one, “but I can’t think of any other possibility. Mars has shown no sign of tectonic activity in all the time we’ve studied her.”

“It’s probably just a breakdown in the communication systems,” suggested a geologist.

“Impossible,” responded a technician. “There are too many back-ups for the entire system to go down at once. Whatever has happened, it has affected the entire city.”

“Could it be that a meteorite has taken the settlement out?”

asked another, in a voice that showed that even he doubted that possibility.

“Well, sure, it’s always possible, but we all know how unlikely that is,” said an astronomer. “But even if there *were* a meteor on a collision course with Eagle City large enough to do that kind of damage, it would have been spotted long before.”

Even though everyone was talking, it was rapidly becoming evident that no one had any idea what could have happened to black out Eagle City so completely and so suddenly.

~

Keith Seaton was puzzled. He had caught a brief glimpse of David’s face, and then his screen went dark.

“What happened, Dad?” asked Mark, standing behind him and looking over his shoulder. “I saw him for a second, but then what happened?”

“I don’t know, Mark,” responded his father, his brow furrowed. He pressed the “RT Contact” button once again, but there was no change. He checked the circuits. A few minutes went by.

“Well, I guess something went wrong. Disappointing but not too surprising. It was a complicated experiment. Maybe we shouldn’t have tried to add the video component. I’m encouraged, though, because I caught a glimpse of David on the screen before the whole shebang went down.”

He tried a few different frequencies, then came back to the original, predetermined frequency and pressed the contact button again, but nothing happened.

“Well then,” he said, rubbing his hands together, “open up the standard communicator, Mark. We’ll see if David’s got any report for us.”

A few minutes later, a quiet voice came through the speaker, sounding almost like someone talking through a long tube. The words were barely distinguishable, but the tone of the speaker was identifiable.

“That’s Zip’s voice!” exclaimed Mark. “But the signal’s pretty poor. Maybe the whole computer went down and he’s using the handheld communicator.”

They were silent for a moment, straining to make out the words. The voice sounded urgent, but the message wasn’t clear. None of it could be recognized.

“There’s more,” said Mark, “but I can’t make it out.”

“We’re recording it. We’ll enhance it in a moment,” responded Dr. Seaton. The sounds ended. After a moment of intent listening, father and son concluded that there was no more to be heard.

The scientist copied the recording of the voice, made a few adjustments to the file to augment and clarify it, and played David Foster’s words again. His face drained as he heard the message. His palms cold and clammy, he made another copy of the brief communication. Mark was suddenly very frightened.

“We’ve got to contact Richard Starlight and get this over to Space Command,” Dr. Seaton said quietly. Dr. Seaton tapped into an emergency band and raised the head of security.

~

The officials at Space Command sat around the table in stunned silence after the message was played for the second time. Richard Starlight, Dr. Seaton, and Starman Mark Seaton were seated with Commander John Lewis and others.

Richard had invited his good friend, Robert Nolan, to join the council. Nolan was the founder and director of Nolan Mining Enterprise, a company located on a satellite in an orbit around the Moon.

“One more time,” said Lewis. He was a man about forty years old, with a smooth, round face. His hair was still blond. He and Dr. Seaton had been friends for several years. Dr. Seaton played the message again.

“Urgent!” said the voice of David Foster. “This is Starman David Foster in Eagle City. A large force of pirates has invaded

the city and conquered it almost unopposed. They are supported by a force of traitors within the city, including within the terminal. Their numbers are unknown, but large—at least several hundred. Purpose unknown. Selected sites have been neutralized by laser cannons. Casualties are probably light. I have escaped capture so far, and am in hiding.” (David assumed that those who knew of the tunnels would know where he was hiding.) “I will be unable to make further contact. There is much resistance to the pirates, but—” and here the message faded into silence.

“This is impossible,” sputtered Major Macmillan, a stolid individual known for overreacting. His voice began to rise in volume. “This can’t happen! No one can just fly in to a major spaceport and take it over!”

“We can trust the message of a Starman,” said Commander Lewis. “Hard as it may sound, we can believe that Eagle City is now in the hands of pirates and traitors. The question is—what are we to do about it?”

“We’ll have to wait and see what they want,” advised a slim man in his mid-thirties. “It is evident that these pirates are well organized and well armed. Unfortunately, though we are highly organized, we are not prepared for any military action.”

Another added, “As we all know, since internal fighting and wars on Earth have just about vanished, aside from a few outlaws in the Asteroid Belt and criminals on Earth, there really isn’t anyone to fight against. As a result, the defense systems haven’t been kept in as good repair as they might have been. There hasn’t been any need to develop weapons or even keep warships in good condition.”

“What have we got?” asked Commander Lewis. “Mr. Starlight, what have you heard from Mars Base?”

“All ships on Mars Base, which is SE’s major presence on Mars as most of you know, have been grounded. Apparently there were several traitors among our personnel and they have succeeded in sabotaging all our craft—even the shuttlecraft. All atomic bays were opened and every ship has been thoroughly irradiated to a lethal intensity. They can’t be restored for a few

weeks. Our heavy major manufacturing plants are in the Asteroid Belt and our active projects are in the environs of Mercury and in the Outer Planets. Except for minor industries on Mars, our resources and ability to function will not be affected.”

“Robert?” inquired Commander Lewis.

Robert Nolan, although of slight build, was vibrant with energy. He had a hard time relaxing and was constantly either tapping his fingers together or shaking a foot back and forth.

“We have significant presence on Mars,” he began in his somewhat high-pitched voice. “We have bought up vast tracts of minerals and have constructed many manufacturing plants. We hope to become a significant participant in the market for spacecraft and heavy equipment. I have not had any word from any of my personnel on Mars since the assault, and I fear that the pirates may intend to usurp control of my plants and use them to build their own fleet. If that is their plan, it is distinctly possible for them to do so, if they are not stopped.”

The Commander pursed his lips, and then turned to the man across the table from him. “What are our own resources, Major Shaw?”

“Well, sir,” spoke up the Major. “As you know, the hangar portion of the Space Command complex is, frankly, in a state of neglect. We have put our resources into exploration and research. At best, maybe three hundred ships suitable for a battle in space could be assembled and armed.”

A message came over the intercom. “Sir, there is an urgent message from Eagle City.”

“Transmit it in here.”

“Yes, sir.”

Immediately a firm voice was broadcast into the room.

“This is Troy Putnam, broadcasting from Eagle City. I have taken control of Mars in a smooth operation carried out with the support of many of Mars’ inhabitants. Thanks to the laxity of security and defense operations, it was not difficult for me and my troops to assume command. The ease with which I effected my operation is, in fact, a critical part of my message to you

now. Human civilization has, for long, been effectively undefended. Calls for increased security have not only gone unheeded but have been ridiculed by the leaders of civilization. They are fools!

“The time for this indifference to the security of Mars and that of all human civilization is over. I have learned that there is an alien threat to our entire life, and I will see to it that humanity is not destroyed in the attack I am certain is coming. The alien force is vastly superior to ours and bodes an immediate and dire menace!

“I have no doubt that those in authority who are listening to my voice will believe that I am unbalanced, but I will provide proof in the near future that what I claim is true—shockingly but undeniably true! Do not try to stop me—you will only be working against yourselves. I am no danger to the people of the Earth-Moon system. But if you attempt to stop me or hinder my activities, I will resist with the arsenal at my command.

“Mars is completely under my control and I have the support of the population. Contact with Mars will be prohibited absolutely until I give the word that we are ready to open our ports once again. Until then, no one will be allowed to leave the planet, and anyone who approaches this planet will be warned once, and then shot down. Interplanetary communications will be jammed. We are well defended, and I intend to increase my defensive and offensive capabilities to even higher levels than they are now! If you are wise, you will support or even join me. But I do not think you are wise—therefore I counsel you at least not to oppose me.

“You will hear from me again on my schedule.” The communication ended.

“The man’s a megalomaniac,” spouted Major Macmillan, looking almost apoplectic. “He can’t do it! No one will let him! He can’t have the support of the entire population of Mars!”

“Major, you are correct,” soothed Commander Lewis. “He cannot succeed in the long run, no matter what. But for the moment, apparently he controls Mars.”

“What about this ‘alien threat’ that he mentioned?” asked Major Shaw.

“Foolishness. The talk of a madman,” asserted Major Macmillan. “We’ll have our psychiatric department analyze his message. We ought to have a diagnosis of the nature of his mental disturbance within a few hours.”

As the discussion continued, Mark noted that Richard Starlight was remaining silent. Finally Commander Lewis addressed him:

“Richard, do you have any thoughts?”

Richard Starlight pressed his fingertips together and made a small tent with his hands. “There may be something to Putnam’s mention of an alien threat,” he said at last, cautiously.

“What?” burst out Major Macmillan. His exclamation was echoed by others, but Commander Lewis’ eyes narrowed.

“Oh, nothing definite,” replied Richard. “There is some evidence of intelligent but extraterrestrial presence in the Outer Planets and even the Asteroid Belt.”

“Like the Titanians?” vociferated Major Macmillan scornfully.

“No, Major. Nothing more than legends that our people have picked up in the Belt. Nothing provable. Nothing even that we can examine. Just a pattern of legends. If Putnam is going to provide proof of his assertion, I’d be most interested in what he has to offer. Evidently he came from the Asteroid Belt, and that’s where the legends have come from.”

“Pshaw!” snorted Major Macmillan. “I thought better of you than that, Mr. Starlight! There have been ‘legends’ as long as there have been pioneers and people living on frontiers. Such a lifestyle draws a lot of nutcases and eccentrics.”

“The main question,” Commander Lewis said, “is not what this Troy Putnam believes or why, but what he is going to do.”

As Mark listened, he became more and more alarmed. He realized that the situation was indeed a major crisis. Mars was under the control of a madman who was claiming to be amassing unprecedented amounts of weapons and had control over much of the rocket fuel on the fourth planet.

Commander Lewis glanced at a clock. “It’s nearly 4:00 a.m.,”

he said. "Let's break up this meeting and go to our beds. We'll meet again tomorrow. There should be more information by then."

~

A medium-sized freighter without markings came in to a soft landing on the only level spot on Encke's Comet.

"Touchdown," grunted the pilot. "Get the crew out, ready to work."

"Is the delivery here yet, captain?" asked the foreman.

"Do you see it? No, it's not here—but it's due in about five minutes and these metal men are never late with anything. Get the crew out!"

Airtight portals to the hold were sealed and a large slab on the side of the ship opened like a drawbridge. Eight heavily-suited figures stepped out onto the dark ice, pocked with rocks and ridges.

"How much longer?" asked one of them.

"Any minute now," said the foreman. "Just wait."

"There it comes now!" exclaimed one of the figures, pointing into space. An unmanned spacecraft grew from a gray speck in the sky against a field of stars until it was easily recognizable as a completely utilitarian space vehicle that was hardly more than a large crate. It touched down on the ice not far from the Earth freighter. When it had completely settled, one side opened up.

"Let's go," commanded the foreman.

For the next fifteen minutes the eight crewmembers transferred the contents of the space crate to their own ship. The negligible gravity made the work easy. Each crewmember wore grip-tight boots that made movement on the ice safe.

"Careful with those boxes!" directed the foreman. "Those are the antimatter bombs. One of those things by itself can turn this whole comet into space dust finer'n talcum powder. Drop one of 'em and there won't be enough of us left to snore!"

For a moment the man carrying the small parcel shook with



fright, and the eyes behind his helmet screen opened wide. The foreman began to guffaw.

"You can't set those things off by dropping 'em!" he taunted. "Now move 'em on in. Keep going!"

The transfer of the cargo was nearly complete when a vent in a nearby ridge of convoluted rock and black ice suddenly blew out a forceful stream of ejecta. An immense spray of microscopic vapor shot out with a few tiny pebbles. One man, caught in the jet, was blown off his feet. Separated from the surface of the comet, he began to blow away into the void.

"Get the box!" called out the foreman to the crewman in space. "Get the box before you come back! Don't let a bomb like that float out in empty space, you fool!"

The crewman quickly fired a small jet or two on his suit to stop his tumbling, and then hastened after the box he'd lost when the jet had hit him. He snagged it, reversed position, and then jetted back to the comet's surface.

When everything had been loaded onto the freighter, the great portal on its side was brought back into place and sealed. The hold was flooded with air and the eight crewmembers removed their helmets.

"Good work," the foreman said to the others. "Relax." He strode to the control deck. "We're in, captain," he said.

The pilot grunted. "There goes the crate," he said. Outside the freighter, the alien, box-like ship lifted off the surface of the comet. In less than a minute it was outside viewing range.

"Two days on this comet," observed the foreman, "and we'll be within a day's jaunt to Mars. Guess I'll let Putnam know."

He opened the communicator and sent a doubly-encrypted message to Troy Putnam on Mars.

"Captain Putnam, this is Frost. The transfer has been completed. Twenty-one robotic attack droids and three dozen antimatter bombs are on board. We're on the comet and will reach opposition to Mars in just under two days. We will then launch the payload, which should reach you on schedule. Frost out."

~

Troy Putnam had promptly consolidated control over Mars. Those whom Ban Zou Men had put into positions of authority quickly made contact with Putnam and reported where their hold was secure and where attention was needed in doubtful areas. Several small ships were dispatched to various small towns and outlying manufacturing plants such as those belonging to Robert Nolan. Heavily armed men made their presence felt as soon as they landed, demanding control of administrative offices and especially landing fields and reserves of fuel. The personnel in these areas had never faced armed incursion before, and most capitulated without resisting. Wherever there was resistance, a quick display of force by the pirates showed that it was futile not to cooperate.

Mars Base, Starlight Enterprise's main presence on Mars, was located near the north pole. Since it was farther away from Eagle City than any other settlement and was also very well organized, the treasonous employees were speedily identified and imprisoned before any pirates had time to approach the base. SE spacecraft were grounded but the few laser cannons were hastily restored to usefulness. Mars Base was able to repulse the pirates but was far from any other major population center and unable to take any action. The many tiny, scattered settlements and independent squatters' sites were of no consequence. By and large, Putnam was pleased.

Alone in his quarters, he reported to Ban Zou Men.

"Good work," said the mastermind of the assault. "I am almost satisfied. I am already aware that the final shipment from our alien allies is en route to you. We will keep to the schedule. In two weeks you will launch your major offensive against Earth. One antimatter bomb launched at a carefully chosen target, and you will be able to make any demand you wish, and they shall grant it. Yes, I am almost satisfied."

"Almost?" Putnam managed to squeeze the word out. He knew it was a mistake as soon as he said it.

“Of course, ‘almost’!” bellowed the huge man in his hidden refuge. “You let the Starman escape—*find that Starman!*”

## Chapter 5: Starlight in the Darkness

LATE AFTERNOON of the next day, a moonbus crawled slowly through a scattering of gray boulders. Although the shadows retreated from the beams of the headlights, the feeling of solitude was strong. The driver was Richard Starlight. He had invited new Starmen Mark Seaton and Joe Taylor to join him on the drive.

Richard was very active and did a lot of traveling for SE. At such times he left the day-to-day running of the company to his second-in-command, John Rwakatare, usually called “Rock.” Rock was the head engineer of the Advanced Design Department of SE. Richard liked to work alongside his employees. He had mined ore in the asteroids, put up buildings on Titan, designed and flown starships, and spearheaded some of the exploration trips in the inner Solar System. His wife Jan had a similar personality and interests, and had accompanied Richard on several of the expeditions. Since Richard had so much hands-on experience and knowledge, his employees viewed him as someone who actually knew them and sympathized with them. Nonetheless, Mark and Joe had been more than surprised when Richard had invited them to go for a drive.

Richard broke a long silence. “There is no consensus among the leadership of Space Command as to the best course of action. The debate has been raging long enough. Some think we should send our forces to Mars to drive Putnam off the planet. Others think we should keep the fleet close to Earth in case he attacks. Still others urge that we split the minimal forces we’ve got, while still others think we should humor Putnam and play along with his appeal that we cooperate with him. There is virtually no one alive who has any experience with a situation like this.”

Mark and Joe looked at each other. They didn’t know if they

were expected to respond or not. Before they could decide, Richard spoke again.

“The President is a wise man. He knows the military’s limitations. He doesn’t expect Space Command to eject the pirates from Eagle City. The fact that this ‘Captain Putnam’ addressed his ultimatum to the military bases shows that he has a limited way of thinking. He thinks like a military man and he expects to deal with the government and the military. This is his second mistake—his first was to try to take over Mars in the first place. He has shown his weakness.”

“It sounds as if there is another plan already in the works, sir,” offered Joe.

“That is why we are out here. We have a plan. We will take advantage of Captain Putnam’s weakness. You are the men who will do it. The success of the plan depends completely on its being kept secret. The pirates evidently have some strong support among the population of Eagle City—traitors recruited or planted some time ago. We can’t take the risk that they may have some spies here in Amundsen City—and maybe even in Starlight Enterprise itself. There were a few in Mars Base. We are now several miles from the closest structure, and two ridges separate us from any eavesdropping equipment—unless it were operating on a direct line from space. SE has detected none. I believe that we cannot be overheard out here.”

Richard pulled the moonbus to a hard right, then a hard left, circling a large boulder that nestled close to a crater wall in deep shadow. Then he dropped to a lower gear and ground the treads a little deeper into the gray dust as the moonbus approached the crest of a low hill. A vast spread of stars and star clusters filled the forward crystal window as the horizon dropped before them.

Mark and Joe waited. When the hill was behind them, Richard continued.

“The President asked me to meet with Space Command and take charge of Earth’s response to the pirates. As I said a moment ago, he is a wise man. He knows the value of history and has the gumption to make decisions when a decision is needed.

Whenever people forget their history they vastly diminish their knowledge of who they are. That reduces their options and gives them a very limited worldview.

“History is not a popular subject, even now. Only the older generation remembers much about the Collapse, and only a very few experienced its worst days. But it was only a century ago when Earth went through its greatest crisis.”

Mark and Joe knew their history, for Starlight Academy made sure that history was well taught. They knew well the course of events that came to be known as the Collapse, a fifty-year period when more than two-thirds of the world died in warfare caused by terrorism, famine, disease, and leaderless criminal opportunism.

The United States had suffered along with the rest of the world. An extremist cult group founded in 2038 had been America’s foremost purveyor of terror and mass death. Using tiny atomic weapons, they were responsible for more than two dozen attacks on national monuments and centers of leadership until authorities located the cell in 2061 and put an end to their reign of terror.

Since that time nearly a century earlier, civilization had come far in recovery. Richard Starlight’s father Thomas had founded Starlight Enterprise in 2089. His vision and his work were instrumental in leading the world out of the trauma of the Collapse.

“People don’t want to look back at those times,” Richard continued. “Understandable, I suppose. But someone must, so that the tragedy of those days doesn’t repeat itself. A writer named George Santayana put it this way in a book called *Life of Reason*: ‘Progress, far from consisting in change, depends on retentiveness... Those who cannot remember the past are condemned to repeat it.’ Came out in 1905, if you can believe it.

“When my father dropped his surname and took the name ‘Starlight’, it was a symbol—to himself and to his generation. Born in the last days of the Collapse, he took a name to signify light in the great darkness, as stars are points of light in the

darkness of space. Maybe overwhelming darkness, but still characterized by light, the inspiring light of beauty and adventure, which the darkness cannot overcome. No one had ever borne that name before. It was a new name in the chronicle of human history, a deliberate choice to begin anew.”

Mark and Joe had heard this story before. It was common knowledge, even a boast, of Starlight Enterprise. It was a great mystery what Thomas Starlight’s given name had been, for he had never revealed it. When he founded Starlight Enterprise and rose to fame, he was already known as Thomas Starlight. He had never revealed his birth name to anyone. The boys wondered if even Richard knew what it was.

The origin of the “Starlight” name was legendary, but the Starmen had never heard the story from Richard Starlight personally—and definitely not in so intimate a setting. As the head of Starlight Enterprise spoke, they looked out the windows at the piercing beauty of the star-field around them. Richard continued to drive the moonbus, now moving at a snail’s pace through a huge plain.

“‘Great things are not accomplished until they are first dreamed of.’ My father told me that. He wanted to populate the future with bright visions of things not yet done but that could be done if someone would only take the effort to do them. When he took the name ‘Starlight’ he was choosing to forge a new vision—but not at the price of forgetting the past,” emphasized Richard.

“What do you know of Troy?” he asked suddenly, turning his gray eyes briefly away from the window and glancing at the boys.

Joe spoke up. “Troy was the name of an ancient city, on the northwest coast of what is now Turkey.”

“Good. What else?”

“There was a long battle fought there thousands of years ago,” added Mark.

“Who won? More to the point, how did they do it?” pressed Richard.

“The Greeks won. For ten years they had been unable to breach the city walls, so they constructed a huge wooden horse. Inside they concealed a number of soldiers. They left the horse and pretended to sail away. The Trojans drew the horse inside the city; after dark, the soldiers came out, opened the city gates for the Greek army, and the Greeks entered and conquered the city.”

“Correct, Starman,” said Richard. “This is our plan. You are our Greek soldiers. We are going now to select your wooden horse.”

The boys’ hearts began to beat a little faster; whether with fear or excitement, even they were not sure. Maybe both.

“I don’t understand, sir,” said Joe.

“You will in a moment. I’ve brought you out here to explain,” said Richard. “We are approaching the Field of Obsolescence from the back way. We are going to select an old freighter from the Boneyard. SE’s technicians will work overnight to outfit it for a journey to Mars. The ship will not be what it seems. You will be its passengers. Your companion will be Steve Cliff. Since you are Starmen, you will not be under his authority. Nevertheless, I ask you to follow his directions for reasons that will become clear. The success of your mission depends on it.”

“Sir?” Mark spoke up. Richard glanced at him briefly and then gave his attention back to the terrain. “Joe and I are honored, of course, that you have selected us for this assignment. But—”

“But why you two? Fresh, newly-graduated, untried Starmen, chosen for such a crisis?”

“Yes sir,” gulped Joe. “We were looking forward to our first assignments as Starmen, but we didn’t expect something like this.” He was anxious.

“Frankly, Joe, one reason you two were selected is because there is no one else we can get in so short a time. Nearly all other Starmen have been dispatched on a variety of assignments—a large contingent to the solar project on Mercury, dozens are scattered throughout the settlements and projects in the Asteroid Belt, and most of the others to the realm of the Outer Planets. However, you are Starmen. What you lack in experience I am

confident you can make up for in skill, determination, and whatever else it will take. This is, after all, why you were invited to be Starmen in the first place.”

“What about Starmen Crag Collins or Laurel Yoshimoto, sir? They were present at the graduation ceremonies not so long ago.”

“Their leave is over and they have returned to the Venusian project. No, only you Starmen are available. We are going to move fast and decisively, and you and Steve Cliff will be our invasion team.”

“Yes, sir,” chorused the new Starmen. They knew Steve Cliff by reputation. He was an independent adventurer who visited Amundsen City regularly. He was at home in several of the major cultures of the Solar System, and knew the underground of Eagle City quite well. He was a fat man and gave the impression that he thought and moved slowly. It was an image he cultivated deliberately, for it caused his enemies to underestimate vastly his hidden power, skills, and resourcefulness. The boys had never known him to work for Starlight Enterprise. SE had little or no need for undercover work.

“And what is our mission?” added Mark.

“When the President received word of the attack, he knew that Earth did not have the resources to deal with such a threat—at least not quickly. He asked me to provide the resources of the Enterprise to Space Command, and to work with them to address the situation. I met midday with Commander Lewis and his advisors. We believe that, while Mars can’t be taken over by force, if it were sabotaged from the *inside* there might be a chance to stop this threat quickly.

“Space Command will delay the pirates as long as possible, in the hope of preventing them from lifting off of Mars before an invasion team can achieve its goal. They can do it. They are skilled at communications and they have highly-trained negotiators. But getting a team to Mars in a timely fashion would be risky and take too long by conventional means, and it is beyond hope that the pirates can be put off for as long as the



journey would take.

"I suggested that a beat-up cargo freighter be outfitted with a new, experimental antimatter drive now in the final stages of production back in the Research and Development Department. A ship powered by antimatter can reach Mars in four days."

Mark's mind reeled. To Mars in four days! His degree was in Space Engineering. Even at the age of 18 he was an expert in spacecraft design and propulsion. He did a quick mental calculation. Why, given the current positions of Earth and Mars even the fastest ship couldn't cross that void in much under two weeks, unless it used a rate of acceleration that would tax both machinery and humans.

Richard continued without a break. "As you know, in the last century we harnessed fusion for propulsion. This cut down travel time to Mars significantly. But the researchers at Starlight Enterprise confirmed what had long been theorized: that propulsion by antimatter is the only way to achieve practical travel to the outer planets and eventually beyond.

"For the past seven years SE has been working on an engine powered by antimatter. The biggest snag we ran into was antiparticle production: antimatter is notoriously hard to create. The whole idea would be so much—well, moonshine—unless we learned to produce sufficient antimatter in real-time.

"Well, in 2144 Starlight Enterprise found a way to turn solar radiation into antimatter. Four years later we launched a special top-secret satellite in close orbit around the sun that could take the sun's rays and convert them to antimatter. This has been the secondary project of our presence on Mercury. Now that we had a reliable supply of antimatter, SE drew up the plans for a practical antimatter drive, and began to build a prototype. The project has been kept at the top-secret level until we could perfect the system—not only of antiparticle production, but also of the drive that would use it. It is now completed."

Richard paused, but it was clear that he hadn't finished what he was going to say. The gray desolation spread out before them in the lunar night. They were several miles from the closest

human being.

“The invasion team—you two—will be given two assignments: first, to prevent the pirates from lifting off from Mars on a flight to Earth, and second, to sabotage their defense operations. Earth’s entire fleet will lift off with conventional propulsion three days after you land on Mars. You must cripple the pirates’ ability to launch their own fleet within those three days—your success will guarantee that the battle will be fought on Mars. If you do not complete this first part of your assignment, when the pirates detect our fleet, they will quickly lift off from Mars and the battle will occur in space. In such a circumstance, even if we win the battle there is too much opportunity for the pirates to escape. We want them all on the ground! Of course,” Richard added almost nonchalantly, “to complete your assignments you must land on Mars without being detected.”

Richard came to a very slight rise at the end of a huge, gray plain, and brought the moonbus to a stop, the engine still running. The two Starmen were reeling with the burden that had suddenly been laid on them.

“Evil always fails, no matter how powerful it may seem to be or how much damage it can do,” said Richard. “Look to the Collapse for that lesson. Earth will prevail over Captain Troy Putnam. The only question is how and when. There is no doubt of that, but we must minimize the damage he can do. A little light will always overcome even the most stygian darkness. Earth doesn’t have a second try at this; failure to succeed on the first try will be disastrous. You are the ones who will make Captain Putnam’s reign one of the shortest in history.”

Richard put the moonbus in first gear and edged the vehicle over the ridge. Before them lay a great plain, filled with the wreckage of antiquated space ships—officially called the Field of Obsolescence, but usually called the Boneyard. There were several square miles of hulls of various colors, representing more than 150 years of history. Since there was no weather on the Moon, the condition of the oldest ships was little different from

the most recent discard. Many of the ships looked undamaged, but there were also many grotesque wrecks and eerie ruins of spacecraft on the airless plain.

“History,” mused Richard. “Too many of these old ships were discarded only because something newer came along. There is nothing wrong with most of them—some of them are even better than what’s out there now. Sometimes the eager search for what is bright and new leaves behind something that should never have been forgotten. We’re about to prove that lesson to Captain Troy Putnam. Let’s go find your ‘wooden horse’!”

The moonbus rolled forward.

~

A few hours later, it was approaching 4:00 a.m. in Eagle City. David Foster, silent as a shadow, glided from the cover of a waist-high stand of brush and crossed open territory away from the outskirts of the city. Inside, the pirates had declared the equivalent of martial law. Patrols toured the streets throughout the day and night, and the darkest hours of predawn were no exception.

David had used the tunnels to reach the edge of the city unobserved and unsuspected. He had passed into the desert of the crater floor. Near the city on this side, the land was heavily covered with dry, spiny scrub brush, with gaps here and there where nothing grew. The farms were on the opposite side of the city, as far as possible from David’s destination: the largest refinery and supply depot of rocket fuel on Mars. The pirates were still in the early stages of their takeover and there were a few gaps in their vigilance. David was counting on that as he approached the depot.

His goal was located over a mile from the nearest inhabited area. It was the storage facility for several hundred thousand gallons of radioactive tritium, vital for the nuclear fusion process used to propel spacecraft. The refinery was adjacent. Pipelines

ran from enormous tanks to the landing field where spacecraft were refueled. The storage tanks there were much smaller.

Phobos was behind David, moving in its rapid orbit toward the east and casting a long shadow in front of him. He came to the edge of the refinery complex and stood behind a small tree to conceal his shadow. To the right was the supply depot. He could see two men in the largest gateway. Two pipelines, each about three feet in diameter, came from the wall nearest the gateway and extended back across the desert toward the landing field.

David waited several minutes, watching the men as they conversed quietly. His eyes scanned the rest of the complex and saw no signs of life—not even a light in any window. When the two men entered the gateway, David moved quickly toward the depot. For the last fifty yards or so he used the pipelines for a cover, and then hid next to the gateway, the pipelines between him and the entrance to the depot. Hearing nothing, he stood up, rolled over the pipelines, and flattened himself against the wall next to the entrance. After a moment he went in.

The two men were just inside. Their utter surprise showed on their features as both turned toward David and reached for the laser pistols by their sides.

“Hey! What are you—” shouted one. David never stopped his stride. Moving quickly toward both, he punched one powerfully in the solar plexus. A satisfying “whoosh!” came from the man’s mouth as the air was knocked completely out of his lungs, and he flew backwards, skidding across the concrete floor with his legs flailing.

The other had his laser pistol out of its holster and was frantically trying to point it toward David, his eyes and mouth wide open in wild panic. Before he could aim the weapon, David gripped the man’s wrist and pulled toward him, turning the wrist as he did so. The gun dropped to the floor. Still holding the man’s wrist with his left hand, David pulled it down. Then he took the man’s chin in his open right hand, lifted him bodily upward and then slammed him onto his back. He hit the ground hard.

David calmly picked up both weapons. Both men were moaning, badly dazed but still conscious. He went to each one and removed their communicators.

"I am going to destroy this place now," David said. "If you start running, you might beat the shock wave." Both men staggered to their feet and stumbled toward the entrance. "Faster!" shouted David. "Head straight for the city. Turn in any other direction, and I'll drop you with your own weapons!" They went.

When they were a hundred yards away and moving fast, David turned his attention to the depot. He went to the rank of master controls. He made a few adjustments, clipped a few wires, overrode the automatic safety circuits, and disabled all the pressure gauges. He double-checked his work quickly. Satisfied, he pressed the activation button. The alarm system began to shriek through the building, indicating that the entire depot was in imminent danger.

David activated the plant communication system and shouted into it, "Abandon the plant immediately! All hands abandon the plant! She's going to blow!" Then he ran out of the gateway, leaped over the pipelines, and headed into the desert. The alarm was painfully loud. He saw lights coming on in the refinery, and in a moment men poured out of the doors of the facility where they had been sleeping in crew quarters.

He looked at his watch, saw he had about a three minute margin of safety, and went on into the desert. In seconds, the shadows had covered his escape. When he was about half a mile away the depot erupted into flame. The sound of the explosion was louder than he had expected. The ground lit up as if it were the sun-side of Mercury, and a monstrous light filled the sky behind him. He kept going.

Although neither he nor anyone on Earth could possibly know it, Zip had already achieved the invasion team's first assignment. The pirates would need at least a month to acquire enough fuel to enable their fleet to travel to Earth. Zip had now reduced the offensive capabilities of the pirates almost to

nothing. However, they were still able to defend themselves against massive attack quite effectively.

Zip huddled inside a small gully near the edge of the city. The two guards at the depot had reached the night patrols, and several dozen armed men were racing out into the desert. Without waiting too long, Zip entered the tunnel from which he had emerged barely an hour earlier and shut and sealed the camouflaged entrance behind him.

## Chapter 6: Preparing to Launch

THE *SPUD PEELER* was poised on its fins on Starlight Enterprise's launching pad. Having been abandoned on the Moon over a generation earlier, it was a suitable imitation of an old asteroid miner's space jalopy. The design was laughably out of date. No one would ever guess that its propulsion system was the fastest by far that Earth had ever produced.

"There it is," announced Richard Starlight as the moonbus he was driving passed alongside the gantry. His passengers, Starmen Joe Taylor and Mark Seaton, craned their necks more and more as the 'bus plowed down the road. The *Spud Peeler* was about forty years old and looked it.

Richard was taking Mark and Joe to Space Command for a last briefing. The most current information on the layout of Eagle City and its defenses was located there. Their moonbus sped down the access road past the spaceport toward Space Command. The sun was off to the right. Amundsen City, since it was located near the Moon's south pole, always saw the sun on the horizon, though depending on the time it could be at any point on the compass.

"The antimatter drive's been installed," continued Richard. "Took nearly twenty hours to do it. Fueling it's taken all the available antimatter that we had," he observed, "but it will be enough to get you to Mars fast enough. You'll be leaving tomorrow morning at 9:00 a.m."

Fascinated, Joe asked, "Sir, according to the theory I remember from the Academy, it takes very little antimatter to power a ship. Almost nothing compared to liquid fuel. Just how much, or how little, are we talking about?"

Richard laughed. "About five billionths of a gram of antimatter can propel a 400-ton spacecraft to Mars in a few days, with some left over."

"What about the G-forces?"

"Good question, Starman. You'll be glad to know that we've got it figured out. We know that any practical antimatter drive must include an accelerationless component in which every item in the spacecraft is linked to a common frame of reference. That way everything inside the ship will move together. This drive needs a *lot* of energy. Although it takes only five billionths of a gram to propel the ship, it requires a far larger amount to create the accelerationless field. This is as experimental as the antimatter propulsion system, but our early attempts have been encouraging. We have a 100% success rate so far!"

"Great," said Mark, dryly.

"How does the antimatter propulsion system work, sir?" asked Joe.

"I'm sure you know what antimatter is?" queried Richard. "Matter in which the subatomic particles have electric charges opposite to that in normal matter."

"Yes, sir. It's just about nonexistent in the natural state and hard to contain."

"Right. We can keep it only in magnetic bottles, where the antimatter particles are kept out of contact with normal matter. When contact does occur, the particles annihilate each other, and the mass of both is turned into energy. The reaction has the highest energy density possible, and releases charged particles that are directed out the back of the spacecraft. They move very fast—about one third the speed of light. Enormous thrust!"

Richard, Mark, and Joe left their suits in the entry to Space Command. They were waved without delay or ceremony into the briefing room. Commander Lewis was already present, as were Steve Cliff, Jack, and Jill. A few other officials were seated at the conference table, obviously uncomfortable and resentful of Steve's presence.

"Well, hi there, Rick! Glad to see you! Can't wait to get going on this little adventure," Steve boomed. "This Putnam may think he's as smart as a tree full of owls, but we're gonna send 'im spinning faster'n an electron round a nucleus." Steve's hands were locked behind his head and his legs were stretched out in front of him. A few papers in a folder lay on his trademark paunch.

The officials with Commander Lewis stiffened visibly, their mouths tightening with disapproval. Steve was known to be unceremonious, but he was taking it to an extreme that verged on insolence. He was clearly taking joyful advantage of the situation.

"Never thought I'd see the day when I'd be on the government's payroll!" The folder on his belly moved up and down as he spoke.

"Hello, Steve," smiled Richard Starlight. "Commander Lewis, gentlemen," he added with a nod to each. Commander Lewis was a bit more flexible than his colleagues. There was a humorous glint in his eye as he stood and shook hands with Richard and the Starmen.

Richard took charge of the meeting. "Our time is short. It's been nearly twenty-four hours since we met here last night. The crew at SE worked throughout the rest of the night and all day. The *Spud Peeler* has been prepared for launch, and the crew is ready. Jack and Jill will fill out their number."

"Why are the Titanians going?" questioned a uniformed man on Commander Lewis' right. "We need to move quickly on this, and they could well slow the team down."

"Besides," added another, "there are no Titanians on Mars. Their presence with an Earthman will be a tip-off that he's not a



citizen of Eagle City.”

“They volunteered,” spoke up Joe, “and we need them. We have no intention of being seen in Eagle City. Since they’re very small, they can easily crawl through air vents and passageways and go about unnoticed. This can be a big help when it comes time to sabotage the main base. They can get to places that earthlings can’t.”

Jack added, “Also, we know computers and wiring very well. We also help defend Mars and Earth. When we help you, we also help Titan.” He and Jill wore small amplification systems, with microphones about the size of a grain of rice. Their voices were very light and could not carry much above a whisper without electronic assistance.

Richard moved on. “We’ve come to orient the team to the intricacies of Eagle City,” he stated. “Let’s see what you can give us in the next three hours or so.”

Commander Lewis nodded to a technician, who gave his attention to a small keyboard in front of him. He pressed a button, and one wall brightened up into a full screen. The technician loaded scene after scene onto the wall-sized screen, detailing the power generation and control system, the atmosphere maintenance system, and pointing out the locations of key structures. For the next three hours the members of the invasion team viewed charts of the electrical systems, maps of the city streets, and construction prints of the various buildings.

All five of the team members had some knowledge of what was shown them, but there were also many secrets revealed that surprised them all, even Steve Cliff. Passages, closets, “panic” buttons, emergency shut-down switches, and backup systems were all pointed out.

Since no one knew precisely what the situation on Mars was, the personnel at Space Command suggested several possibilities for breaking the hold the pirates had on the city. What made Eagle City vulnerable to the pirates’ attack also made it vulnerable to sabotage by the invasion team.

At one point the technician looked to Commander Lewis.

"I'll need your access for this next file, sir."

Commander Lewis rose and placed his thumb momentarily on a sensitive plate on the keyboard, and then held his right eye in front of the plate so it could scan his retinal pattern. Instantly a map appeared on the screen showing the tunnels underneath Eagle City.

"We believe it most likely that Starman David Foster has taken refuge somewhere in the tunnel system," said Richard. "At least he was there twenty-four hours ago when his message came through. We haven't heard anything from him since then. When you get into Eagle City the tunnel system will be your best bet for locating him. But remember that finding him is not your first assignment."

"This is really an eye-opener!" said Steve, frankly admiring the display on the wall. "You've got far more tunnels down there than I knew about!" It was a real compliment to Space Command. Steve was very knowledgeable about the underworld of Mars, and when he was operating in Eagle City years earlier he knew how to get around without being seen by anyone.

"Thank you, Mr. Cliff," said Commander Lewis, "but our knowledge will be of minimal value without your experience."

"I expect to enjoy it. I'll just be Jack Heflin, poor hermit of an asteroid miner, comin' in from the Belt," Steve grinned back. "I just get the boys and the little folk into Martian airspace and hope to be able to approach closely enough to allow them to parachute quietly to the beautiful desert! If the pirates let me land, I'll do my work from Eagle City; if not, I'll set the automatic pilot on the little *Spud Peeler* so it'll find its own way to a rendezvous with a Starlight ship, and then parachute with my partners here!"

Joe directed a question to the head of Starlight Enterprise. "Have there been any recent improvements in the design of parachutes for use on Mars, sir? I know there are 'chutes made especially for Mars' thin atmosphere, but I don't remember that anybody's ever had to use one before. There's not much to hold it up."

Mark hadn't thought of that. Parachutes were still standard equipment in air and spacecraft, but were considered archaic and were rarely used. He lifted his eyebrows and turned to Richard.

"The parachute adapted for thin atmospheres should work fine," answered Richard. "It has a much larger canopy than a parachute used on Earth, deploys much faster, and weighs far less. Landing will still be harder than usual, but possible."

Mark was only moderately comforted by Richard's assurance.

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After the restless night, the Starmen, the Titanians, and Steve Cliff were suiting up in the last preparation before lifting off in the *Spud Peeler*. Both Mark and Joe had a computer disk that contained the details of the entire Martian defense system, noted its flaws, and showed several ways in which the system could be brought down. This was the result of the previous night's meeting at Space Command.

Starlight Enterprise's rocket engineers, called "ioneers" from the early days of ion drive spacecraft, had installed the new antimatter engine in the freighter, disguising it to look like an old, long-used engine.

The five invasion team members entered the *Spud Peeler* and prepared for liftoff.

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The flat voice of Ban Zou Men went on inexorably, permitting no response other than acquiescence.

"One man has brought this disaster upon us, Mr. Putnam. Only *one man*, and that one a raw Starman not out of his teens yet. Because of *one man* you have still not yet found, you are telling me that you do not have enough fuel to launch the attack I spent years planning."

Troy Putnam noticed that his mouth was dry, as if he hadn't had a drink of water for several hours.

"There is fuel at my base in the western mountains, Mr.

Putnam, and there is fuel in other settlements in the northern hemisphere. Mars Base must have plentiful reserves.”

“Yes sir,” replied Troy Putnam in a decidedly unhappy tone of voice, “but we are unable to appropriate the fuel at Mars Base.”

“Why not, Mr. Putnam? Are you not in control of Mars?”

Captain Putnam felt his throat constrict with acute discomfort.

“We are fully able to prevent any of the Starlight ships from lifting off from the planet, and we have blocked all their interplanetary communications, sir, but we are unable to take over the base by force.” There was a pregnant pause while his superior waited. “The personnel at Mars Base discovered those among them who were loyal to us much more quickly than we anticipated. We have neutralized Mars Base, but it is well defended. We cannot overwhelm it without dangerously diminishing our forces elsewhere.”

“I see.” Ban Zou Men’s tone was thick with displeasure. “And the bases of Nolan Mining Enterprise? There is an ample supply of fuel in their manufacturing plants. Take it.”

“We have taken more than half of it, sir. There is sporadic resistance among the NME personnel, but we expect to break it down completely in short order. Their supplies, however, are not enough to power our entire fleet for a venture to Earth.”

“You have received the supplies from our alien allies?”

“Of course—but fuel for our warships was not a part of the shipment.”

“Don’t insult my intelligence, Putnam!” Ban Zou Men’s words smoked like acid. “I *know* they didn’t ship any fuel! They expected that you would have all you need!”

“The fuel depot in Eagle Crater has been contaminated by tritium. I have ordered the clean-up crew to keep busy round-the-clock, and I am ordering all the refineries in the northern hemisphere to work on the same schedule, sir. There will be no problem in providing sufficient fuel supply for our purpose in about five weeks. That delay, regrettable as it is, will not permit

the forces of Earth to mount any kind of defense. And even with our fleet grounded, I still have the defense of Mars at my command. With our own weapons and those the allies have supplied, we can defend Mars very well!”

“I didn’t plan this so that you could defend yourself!” roared Ban Zou Men. “*We* are not the defenders! I am grievously displeased, Putnam! Let us both hope that you will have a more encouraging report next time!”

## Chapter 7: Shot Down!

AS THE *SPUD PEELER* zipped toward Mars, Mark sat silently next to Steve and watched the stars, galaxies, and nebulae, the treasures of the cosmic darkness, on display through the crystal window. Logically, he understood quite well why people usually called this “space,” for the void through which he sailed so peacefully called man to measure his dream of travel in it by infinity.

But from childhood Mark had thought of the medium through which he traveled from one planet to another as a vast box of secrets that unfolded their splendor before him. He considered it a reward for his daring to enter what most everyone else thought was a vacuum.

He remembered vividly his first childhood experience in space, when his father had taken him from the Earth to the Moon. The memory of a hauntingly beautiful call that seemed to come from the far shore of a vast ocean filled his heart again. He was gripped by a powerful sense of longing for something that was beyond him, something he couldn’t understand or imagine.

In his mind’s eye, he saw swirling galaxies and brilliant star-froth, like illumined cosmic dust. *Somewhere out there*, he thought, *there is a Light that is light’s living spring, through the Pillars of Creation. It is the source of that whispered call. Someday I will find it.*

To Mark’s surprise, Steve Cliff understood completely. There

was always more to Steve than one would think. Mark was beginning to think that this would be true even if he were to come to know Steve for years. Steve had related a number of his adventures in the Asteroid Belt, and the remarkable beauty he had found there. Of course, he said it in his own way.

“The Belt has some of the most bee-yootiful sights in the entire Solar System. Why, I have found some crystalline caves with sides so sheer that it’s like being inside a rainbow. And there’s one place I’ll have to take you boys someday, where the quartz deposits are so old and so cold that they can shatter if you hit them wrong with your pick. And they are placed so that the light scatters like a laser in a room full of fun house mirrors...”

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Take-off had gone smoothly, using the old cargo ship’s ion drive. At the right distance from the Moon Steve had engaged the antimatter drive without problem, and under the accelerationless drive the ship sped toward Mars. The five were traveling faster than anyone from Earth had ever done before.

The Starmen were in their element now. Their first assignment! With his training in Space Engineering, Mark kept an eye on the configurations for the antimatter drive.

Joe was more interested in the mechanics of the drive than the theory behind it. The magnetic bottle that contained the antimatter fascinated him. When he had time, he brewed a pot of tea and opened up the files on antimatter. While he sipped sweet, steaming Darjeeling tea, he caught up on the history of Mars and its colonization.

The antimatter drive did not take up much room and was concealed in the bay in which the ion drive was secured. The controls were in a pod that slid out from under the instrument panel. When the antimatter drive was not being used, the pod dropped into a space created for it and a plate covered it. The hiding places would not fool a mechanic for long, but the casual observer would never suspect that the ship was not as it

appeared.

Steve had not only traveled throughout most of inhabited space but had lived in much of it—at least briefly. He had been an asteroid miner and knew the chief settlements, as well as a few hiding places. And Eagle City had few secrets from him. Since he knew the territory, he was the pilot for the *Spud Peeler*. This also freed Mark and Joe to study the information on the computer disks they had brought.

Jack and Jill studied the information on the disks as well, concentrating on the computer systems. Titanians didn't have much sense of history and were only beginning to grasp the extent of the Solar System. The citizens of Saturn's moon were more interested in mechanics and electronics than abstract fields such as music, history, and philosophy.

"When we get into Martian airspace," Steve reminded them all, "we'll be comin' out o' the sun about twenty miles up. Then I'll glide in a little lower than usual, but not so much out o' the ordinary that I'll draw attention to myself. I'll just be a hermit-like space prospector coming in to land at Eagle City after several months of prospecting among the asteroids. Invasion? I don't know nothin' about it. Don't care much, neither. Then after I make my innocent little inquiry, we'll drop out about thirty miles up north o' the crater, and free fall several miles before opening up our 'chutes."

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"The antimatter drive worked perfectly!!" Joe exulted. "MAN, can this thing *move*! We were really burnin' daylight on the way!"

Mark didn't turn from his scanning of the sector directly in front of the cargo ship. "So far," he responded matter-of-factly. "The hard part is coming up. We've got to convince the pirates we're just one asteroid miner hustling in to Mars for a good time. As far as they're supposed to figure, we don't know who's in charge down there and we don't care, as long as they let Jack Heflin land and get out to the happy side of town."

“Still,” Joe persisted, “we’ve probably moved faster than anyone else in history—Earth to Mars in four days—man oh man!”

“Stow it, you two—if you please,” pleaded Steve. “We’ll be in normal contact range in a second and I’ve gotta be ready to make my case.”

The *Spud Peeler* had dropped its speed to normal as soon as it had changed course to make it appear as if it had come from the Asteroid Belt. Its appearance, inside and out, would not arouse suspicion in anyone’s mind that it was anything but a forty-year old cargo ship. An easy-going, middle-aged asteroid miner might have bought it second-hand or maybe even third-hand. It was common for such miners, when they had found enough ore, to come in to Ceres or (with a real lucky find) even Mars for a joy jaunt.

If the pirates allowed Steve to land, then after the Starmen dropped into the skies of Mars with Jack and Jill for their part of the mission, Steve would be on his own to deal with the pirates. He didn’t expect it to be too much of a challenge for him. He had worn his asteroid miner’s clothes during the entire four days since they had lifted off from the Moon. He’d slept in them and hadn’t bathed. He was ready to play the part.

“Get ready,” he said. Joe and Mark were dressed in the dusty magenta camouflage fatigues suitable for the Martian wilderness. Air tanks were in place and survival packs with two days’ supply of food and water were ready. They strapped on their glider ’chutes. Steve’s suit was a dark, moss green, marked and scraped as expected for an asteroid miner.

The Titanians entered the shoulder packs that the Starmen had added to their space suits. These packs were designed to provide them with their own environment, and could be detached and used as a small vehicle. Normally it attached like a backpack, riding high so the Titanians could see over their host’s shoulder.

The red planet filled the bottom two-thirds of the window. The *Spud Peeler* was approaching Eagle Crater, the site of Eagle



City, from the northwest. The sun was behind it. The upper right portion of the planet was in night's shadow, discernible because there were no stars visible in that part of the sky. Beyond Mars, filling the upper expanse of the window, the field of stars spread through the purity of the cosmos.

"Keep quiet, now. I'm opening communications." In spite of the banter of the previous moment, the boys were nervous. Hearts beat fast, palms were clammy, expressions were tense. Only Steve seemed calm. He flipped a switch.

"*Spud Peeler* calling Eagle City, Jack Heflin aboard. Coming in from the Belt, seeking permission to land."

"Permission refused!" came the near-shouted reply. "No landings permitted. Leave Martian airspace at once!"

"What do you mean, 'Permission refused!'?" shouted Steve. "I haven't been on Mars for more 'n two years, and I'm comin' in with a fistful o' solars to spend!"

"Permission refused!" repeated the controller firmly. "Leave Martian airspace at once!"

"What's the problem down there? I've been—"

"Leave Martian airspace at once or get shot down. Either way, you're not landing at Eagle City!"

"All right, all right! I'm on my way," Steve snarled back, and cut off communications. "Better get ready boys. I'll just keep cruisin' this ship along quietly until we get to the right place and then we'll jump!"

Two minutes passed, and then a smoky bar appeared in the cabin, filling the space between the seats from floor to ceiling. The metal sizzled, and the bar disappeared.

"LET'S GO, BOYS! THEY MEAN BUSINESS! We're a lot higher up'n I'd hoped for! We're gonna have to spacedive!" Joe and Mark didn't have to ask what was going on—they knew a medium weight laser beam when they saw it. The hiss of rapidly escaping air filled the cabin with a loud squeal. A second beam pierced the seat where Steve had been sitting, but he was already up, throwing on his helmet with his right hand and grabbing a glider 'chute with his left. Melting metal dripped from the

ceiling to the floor. The three of them put on their helmets, raced to the cargo port, threw open both doors, and leaped into space about one second apart.

The Starmen had said nothing after Steve's urgent command to jump for it. Things were not going according to plan, but they had made an instant decision and acted on it. Jack and Jill were in place in their shoulder packs.

*I'm actually a little calmer now*, thought Joe. He saw Mark spread out below him and a little to his left. He hadn't been to Eagle City since he was a child, and never dreamed he would return this way. *Wonder if I actually will return*, he thought, with a mental shrug.

They had had to make the jump before they'd entered the atmosphere. It would be a long, long dive. Directly below and in every direction as far as he could see was a grand sweep of featureless, reddish-brown landscape, with a few shadows giving evidence of hills and dunes. After a few minutes, he began to feel a little resistance and knew he'd entered the top layer of the Martian atmosphere.

With his arms and legs flung out to get the maximum drag from the thin air, Joe turned his head to see if he could locate the *Spud Peeler*, but it was too far away. Suddenly there was a fierce fireball, blinding him for a moment. *Must have hit the magnetic pod where the antimatter was stored*, he thought. *Good thing we almost used it up getting here, or a really big blooey would have tipped the pirates off that something was unusual about that old cargo ship!*

"Just made it, didn't we, Joe boy?" Steve's voice came gently through the speakers. Out of the corner of his eye Joe saw Steve above him, eyes fixed on the red soil below. "Get ready to deploy your 'chutes, men. Ground's coming up."

Joe looked down. The terrain now showed some detail. He could see cracks, which he knew were really canyons far below.

*Glad we've got our air tanks*, he added to himself. *This air is thin! 'Barely enough to hold a 'chute,' they told us—and they didn't expect us to be jumping from so high! Wonder what*

*terminal velocity is on Mars. The landing won't be too much fun.*

"Opening up now," Mark announced. Below him and to the left Joe saw Mark's pink and brown glider 'chute pop open and begin to deploy. Joe pulled his own ripcord. Deployment was slow, but it was happening. His 'chute deployed completely and he felt a tug as his speed dropped suddenly.

*Not enough!* he thought, and then added out loud, "We're coming in too fast! The air can't hold us!" No one responded, but both new Starmen felt their adrenaline surge as they saw the Martian sand approach much too quickly for comfort.



*"We're coming in too fast! The air can't hold us!"*

Joe saw Mark pull on his shroud lines and watched the canopy turn. He looked where Mark was going, and saw where the sand fell off like a wave, the side of an enormous sand dune. Mark was gliding toward that; Joe followed him in. He saw Mark slam into the side of the dune and roll over and over, rapidly, out of control. He had no time to watch further, for it was his turn to greet Mars.

*Choooff!* went his boots as he sheered into the side of the dune. He fell hard on his face in the sand and began to roll. The breath was knocked out of him. He sucked in hard, trying to get

some air into his lungs, hoping his air hose wouldn't get dislodged. At last he stopped tumbling and lay still. Sand slid down over him heavily, and a cloud of brown dust rose thickly and then slowly blew away.

"Oooh!" he groaned. He wanted to lie there for a long time, but he had to look for his friends. "Are you okay, Jill?"

"Okay," said the tiny voice. "We Titanians are tough."

"Don't I know it," moaned Joe. "Wish I were as tough." He raised his head and turned to look. At the bottom of the dune about fifty yards away, Mark was lying facedown. He saw no sign of Steve. Joe struggled to get to his feet, and then stumbled over to where Mark lay, sand flying as he hastened.

"Mark!" he cried. "Jack? Is Mark okay?"

"Cannot tell, Joe. He not move. Eyes closed, but breathing." Joe knelt by the spread-eagled shape, and saw faint movement in the hands of his friend.

"Is he okay?" came Steve's voice over the radio. Joe looked over his left shoulder and saw Steve coming to them, walking quickly. Steve appeared to be fine.

"I'm okay," sighed Mark. "I just want to lie here for a moment."

A few minutes later, the three Earthmen stood in the red sand at the bottom of the dune, the dust brushed from their clothing as best they could manage.

"Well...at least we didn't lose any equipment," said Steve.

"That's putting a good face on it, Steve," responded Mark, "considering we only have food and water for two days, and don't know where we are!"

"Don't forget we also have six air tanks for the three of us, too, Mark," added Joe. "Unless we learn to breathe like Sherpas, we'll last about a day and a half."

Steve said, "I have a pretty good idea where we are—*about* where we are, that is. Judging from where we were when we got shot down and how fast we were movin', we're at least 350 miles northwest of Crater 91."

"This is not good," said Mark. "We can never reach Eagle

City on time to keep the pirates' ships from detecting the Earth fleet and lifting off to attack it! We've already failed!"

~

It was night on Mars again. Zip was on the second floor of a warehouse in the side of the city farthest from the spaceport. Nearby were several bars, gambling houses, and run-down theaters. They were crowded, even more than usual, since no one was allowed to leave Mars and the miners and other travelers were getting bored and restless. The patrols in this section of the city were frequent, well armed, and only covered the streets in groups of at least a half dozen men.

A small gathering of friends, three or four celebrants, stumbled out of the *Lizard's Watering Hole*, one of the most popular of the entertainment centers on the west side of Eagle City. Within seconds, two patrols confronted them in the streets, weapons drawn.

"Go back inside!" ordered one of the men in the street. He was a hulk of a man and sported a crew cut. "If you've had your fun for the night, go upstairs and sleep it off. Nobody's allowed on the streets at night!"

An old man, one of those who had come from the *Watering Hole*, spoke up. "Aww, Jimmy, just let me go back to my ship for a minute. I need to feed my koalangs. They ain't had a thing to eat for a couple days."

"Go on, get inside!" The big man emphasized his words with a push. The old man surged back into his friends' arms. "Aww, Jimmy. That ain't no way to make friends," whined the old man, as his friends helped him back inside.

By the end of the incident, Zip was in the alley next to the *Watering Hole*. A street lamp at the head of the street cast its halo over the entrance, but the darkness deepened as the alley extended away from the street. Zip stood silent and unmoving. He made even his mind blend into the overflowing refuse bins and half-filled storage boxes that were scattered in the alley.

Pipes and ladders ascended the sides of buildings on both sides of the alleyway, and the shadows cast grotesque patterns until they faded into the dark grays of the night.

The crew-cut man's patrol moved on. Zip immediately moved to the end of the alley, just out of the circle where the street lamp illuminated the walkway. The patrol turned a corner. Zip slipped after them, unable to avoid the yellow glow of the light.

"Hey! You! Come here!" A voice shouted at him from the end of the street opposite to that where Crew Cut had gone. Zip whirled and saw another patrol just turning the corner into the lights in front of the *Lizard's Watering Hole*. He snorted with disgust at himself, and turned back into the alley and ran. A laser beam pursued him and scarred the wall of the warehouse, but Zip was already well into the dimness. He could hear running feet and several shouts.

He didn't have a laser shield with him, since it was not standard equipment and he had had no expectation of being shot at while on this assignment on Mars. Laser shields were very thin, lightweight bodywear that could absorb and diffuse a laser beam.

He jumped to a ladder that went up along all three stories to the top of the warehouse. The patrol reached the entrance to the alley. The leader saw Zip's dark bulk climbing quickly up the ladder. He fired a second beam as the bulk disappeared. Zip felt searing pain across his back as he hurled himself into the open window of the warehouse's second story from which he had watched Crew Cut bully the old man. His adrenaline kept him going.

"Time enough later to let the pain slow me down," he told himself. He sped through the dark room. He could already hear someone on the ladder, and there were others at the front door.

Zip jumped onto the freight elevator that he had used to get to the second story and dropped rapidly into the basement. The front door crashed open as he hit the bottom.

"Get the lights on!" someone shouted. Glancing over his

shoulder, Zip could see the beams of several flashlights moving rapidly along hallways, coming in his direction. He opened a panel that admitted him to a narrow tunnel. It was braced in places with beams that looked like wood but was probably some artificial substance. He shut it quickly but silently behind him and sealed it. Then he turned toward the long brick stairway that led away from the panel into the depths of the crater floor under Eagle City.

*I can't go out much more, maybe not at all—not even at night,* David thought. *The pirates have too much at stake now and are just too vigilant for me to risk it.*

His back began to throb. The stairs came to an end. There were a few timbers holding up the walls of the tunnel at this point, but the smell of moist earth and a strong feeling of being enclosed assaulted his senses. He stumbled on.

## Chapter 8: Lost in the Desert

CHECKING a map that Space Command had provided, Mark determined that the invasion team had come down in the Coloe Palus area of the Martian landscape. It was a dark and depressed area, with nearly 300 miles of sandy, desert territory to travel through before they could get to the sea immediately west of Eagle Crater. A mountainous terrain, heavily wrinkled with passes and escarpments, lay just to the north of the area through which they would have to travel. The sea west of their goal was actually a long and wide arm of the great ocean that straddled the equator. It was at least 60 miles wide at the point where it was closest to Eagle City.

As Mark was consulting the map, Joe was taking atmospheric readings. The dark blue of the atmosphere, even at high noon, was found only where the land met the sky. About thirty degrees above the horizon the blue darkened into deep purple, and directly overhead was almost like the black of space.

“Well, I’m only a little surprised,” Joe announced when he

had finished his measurements. "The oxygen content here is not as thin as I expected, not as thin as it is at most other places on this planet. But it is much too thin to sustain human life—only about 10-15% that of normal air."

"Yeah, well, even if there were plenty of oxygen, we'd still need our suits. The temperature is just about freezing," added Mark.

"Five degrees below freezing, to be exact," said Joe, cheerlessly. "I'd have expected it to be at least a little warmer, since this is the Martian summer."

"We're out in the badlands at a bad time, we know that," put in Steve. "We're bad off. This place is dryer'n dust in a mummy's pocket. But let's not stand around here worryin' about it. Let's get moving."

Joe cast his eye over Steve's corpulence. "Think you'll be able to keep up, Steve?"

"If you get lost, Joe, just follow my footprints. You'll be okay."

"What direction, Mark?" asked Joe. He was scanning the horizon to the east. It looked the same everywhere he turned his eyes. Bleak, reddish brown dust, scattered rocks and small boulders, a few scraggly plants that made cacti look like a rain forest.

"According to the map, the nearest supply station is about forty miles from here, roughly due east, maybe a little south of east," Mark said. The supply stations were scattered widely on Mars' surface, but most were in the vicinity of Eagle Crater. They contained food, water, oxygen tanks, clothing, electronic equipment, and other supplies a traveler may need.

"The directional beacons only have a range of about twenty miles," said Joe. "We'll have to guess at the direction until we come into range." Each supply station had a solar-powered directional beacon to make them easy to find.

Mark added, "The station is not on a direct line to Eagle Crater, but it's our only hope of survival. Once we reach it, we'll have a much better chance to do what we need to do."



“Shouldn’t we risk contacting Space Command?” asked Joe. “Obviously no one knows that we’re not in Eagle City. It’s not possible for us to get there in three days, much less sabotage the pirates’ launching capability in that time. If we haven’t achieved that assignment by the time Earth’s forces are prepared to launch, they’ll be at a huge disadvantage, and it’ll be our fault!”

“It’ll be a risk,” assessed Mark, after the slightest hesitation. “A big risk! Putnam announced that he would be blocking all attempts to communicate from Mars. If he’s been able to do that even ’way out here, we couldn’t get through and we’d only cut our own throats by revealing our location. The pirates must be watching for any sign of interplanetary communication. They don’t want Mr. Jones who runs the grocery store in Eagle City to be reporting the pirates’ every move to his brother-in-law in Cleveland.”

“But Mark, the crew of several hundred ships is at risk!”

Mark pressed his lips together. “I know, Joe. Of course we have to risk it. But we’d better have a plan first. Suppose we devise our message as if it’s from ‘Jack Heflin’ trying to reach his friends to say he’s been shot down by some idiots in Eagle City. That’ll keep our cover for the pirates but also definitely tell Space Command that we’ve got a problem.”

“Sounds great!”

“Let’s do it that way, then. Steve, you’ve gotta make the call.”

“Okay with me, boyos,” said their companion. “It’s a good plan. But they might send out a search ship. You two’d better be ready to hide real well in case we get a surprise visit. Lucky you got those camouflaged suits.”

“No luck about it, Steve,” said Mark. “That was part of the plan.”

Steve prepared his message and then made the attempt, but the signal did not escape the atmosphere. Steve lifted his eyebrows.

“Well, well, well! To tell you the truth, I’m surprised! I thought sure that nobody’d be able to box in a signal this far out in the barren lands!” He looked up. “I got to admit I’m a little impressed with this Troy Putnam. His resources are more

formidable that I'd ever have guessed. There's more to him than we thought!"

"We'd better get moving," said Mark soberly. "I don't know if the pirates will care about that signal or not, or how long it'll take 'em to get a patrol ship out here if they decide to respond in some way. I think you, Steve, should stay about a mile in front of us. If you see a ship, look obvious—maybe even wave for help, and we'll hide."

"I'm to draw their attention in the hope they'll overlook you two, eh? Well, an unwelcome assignment but there's no other way under these circumstances."

"You're a good fellow, Steve," said Joe. "Think of it this way: I'll definitely have to follow in your footprints now."

"If nothing happens by nightfall, we can come together again," said Mark. "We'll have to communicate with each other on these 'line-of-sight' communicators we're using. Their range isn't far, but no one can eavesdrop on us. Other than that, we've got to be as good as silent. The hardest part of the journey is right now. After we reach the first supply station we'll be okay."

Joe agonized, "No one knows that we've been shot down—not Zip, who doesn't know we're coming, and not our forces who can't see us! Even if we cross the desert successfully in a week or so, the time it will take us to get to Eagle City is still hopelessly too long!"

"I know, Joe," sympathized Steve. "Time and circumstances are against us. But we can't do anything but go on. Success. That's gotta be our only goal."

"We'll get to Eagle City all right," contributed Mark.

They set out at once. Steve took the lead, setting his direction by the sun. Since Mars had no magnetic field, compasses were useless. "A little south of east," he repeated. "We should be able to make it by late afternoon tomorrow."

"We'll make it," said Joe. "Number one priority has got to be crippling the pirates. And to do that we have to survive. We'll make it!"

"That's my boy," said Steve.

~

The wind was at their backs, light but unrelenting. The terrain undulated slightly before them, but for the most part the land was a simple desert plain of light dust and small rocks, extending as far as one could see. The Starmen could barely see the figure of Steve, plodding on and on a mile in front of them, holding to the direction that Mark had set.

The sand dunes where they had landed had marked the western edge of an expanse of gasping, hard-packed, solid sand almost as hard as stone. The dunes were far behind them now, but the horizon in front did not change in appearance as the invasion team moved ahead. Placing one foot in front of another became a mechanical, eventually mind-sapping, repetitive action. Nothing seemed to change. Their pedometers showed that they were putting miles behind them, but if not for these measurements the five travelers would have felt that they were not making progress.

The sun gradually moved behind the hikers and their shadows stretched longer and longer in front of them. There had been no sign of a search ship. Dusk was approaching. Joe knew the fierce cold would intensify when the sun dropped below the western horizon. A slight frost was already beginning to form on the ground.

"Steve," called Mark, "hold up for us. Looks as if no one's coming after us. If a search ship were going to come our way, it would've been here by now." Steve sat down wearily and waited for the Starmen to catch up.

"We'd better stop for the night," suggested Steve when they were together again. "When it's dark, it'll be hard to travel."

"Why is that?" asked Mark. "It's not like we're going to lose our way or bump into anything. We can check our direction by the stars."

"I'd like to keep going, too," added Joe. "Let's push on for at least a couple more hours, maybe more."

"To keep going, we'll need to use lights," said Steve. "In this

country even dim lights can be seen a long way off; just in case anyone comes out to search for us we'd be easy to spot. But Phobos and maybe even Deimos should be up soon, and they oughta give us some light to travel by."

"Hmmm. Right," mused Mark. "What's moonlight like on Mars, Steve? I've read about it, but have never seen it myself."

"Not like a full moon on Earth, my boy. As you know, Phobos orbits close to the surface, but it's hardly bigger than a pebble. It rises in the west and reaches the eastern horizon in a little more'n five and a half hours. It looks like a shiny little potato with a kaleidoscope of lit-up designs on it. If the time is right, you can actually see it rise twice in one night! It circles this orb we're set down on in eleven hours or a bit more.

"Deimos, now, is a different story. It's like a bright star, and takes more than five days just to get around Mars once. It rises in the east and appears to run in the opposite direction from Phobos. Both moons revolve in the same direction, though—it's just the way the planet rotates that makes it appear differently. It's complicated! But don't worry! There'll be enough illumination to keep us from stumbling into any gopher holes, if you're determined to keep going."

"Gophers?" asked Mark quickly; and then the light dawned. "Oh, yes. Gophers," he continued with a straight face. "I remember reading about the Martian gophers back in the Academy. It was Dr. Dukas' class, I believe. Martian gophers are the descendants of Australian kangaroos after they were crossed with the koalas, and brought to Mars with the settlers before the Collapse. They wanted an animal that would be both cuddly and useful for carrying supplies. Vital for the miners who brought their children. Only problem was that the thin atmosphere and lower gravity of Mars combined to keep the species small. It was classified as *Aresius gopherius diminutives*, if I remember correctly. Could be wrong, though; I barely passed Dr. Dukas' class."

"Yeah? Or maybe you were absent that day and you're making all this up," replied Joe, stepping forward with a lively

gait. Where the frosty plain met the sky, a soft silver glow was emerging, like a firefly caught in a cobweb. Phobos was about to appear over the horizon behind them.

Two hours later, the five of them settled down for the night. Steve put up the tent. It was made of a clear material, similar to the substance used for making the close-fitting spacesuits they were wearing. The fabric was virtually impossible to puncture by any normal means.

The tent came with a small canister of recyclable air, designed for use by two full-grown human beings for about three nights. It would be difficult to support three at a time, but there was no choice. Once inside the tent, the humans could remove their helmets and the Titanians could emerge from the shoulder packs.

A simple cold meal from the rations was at best nourishing, but could hardly be described as satisfying. With the fall of deep night, the wind ceased. Conversation was minimal, as everyone was tired, quarters were cramped, and oxygen was at a premium.

~

In the morning, they went on. The desiccated land extended forward, and still there was no break in the horizon, no feature to relieve the desolate flatness. There was no water. As the sun warmed the land the wind picked up again, blowing with increasing fierceness from their backs. Dust blew before them, almost exactly in the same direction they were walking. Though no one spoke of it, the ordeal was beginning to drain them. Jokes became less and less frequent, until even normal conversation lagged. Time between words became measured in hours.

Past noon, Mark stopped. He checked his directional finder. "Still nothing," he announced wearily. It was becoming difficult to talk, since the air was beginning to feel a little stale. "I'm sure we're going in the right direction, or about the right direction, but we ought to have locked onto the supply station by now."

"Didn't you say yesterday that it would take us at least until this afternoon?" asked Joe.

“Yeah. I guess so. I was just hoping.”

The Starmen were only hinting at their growing anxieties. The food was running low and the water had been recycled several times and was beginning to taste bad. Oxygen was their most urgent need, and it would pass the critical mark late the following day.

Even Steve was quiet. The trek was taking its toll even on his usually irrepressible sense of humor. Only Jack and Jill showed no signs of discomfort.

The company moved forward. Once again, the shadows lengthened and darkness followed the sun. Once again, they kept moving. Phobos was just setting over the horizon before them. In the same part of the sky, Deimos shone with remote beauty, like the star of the evening.

Mark kept them going a little longer than the night before. No one complained, knowing the importance of finding the supply station before their air ran out. When they finally stopped for the night, he checked the directional finder, again without result. Wordlessly, Steve set up the tent.

After they had lain down for the night, Joe looked up through the clear fabric of the tent. The daytime breeze was barely discernible, and the blaze of the night sky was flung above them with a profound splendor. Mark always found deep satisfaction in such beauty. Quietly, he recited,

Evening wind, from over the blue-black  
 darkness of the sea,  
 Your sighs are as a spoken word to me,  
 Wafted in quietness,  
     as on a flight of angel wings,  
 Soft as a word whispered,  
     caressingly, in the night,  
 A word from my Beloved brought by you,  
     O evening wind.  
 “Come home,” I hear you whisper.  
 “Your Beloved calls you home.”

Joe sat up and rested on one elbow. “What was that, Mark? It was beautiful!”

“It’s the first verse of a poem I remember from my childhood. It’s called ‘Come Home’. My mother used to recite it to me over and over again at bedtime when I was small. I used to look out my bedroom window when she was saying it, and I could see the stars. It made me want to be out among them. The second verse is even better.” Lying back and looking up at the constellations, he continued:

Evening wind, my soul has been waiting  
 long for this great flight.  
 Beyond the twinkling circlet of the night,  
 Between portals of time and space,  
 I go to Him.  
 Above the swirling breakers  
 of the galaxies,  
 Crested with spume of cosmic dust,  
 There, at the margin of created space,  
 my Beloved waits for me.  
 I see His face, and I am home at last<sup>1</sup>.

No one said anything after that. A bit more content, they went to sleep.

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The morning of their third day on the red planet dawned, beautiful but piercingly cold. The wind came up again from the west, at their backs. As they moved into the sunrise, Mark checked the directional finder every few minutes.

On the third try of the day, he got a fix on the supply station. His heart dropped within him, and his shoulders slumped.

“I have a fix on the station,” he said, barely above a whisper.

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<sup>1</sup> The poem, “Come Home”, was written by Marjorie Avery of Corsicana, Texas, and is used with her permission.

“It’s nineteen miles away.”

No one responded. The supply station had been much farther away than they had estimated. Drastically demoralized, they continued to plug along.

By mid-morning, a snowy haze began to blow by them. Tiny particles swirled through the wind. *If it were warmer, this would be mist*, thought Joe. *Frozen fog. Never run across that before. If things weren’t so desperate, it might be beautiful.*

A slight dusting of dry snow, made up of tiny flakes, scudded along the ground, caught briefly in the hollows, and rose up in eddies. Gradually, almost beyond notice, the amount of snow increased. Clouds obscured the sun and became dark. The day, never very bright in the best of times, became characterized by severe gloom.

The land began to sink. At last the invasion team had crossed the great plain. They dropped down to a lower elevation, coming down an incline, finding switchbacks and carving a path through natural terraces and declivities. As they descended, the snow level increased, limiting visibility.

At the bottom, facing rounded hills and unable to see their way forward, they turned in every direction, and noted the arctic isolation of their surroundings. Where they stood, it was very cold now—about twelve degrees Fahrenheit. The ground was white with snow and the wind had increased noticeably in intensity, screeching powerfully down the incline after them. The five of them knew that on Mars, what is normally a strong breeze could quickly become a fierce gale of hurricane force.

Their food was nearly gone. Their air supply could not last another night. The team’s situation was desperate.

## Chapter 9: The Hooded Man

STARMAN DAVID FOSTER was resting in a small alcove deep in the Martian tunnels. He had extinguished his light and lay in the perfect darkness of the subterranean labyrinth. He was exhausted



and in pain. His back was scored from the laser beam that had been fired at him as he was entering the warehouse next to the *Lizard's Watering Hole*.

He didn't think that the wound was too serious, but he couldn't reach it to apply any salves. He'd taken some mild pain medication his first aid kit provided and some antibiotic, but couldn't do any more than that. His resources had been taxed to the uttermost during the past couple of days. He'd slept little and eaten less, and coupled with that the solitude and the dimness of the tunnels was beginning to drain him mentally.

*If I could just close my eyes and rest*, he thought. *I don't need much. Just a few minutes.* His eyelids drooped and his breathing was slowing and becoming slightly labored. He was on the verge of a long, deep sleep too long denied.

Instantly he was alert. There was a glimmer far down the tunnel. A light was moving. Whoever was carrying it was coming toward him. This part of the tunnel system had been sheared out of solid rock far under the crater floor. There was no dust or need of artificial support for the ceiling or walls. The passageway was a simple, strong tube cut through stone, more than man-high with a flat floor. Zip reached slowly for his weapon. He knew they were coming and he had time to prepare. Other than taking up the weapon, he hadn't moved and didn't plan to. If there were a battle, it would be fought here.

*It's either stay here or retreat through the passage where their only moving target is me. I'll stay here.* He was almost too tired even to think. He kept his eyes open and alert, but without much interest. When he heard the voices, he gripped his pistol.

Four people came into sight, close together in single file. They were not in pirates' uniforms, but in this battle Zip knew that didn't mean anything. The way the lines were drawn, who knew for sure who was on whose side? He had made a couple of forays into the public in the evening just before curfew, cloaked in gray. In his explorations Zip had learned that a good number of people whom nearly everybody liked and trusted had been in the pirates' pay for some time. "People here in Eagle City will

never be the same again after this!” he had been told more than once from a shopkeeper, banker, or maintenance worker.

“Found him!” cried out the man in the lead. He had a flashlight, but no weapon out. His partner right behind him had a stunner, out and fully ready for quick use, but Zip sensed that he was not threatening. He didn’t raise his own weapon, though he could have taken out the stunner with a single shot from the hip. “We’re here to help you, Starman, and by the looks of you now, you might have a right to complain about our lateness. We’re right sorry about that, ain’t we boys? —and Doris?” The latter words were spoken over his left shoulder while he kept his eyes on Zip.

“The name is Donal McTaggart, Mr. Starman, which I can see that you are by your red uniform in spite of the gray cloak and the dust you’re wearin’ on top of it.” The words were spoken in a thicker Scottish accent than Zip had heard in a long time. What Zip had heard was something like, “The naime iss Doe-nall MucTaggart, Meestirr Stahr’mun.” He continued, “Ahnd this heer’s Doe-ris, me pahrtner and wife. Ahnd these two oafs are Dirk and Jacksie.” Dirk was the one with the stunner. Jacksie was armed with a large crowbar. Even Doris had a laser pistol.

“For being pretty-well armed, you don’t look as if I’m your prey,” said Zip in a voice as normal as he could. He hoped it was good enough.

“Oh, indeed not, sair, not threat’nin’ a’tall,” answered Donal. And Doris added melodiously, “We’ve come t’ help yoo.” Her husband picked up the story while she bent over him to check his wound.

“My wife and me, we run the *Lizard’s Watering Hole*. Been proprietors fer goin’ on twelve years nauw. Do a good bit o’ bizness.”

“Respected in the town, too,” Doris added. By “town” David knew that she meant the “west side” of Eagle City where the unattached, independent, unpredictable, unwashed, and immoral found their reason to visit Eagle City. The area wasn’t quite lawless and it wasn’t quite a slum. It was just a place that needed

watching. And it wasn't his concern.

"See, Stahr'mun, we figgered oot that there maught be someone in these tunnels, someone who maught even need some help." That was Jacksie speaking.

Zip turned his eyes to him. "And how did you figure that?"

Dirk answered. His accent was barely pronounced. "We saw Jimmy play the bully on the old man. That didn't set too well with us. Most of the people in the *Lizard* are locals or regular customers, see—even Jimmy. So we didn't like Jimmy doin' that to the old man. We were lookin' out the door when the second patrol came around the other corner. Now those boys weren't locals. They're real tough, see, and they don't mind using force. They're plenty scared, too, see, since the big fuel depot got blown up a few nights back. And they're real mad, on top o' that, 'cause they can't get off of Mars—can't get off fer at least a month! And they're *real* mad that it was only one man that did it to 'em!"

"That right?" said Zip. He had sat up so that Doris could get a close look at his wound. Donal held him up.

Jacksie continued. "So when we saw that this off-Mars patrol saw someone in the warehooose, we didn't think it was any of oor regulars, and it wasn't someone who was too friendly with anybody on patrol. So when I saw that first wild shot, which none of oor boys like Jimmy would ever shoot, I turned to me buddies and said, 'I think we may have a secret parrtner, boys.' And while everybody else was jammin' their heads through that doorframe like a box of oranges tipped up on its end, I pulled Donal and Dirk aside, and whispered, 'and if those off-planet troopers don't tayke a prisoner or a body out of there, I know whaur he'll be. And he's goin' to need some help.' And here we are."

"Moreover," added Dirk, "I'm thinkin' we've found the man that poked the pirates in the eye by removin' the depot from their immediate plans. One man alone, even a Stahr-mun, can use some friends. And nauw you've got some. Besides, if you don't mind me sayin' so, ye're a bit on the young side, Stahr-mun or

no. Some help maught be welcome, I'm thinkin'."

Doris had anointed his back with salve, and now was placing a strip of gauze over it and putting it down with medical tape. "It's painful, but not too dangerous. The salve will help it heal up fast. Now I think you need food and rest in a safe place."

"How did you know where I'd be?"

Donal picked up. "Weel, Stahr'mun, as I said a bit ago we've been here fer a lang time. There are a few of us auld-timers who have located these tunnels that spread a networrrk b'tween the buildings of Eagle City. We surely didn't maike them—ach, no, we surely didn't maike them! But I think that the reel ownerrs haven't been usin' 'em fer a whaile. So there's a few of us who use them nauw and agayn to storre a few things fer some people, and sometimes to haide some things from some people, if you know what I mean, lad?"

Zip wasn't sure he did know, but didn't care too much at the time. He didn't give an answer and Donal didn't seem to need one. Dirk and Jacksie were lifting the Starman up and supporting him so he could walk up the tunnel back the way he'd come. "And now it looks like we're haiding some *people* from some people, don't it now?"

Donal led the way back, flashlight out in front, with Doris at his back with Dirk's stunner ready to go. The slow procession reached the part where the tunnels had been excavated from softer stone and needed artificial bracing. After fifty yards or so, they came to the foot of the brick stairs Zip had used to escape from the warehouse; they passed these by. Another forty or so feet brought them to the foot of another stairway. This was the terminus of several passages, none of them marked.

"Up that way we get to ourr home. And down that way some of our other folks er livin'," volunteered Donal, indicating another one of the passages. "Aboot the only choices they got above is to be not welcome or not safe. Here, they're both. We tayke care of 'em, and sometimes, like tonight, they'll tayke care of us."

Zip was about down for the count. All he knew was that he

was being taken to a place of comfort and safety, where he could eat, bathe, and rest. He trusted his new friends. They carried him down a level tunnel lined with slabs of hard, thick gray brick interspersed with reddish sandstone.

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At that precise moment, more than 250 miles away, Joe was talking. "I'd love a cup of tea right now—just a small cup, steaming, sweet. It doesn't even have to be sweet. Just the tea would be fine," he said. "I don't want to ask for too much."

"You're always satisfied with simple things, Joe," said Mark. "A good challenge with an engine, a little book of poetry, a cup of tea. I've always admired that about you. I wish I could give it to you."

The five members of the invasion team were sitting close together in the tent. They had found a spot somewhat out of the strong wind, behind a ridge not far from where they had descended the incline. The snow was about a foot deep, but it was piling up higher on the windward side. A single heatless light in the center of the circle cast their shadows behind them onto the walls of the fabric. They were warm enough, but the sound of the blizzard came easily through the walls of their bubble, and visibility was only a couple of feet. Large snowflakes in abundance flew by in almost a horizontal direction.

"HEY!" Steve suddenly jumped, extremely startled. He gave Jack an inadvertent smack and sent the Titanian spinning.

"What is it?!" cried out both boys. Steve was gaping and his eyes were staring. He could only point. Mark and Joe looked where he was pointing. When they saw what had startled Steve, they could feel their hands become clammy and their hearts began to race. The hair on the back of their necks prickled.

Out of the racing white blizzard, there was another face staring into their bubble of orange light, a few inches away from the fabric. The head was completely covered with a dark and

impenetrable hood-like helmet, almost like smoked glass. The rest of the figure disappeared into the darkness of the snowy night.

“Steve!” exclaimed Mark. “Who could that be? Who lives out here?”



*There was another face  
staring into their bubble of orange light.*

“Probably a miner,” said Steve, over the first shock. “Maybe there’s a settlement near here. There are a lot of them on Mars, and nobody knows where they all are.” Seeing that he had been noticed, the hooded man gestured for them to follow him. He repeated the gesture two or three times, and then stepped back. The whipping, whirling snowflakes swallowed him up.

“He wants us to follow him somewhere,” said Joe. “We don’t stand much of a chance out here as we are, but I don’t like

just walking after the first stranger we see!”

“The miners are okay, Joe,” answered Steve. “They’re a little strange and they generally keep to themselves, but they’re not hostile.”

“How sure about that can you be when these pirates are around? Who knows who’s in their pay? And who knows what this hooded man wants us for? How’d he find us, anyway?”

Steve shook his head. “I can’t tell you any of that, but I know that without help we’re not going to see tomorrow night.”

“Let’s go,” said Mark. “Whoever he is and wherever he takes us, it won’t be worse than here.” The Titanians got into the shoulder packs, the men put on their helmets, and Steve collapsed the tent. Packing up didn’t take long.

When they were ready, they turned to the hooded man. He was wearing a seamless but thin, lightweight suit of a kind the team members had never seen before. Over his suit was a long black cloak that covered him almost to his feet. There was a small pack on his back with tubes leading from it into his helmet. He was thin and about six and a half feet tall. They were more than startled by his appearance, but also curious.

They had to stay close to the hooded man to keep from losing him in the blizzard. His dark clothing made it easier to see him, but visibility was only a few feet. After a walk of a mile or so through narrow canyons he went into a cave and through an airlock.

Inside there was an enormous room, lit clearly but not brightly. Floor space was several thousand square feet.

“Look at this place!” exclaimed Joe. The room was furnished with numerous tables and chairs; there were also counters and cabinets that were well organized and filled with equipment of various kinds. Some were obviously scientific and some were unidentifiable. Several passages led out of the room, but no doors were open.

“Some miner’s dwelling,” muttered Mark.

Once inside, Joe tested the air. “Strange. It’s a little high in carbon dioxide and a little low in oxygen, but breathable. If we

breathe it straight we may have mild headaches after an hour or so. But we can take off our helmets.” The three of them removed their helmets. The temperature was about 50 degrees.

Joe and Mark were surprised that, although the stranger disconnected his helmet from its air supply and loosened it from his clothing, he kept it on. He made no answer to their questions.

“Steve, who or what is he?” asked Joe.

“I’m as surprised as you boys are,” Steve said, sitting down. “Maybe he’s an eccentric settler or prospector, living below ground because of the thin atmosphere. There are a good number of such types on Mars, but most live in the Asteroid Belt.”

Jack and Jill emerged from the shoulder packs. When the hooded man saw Jack and Jill, he was greatly surprised and uttered his first word: “Varlicep!”

“It is the ancient name of our people!” exclaimed Jill. The five were shocked.

“How’d he know that?!” asked Steve, incredulously. “Even *I* didn’t know that!”

“Too much going on here,” said Mark. “My head is spinning, and I’m tired and hungry.” He wobbled a bit on his feet, and then sat down and slumped over. Joe sat down too and put his head in his hands.

The hooded man hurriedly brought them water in glasses and then some food. He provided food and drink for the Titanians as well as the humans. The food was a thick, soupy liquid served in what looked like earthenware bowls. He spoke only a few words, such as “water” and “food.” His voice was a rich but soft tenor, almost flute-like.

“I don’t know what this is,” said Joe, putting a bowl to his mouth, “but it’s welcome.”

“I don’t think it’s tea,” observed Mark, lifting his own bowl.

“Doesn’t take much to bring your sense of humor back, does it boys?” said Steve.

The hooded man remained uncommunicative, but he was a good host. As they were eating he opened one of the many doors that lined three of the walls of the great hall. From the room



beyond, he brought out cots and blankets.

When they had finished eating he brought Mark, Joe, and Steve to where he had set up the cots, and urged them to sleep. He provided Jack and Jill with small pads for their comfort as well. Then he dimmed the lights and departed through another door.

“Don’t know what to make of him—or this place,” said Mark.

“Mining must be a good business,” suggested Joe.

“No mining operation I know of ever brought in enough to keep a place like this running,” asserted Steve.

“I don’t think he’s a miner,” said Mark. “But he saved our lives, and right now that’s enough. If he can get us started to Eagle City first thing tomorrow, I’ll be satisfied.”

“I won’t be. I want to know more,” stated Joe.

Steve said, “I want to sleep. Time enough to learn more tomorrow.”

## Chapter 10: The Field of Snow

MARK opened his eyes. He didn’t move at first—just took in what he could see in his field of vision. The light was soft and pleasant, and emanated from no obvious source. He could see plain tables, square and undecorated. They were made of something that looked like wood, reinforced with rods of metal. On top of the tables were various boxes, glassware, and control panels. The panels showed a variety of small colored lights, as well as dials, screens, and a few knobs.

He could hear nothing. If the blizzard was still blowing, he wouldn’t know.

“I’ve got a headache,” he said quietly, to no one in particular.

“Me, too,” responded Joe, matter-of-factly. “I said we would. It’s the carbon dioxide. No big deal. It’ll go away if we can breathe a proper balance of oxygen.”

Steve sat up. “Where’s the tall guy?”

“Haven’t seen him yet,” answered Joe. “And I’ve been awake

about half an hour.” He rolled back his blanket and stood up. Mark also stood up, folded his blanket, and placed it on top of the cot. He walked over to the nearest table and gazed at the control panels.

“Lift me up, Mark,” said Jack, who was standing on the floor next to the Starman. “I want to see these machines.”

“If any one of us can figure them out, you can, Jack,” Mark said, placing the Titanian on the table in front of one of the panels. “I can’t identify a thing here. Can’t even read any of the writing. Must be in some kind of code.”

Jack took a quick look at the front of the panel, and then squeezed behind the box to see if he could peer inside. It was sealed. “Can’t see anything,” he said. “I don’t know what it does.”

A door opened and their rescuer came in, still wearing his hood. “Good morning,” said Mark, turning toward him. “Thank you for bringing us here last night. You saved our lives.”

“Are you a miner?” Joe asked.

“No miner,” said the man, after a brief pause. Then he added, “Sit. Food.” Steve, Mark, and Joe sat down, placing Jack and Jill on the table top. The man went out of the room again and returned in a moment with a tray. On the tray there were glasses of water and plates with several items. Each had several bars that looked like beef jerky and a few dark red globes that looked like plums.

Steve picked up one of the bars and took a nibble. “Hmph! Tastes like heavy bread, or something,” he said, and then took another bite. The boys and the Titanians each tasted them.

“Not bad,” said Joe. “Glad we’ve got water, though, to wash it down with.” He reached for the “plum” and smelled it. “Smells sweet,” he announced and took a bite. “Ooh! It’s delicious!” he said, his eyes alight. “It’s great!”

The others tasted theirs and agreed. “Terrific!” said Mark. “Steve, what do you make of this? Have you seen these before?”

“Nope. But I sure hope this isn’t the last time I’ll see them!” He took another large bite out of the fruit.

Their host was sitting with them, receiving nourishment through a straw-apparatus attached to his hood.

When they had finished eating, Mark looked toward the hooded man, pointed to himself, and said, "Mark Seaton." The other four followed his example, and provided their names to the hooded man. The man said, "Jogren."

"We are going to Eagle City," said Steve. "Can you help us get there?"

"You go Eagle City. Yes," said Jogren. "We go now."

The Earthmen looked at each other and smiled.

"Good," Mark said to Jogren. "We go now."

Jogren went to a closet in the main room and brought out a device like the one he had been wearing when he had rescued them the night before. It was a box about six inches square and three inches deep. There were clips on one face, and two slender tubes about three feet long came out of it. He handed it to Mark and went back to the closet for two more, and gave them to Steve and Joe.

"This looks like an intake valve," said Mark. "He was using one last night for breathing. Seen anything like this before, Steve?"

Jill answered, as she examined the unit that Joe had. "It is breathing apparatus. Brings atmosphere in here," she indicated the intake valve, "compress it inside. Breathe through tubes. Better than air tank. Never run out."

"Ideal for a thin atmosphere like Mars'," said Joe. "Wonder where he got them."

"SE's been working on something like this for a while," said Mark. "I've seen the prototypes. They call it an NPAC—short for Nuclear Powered Air Compressor."

"Well, where did *Jogren* get one?" asked Steve. "You work for Starlight Enterprise?" he asked, turning to Jogren. Jogren did not respond.

"I don't like this!" Joe burst out. "We're Starmen, and there should be no secrets from us! Obviously this place is a big setup of some kind and Jogren has equipment that is barely

experimental even to SE. If SE had set up some place like this on Mars we should have been told—especially considering our mission!”

“There are a lot of questions about all this, but we can’t get answers to them now,” said Mark. “We have to get to Eagle City—the sooner the better. Let’s save the questions for later.”

“Hey! Look at this! What does this mean?” asked Joe. On the bottom of his NPAC was a small design—a representation of a planet with cloud cover and three small moons at the upper left, set at the points of an equilateral triangle.

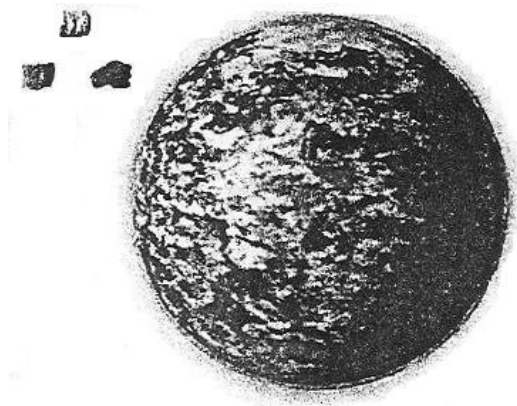
Mark looked where Joe was pointing, and then examined his own NPAC. “There’s one on mine, too. Never saw it before.”

“Steve?” asked Joe.

“Yeah, I’ve got one too. Don’t remember ever seeing anything like it either. Maybe it’s a manufacturer’s emblem or something.”

“With three moons?”

“Well, maybe it’s some kinda trademark.”



“Whatever it is, it’s not manufactured by SE. I hope it’s safe. There’s nothing better than the equipment SE makes.”

From another closet Jogren brought out two compact packages slightly larger and longer than a suitcase. He indicated that the Earthmen were to put on their helmets and that Jack and Jill were to get into the shoulder packs. All of them set their

communicators to the same frequency, then they all went through the airlock back outside.

The blizzard had stopped, and the sun was shining. It was about an hour after sunrise. Behind them were the hills and dunes through which they had traveled the previous night while following Jogren. Before them was a huge plain covered with snow.

“Beautiful,” observed Mark. He said it again. “Beautiful! Eons ago this region was at the bottom of a sea; now look at it!” It was sparkling in the new sunlight. The sun, though not as intense as on Earth, was bright and nearly unshielded due to the thin atmosphere. The crystal faceplates in the invasion team’s suits automatically darkened slightly in the glare.

Jogren went to each team member and installed the NPAC. The box was worn like a backpack and the tubes connected with the normal entry ports the air tanks used. Jogren showed Joe how to adjust the setting to get the proper mixture of oxygen. Joe then adjusted the other NPACs.

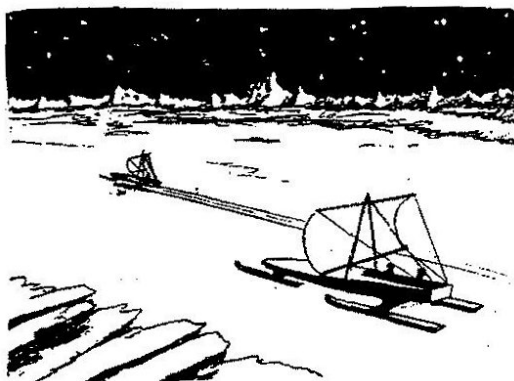
Then Jogren opened one of the packages he had brought out. Within moments he had assembled a small, two-seater vehicle with sails and skis, with an adjustment that could allow wheels to take the place of skis. The sail was rolled up at the bottom of a crossbar just above head height when the passengers were seated.

“It’s a land-sailer!” exclaimed Mark. “This is great! In this wind we ought to cover the territory at a good clip!” He opened the second package and began to assemble the second two-seater. Jogren came over to help, but Mark waved him off. Their host watched Mark work. When the second land-sailer was completed, Jogren said “Good!” Mark indicated that Joe should sit in the front seat. Steve took the back, and Mark sat behind Jogren as he took the lead position in the first vehicle.

Jogren turned to Joe to make sure he was watching, and pulled a switch that was connected to a bottle of some kind. There was a hiss of air and the sail rapidly lifted up and caught the breeze. In seconds, the first land-sailer was moving fast.

Joe pulled the switch on the second land-sailer, and he and Steve took off.

“Whoo-ee!” cried Steve. Jogren’s land-sailer was already way ahead of them, and scooting rapidly across the snowfield. There was nothing on the horizon—just an expanse of snow, extending probably for miles. The sun was a little to the left of the direction Jogren had set.



*Jogren’s land-sailer was already way ahead of them.*

A day later, four men were sitting at a small table in a room without windows hidden in the heart of the tower in Eagle City.

“What about the patrols, Mr. Zimbardo?” queried Troy Putnam.

“No problems there, sir. The population is under complete control. Nobody is allowed to move more than a block from home, except for necessity. The men are patrolling in pairs day and night, with larger patrols in the worst parts of the city. In the most dangerous places, reconobots carry on a continuous electronic surveillance. No problems. These people just don’t have any backbone, and nobody to organize them into resistance.”

The reconobots were squat, cylindrical boxes on casters that

enabled them to move quickly and turn in place. They were equipped with motion and infrared detectors, and were not vulnerable to the usual hand weapons. The robots were drawn to warm-blooded organisms with at least fifty pounds of mass, and were armed with non-lethal weaponry. They were able to produce a mild state of sedation by interfering with neural connections, thereby preventing muscles from moving rapidly and slowing down mental processes. The reconobots could be set to general search and capture, but could also be selective by direction or to an individual according to who was controlling them; once locked on to their target, however, they would not relinquish control until ordered to do so.

The robots could capture up to two tons of mass without losing power, which could be roughly twenty full-grown men. Therefore they could be used to neutralize fierce beasts or capture human beings. Uncooperative human beings could be put into a non-resistant, compliant mode. At full power they could produce unconsciousness.

“Any sign of the Starman?”

“Not for two days, when he was spotted in the warehouse in Sector KK.”

The leader of the pirates was silent for a moment, staring at the table in front of him.

“We can’t take any risks,” he said at last. “We need all our personnel to keep a tight lid on the city, but I’m not comfortable any more ignoring the signal from the pilot of that asteroid ship that tried to land a few days ago. It’s been nagging at me.”

“Just one man in a waterless waste, sir!” responded one of the advisors. “Surely he can’t be important! There haven’t been any more signals since that first attempt.”

“That’s what bothers me, Mr. Tintau,” he said, facing the man sitting opposite him. “If he really needed help, he wouldn’t have stopped with just one signal!”

“He may have been injured in the parachute drop. The fall was from the edge of space!”

“A few days ago maybe that wasn’t too important, but now

the incident must be investigated. Find a crew and take one of the small cruisers. Locate the wreckage and look for survivors.”

“But sir, even if he survived the fall, no one could last long in the desert. It’s been righteously cold out there the past couple of days and there are no settlements out that way. It’s the most desolate stretch in this part of Mars.”

“I know, Mr. Tintau, but let’s not take a chance, no matter how small. We still haven’t found the Starman, and that one man has managed to cripple one critical element of our operation. I don’t want any more surprises.”

“Yes, sir.” Within a half hour, he and a crew of five departed in a small, armed personnel ship, to scour the Coloe Palus area of the Martian landscape.

Shortly after the search ship disappeared over the western rim of Eagle Crater, one of the technicians in the tower of what had been the headquarters of Space Command brought a message to the inner room where the pirate leader took counsel with his chief advisors.

“A fleet of several hundred spacecraft has left the Earth-Moon system, Captain, and is on a course for Mars.”

Putnam’s face drained. “What is their estimated time of arrival?”

“They have an extraordinary acceleration, sir. At the rate they’re moving, they’ll be in Martian airspace early on July 22.”

Putnam referred to his records. “We will have refined enough fuel at that time to stock our ships almost to half capacity.” He looked up at the ceiling and mused aloud. “That’s more than we’ll need to engage them well above the atmosphere. If necessary, one antimatter bomb can destroy the entire fleet. When the Earth fleet is destroyed, we will be able to take our forces to their home planet on our own time schedule without any appreciable opposition. This move of theirs can work very much in our favor.”

He turned to the technician and smiled. “Thank you, Mike. We won’t be caught dead on the ground.”

“Very good, sir!”



## Chapter 11: The Mud Cave

BY THE END of the second day the temperature had warmed noticeably and the snow had melted. There were only a few patches of snow in slight depressions, and these were too small and too slushy for travel by skis.

Jogren stopped the company about midday and adjusted the land-sailers so that they traveled on tires. The tires were only a foot in diameter, but were soft and wide and had a moderate tread, capable of traveling swiftly on sand, dirt, or light snow. The land-sailers could not move at quite the same speed they had achieved on the snowfield, but the company still made rapid progress.

As they sat in a circle over dinner Joe was filled with optimism.

"We've come far in these past two days," he said exultantly. "I'll know better when the stars come out and I can take some measurements." He had tried to find out from Jogren when they could expect to reach Eagle City, but Jogren had only said, "Soon. Very soon."

The sun had not quite set when Jogren stopped them. He had not explained why their travel was over for the day, although there was still a little light. However, no one complained. Travel by land-sailer was not easy, and there were plenty of sore muscles. Steve in particular was groaning, and he ate walking around.

Wisps of cloud were strung across the sky like streamers. As the sun set, the clouds rapidly turned pink, then orange, then deep red, and finally a fiery purple. All at once the land was dark, and the clouds were white again, framing a vision of the stars. Phobos had just set and would not be up again for about five hours, and Deimos was on the opposite side of the planet. Joe took out his equipment to take measurements.

"Hmmm. Can't see too many stars here with all the clouds, but I think I can see enough of them to get a fix on our position relative to Eagle City."

“What is *that*?” exclaimed Mark suddenly. Joe and Steve turned to him, and then followed the line of sight where he was pointing.

Out in front of them it looked as if the terrain were glowing. Beginning about half a mile out and continuing as far as they could see, weak fluorescence spotted the land. It was a cold, solemn, pale green light, making no particular pattern. As they watched, portions of it faded out and others faded in. Like eldritch fire, the glow covered the land in front of them.

“Steve! What is it?” called out Joe.

“Beats me, boys! Jogren, what is it?” Jogren was unmoved. He seemed to be searching for a word, but couldn’t find one. He picked up a rock, covered it with his hand and uncovered it again, and then held it up for inspection. Then he covered and uncovered it again.

“What’s he trying to say?” asked Joe.

“I’m going to go take a look. It’s not far,” said Mark.

“I’ll come with you.”

“Take us with you,” asked Jack. The Starmen picked up the Titanians and began to walk toward the phenomenon.

Within a few moments, they had reached the edge of the glowing field.

“It’s a kind of lichen—luminous,” said Joe as he stooped down to prod the source of the glow with his finger.

“Odd. Very odd. The light doesn’t quite come into focus, even up close,” observed Mark. “It’s like soft fire. And it fades in and out. Look, that one over there is fading, but the one next to it is getting brighter. Doesn’t seem to be any pattern to it.”

Jack and Jill were examining the lichens together and chattering in their own language.

“The stuff is alive. It’s bioluminous. Wonder what makes them flash on and off.”

“Maybe they’re communicating,” said Mark.

“Plants can’t talk!” retorted Joe.

“This is Mars, Joe. Who knows what plants can and can’t do? Even on Earth we know that plants respond to voices and

other sounds. And really, even though human beings have lived here for over a century, we don't know much about the planet. Most of it has never been explored."

"Well, it sure is eerie, isn't it? Acres of these odd plants glowing on and off, in some sort of weird rhythm, gently pulsing. What a scene!"

~

The next morning the team set off just as the sun was breaking over the horizon. The lichen field appeared completely normal by daylight. It extended for several miles. Hares and small kangaroos, imported from Earth several generations earlier, had made the lichen field their home. The boys caught sight of them occasionally as the land-sailers made progress through the expanse.

"Hey, Mark! There're your Martian gophers," shouted Joe. "'Classified as *Aresius gopherius diminutivus*, if I remember correctly.'"

"I'll bet those creatures feed on that lichen," responded his partner. "Wonder if they glow in the dark!"

~

Mark dropped his jaw, breathed a silent, "Wow!" and then just stared. A huge opening had appeared before the travelers, shaped with graceful curves, swirling sharply off to the right with an entrance at ground level about eight feet across, widening at the middle, and then narrowing into closure at the top about forty feet above them.

The team had been traveling less than half an hour when Jogren brought them to the cave entrance. The vast dry seabed they had crossed, beginning in snow and ending in lichen, was behind them. A palisade of hard, dried mud rose from the plain and extended on both sides in front of them for several miles. Jogren had brought them directly on a bee-line to the entrance of the cave.

“It’s a mud cave,” Steve informed the others. “I’ve heard of these, but never seen one. Some of the settlers from the far-flung parts of the area used to talk of these things when they came into Eagle City. Like a lot o’ things in creation they’re beautiful, but they’re also dangerous.”



*A huge opening had appeared before the travelers.*

“I can see they’re beautiful. Why dangerous?” asked Joe.

“Cave-ins. The ground is not solid. But the caves’re worth the risk. Cave-ins are rare, and the caves make travel easy through difficult territory. Without this cave, we’d have a hard time getting over the palisade. We should be okay.”

“Looks as if they’re made by water,” observed Mark.

“Well, obviously,” said Joe. He and Jogren had finished wrapping up the land-sailers into portable packages, and the company moved into the shadows of the entrance. The sun was still on the far side of the palisade, and the cave mouth was dim. After they had entered and their eyes had become accustomed to the dimness, Mark spoke up.

“Look at the layers of sediment here. This was the bottom of a sea a long time ago.” He pointed to the walls of the cave where there were subtle gradations of chalk, tan, ochre, brown, sienna, and loam shades in the light of the distant opening.

The dry climate of Mars kept the earth hard, but the occasional heavy rain created rapid floods that shot through washes and narrow defiles. There were many caves in the palisade, winding, overhung, patterned, and excoriated with signs of urgent water flow, yet dusty and (in places) crumbly to the touch. Only the one cave was large and accessible.

Most were not really caves, since they were open to the sky and illuminated with shafts of light, yet there were places where the overhang was severe, creating places of dim shadows. The mud caves were dusty, waterless places except in the times of flood, when surging waters whirled through the defiles, eroding the sides and carving out smooth, curved places under the mud cliffs.

No part of the path was straight for more than twenty or thirty feet; it was bewilderingly circuitous, yet led inexorably to the southeast, toward the plain before the Martian Sea. Eagle Crater lay beyond the sea.

Steve said, "Doesn't rain in the desert too often, but I'll bet it usually falls hard when it comes. The water gushes swiftly and finds the path of least resistance. The hard-packed earth of the palisade, baked for millennia in the sun, is easy to carve, lots easier than stone. Over the decades since terraformation began and water was released back into the ecosystem, hard rain has shaped the palisade and produced many caves."

The company had been hiking for about two hours when Jogren called a halt for a meal and a time of rest. Though there were passages where they walked through a true tunnel, most of the time they were trekking through an extremely narrow canyon. The opening to the sky was narrower than the level on which they were walking, and was rarely straight overhead.

They set down their packs and tried to find a spot to stretch out. Wan sunlight slanted in from above like a sunbeam through an attic window. Jack and Jill jumped to the earth and began to explore.

The lonely beauty around them was profoundly impressive. The water had carved the passages with perfectly natural curves

and swirls. The Starmen had never seen anything like the mud caves. They could only be produced on a dry planet, sun-baked for millennia, which suddenly began to experience heavy rains repeatedly for the first time in centuries.

"Steve's right," said Mark. "This place is not completely safe." He pointed to huge chunks of wall and overhang that had fallen to the path. "I wouldn't want to be under one of those slabs when it fell."

"I wonder what's in here," mused Joe, peeking into a small crevice that turned off the main path of the major mud cave. It had a narrow opening, into which he could barely squeeze. He put on his light, and pressed past the twisted edges into deep darkness. In this cave, there was no opening above through which illumination could enter. Joe had gone only a few feet when he went out of sight behind a turn. His light left a wavering pattern on the gray wall of the passage, and then disappeared altogether.

Jogren noticed that Joe had disappeared, and cried out, "Joe! No!"

"Come back, Joe! Jogren says to come out," added Mark, with alarm in his voice.

"Okay, okay," said Joe, coming out backwards since there was no room to turn around. Jogren grabbed Joe and pulled him back into the middle of the group.

"I wish you could talk more, Jogren," said Joe. "I'd like to know more about this place. Can't be that dangerous. These caves are really exits for rainwater. None of the caves can have a dead end."

"That, however, is no guarantee that you'll be able to get through 'em safely," said Steve. "We need to trust Jogren here. He lives here. He knows the caves."

Jack and Jill returned. They all packed up and continued the journey through the cave.

"I'm still curious," said Joe. "I'm bothered. It won't leave me alone: who is Jogren? Why doesn't he speak?"

"He's no prospector," said Mark. "There is no record of any

prospector living out this far from the cities.”

“Since when do prospectors tell people where they are living?” said Steve. “They do their best to *conceal* that information.”

“Steve, c’mon. You know he’s no prospector.”

“Maybe he’s one of the Wind People.”

“The Wind People? I thought they were pretty well extinct, or assimilated into the settlements,” said Joe.

Steve looked intent for a moment. “Most of them were,” he said, “but maybe not all. They go back a few generations. When the pioneers returned to Earth a little more’n a hundred years ago in the early years of the Collapse, two or three thousand people stayed here—maybe more. Many stayed in Eagle City; they’re the ones who kept the knowledge of the tunnels alive, but when people began to return to Mars a couple o’ generations later they kept the tunnels secret.”

Mark and Joe listened intently. They knew about the tunnels, but the story of the Wind People never failed to fascinate. Never before had a people changed so radically in so short a period of history.

“From the first years of the Collapse, though, a good number of ’em left the city and went out into the desert to start fresh. They became known as the Wind People. Whether they could survive on Mars or not was a matter up for grabs, but they had become disgusted with society and didn’t want to return to a planet on the verge of possible extinction. They renounced Earth, learned to live alone, and came to prefer it. They stayed on Mars to eke out a living, taking the risk that they could make it without regular shipments from Earth. Many died, but not all.”

“Are you saying that Jogren is one of them?”

“Well, maybe he’s descended from them. Not having dependable energy sources or supplies from Earth, they adapted and used what the land provided. They used the desert winds for transportation and energy. They learned how to use gliders and even dirigibles to travel on the constant winds of Mars. Even some of the newer settlers use ’em now. The Wind People made

land-sailers and windmills. When people from Earth re-established contact with them, the Wind People had developed a culture far ahead of what anyone could o' guessed after the short period of time since contact had been lost. And they had become aloof from other Earthmen.

"An interesting fact was how the Wind People had adopted some unusual philosophies and taken on some changes in language. Who knows how that stuff happened? Their founders were Kevin and Colin Teagarden, twin brothers who established the first settlement that lasted. The brothers weren't particularly charismatic leaders who led the people into new teachings, so the values and beliefs that emerged so quickly had to have come from another source. Whatever happened, the Wind People became very different."

"Sounds as if nobody really knows much about them," said Mark.

About a mile farther, Jogren stopped and pointed to another small crevice.

"Look," he said, and gestured to Joe. Joe looked around at the others, and then took out his light, turned it on, and went in. The others followed as Jogren entered the aperture after Joe. The cave was closed to the sky, but widened a little once they got past the first few feet. It wound into the side of the palisade about sixty feet, and then opened into a large round room with a smooth level floor, about fifteen feet in diameter. The room went up about twenty or thirty feet, where there was a wide opening on one side. They couldn't see sky through it, but light came through dimly.

For a moment, they were awed by the unique setting. Then Mark said, "Boy, when it rains, there must be a raging waterfall inside this mound!"

A distant sound came from outside, at first resembling a whisper but quickly building up to a roar.

"A ship!" cried Mark.

"It can't be friendly!" said Steve. "We're enemies or strangers to almost everybody on this planet—'specially any



space lizard who's got access to a ship!"

"Enemy," said Jogren.

"Looking for us," added Joe grimly. "They decided to send out a search ship after all."

In seconds, the roar subsided into the distance as the search ship passed overhead into the west. For some time the members of the expedition stayed in place, only turning their heads and looking at one another with tense expressions. When the silence had been complete for several minutes, Jogren said, "We go now."

The walkers returned to the main passage in the mud cave and set out again on their serpentine way through the mud palisade, wending ever eastward.

As the sun reached a point nearly directly overhead, the party arrived at a rare open space. They greeted it with relief, since they had been squeezing through one tight space after another, with many spots where they had to climb over crumbling overhangs or descend into pits like ravenous throats. All four were covered with the fine dust of the mud caves.

"At last! Open sunlight!" exclaimed Joe as he burst into the small valley after Jogren. It was a bowl about fifty feet across, with the walls of the palisade rising up in every direction at a steep angle. Opposite the narrow slit from which they had emerged was another opening, much wider than the one they had left.

"This must become a small lake when it rains," said Mark, gazing about appreciatively. Two or three small bushes struggled out of the packed earth.

"Let's eat!" begged Steve. "That search rocket went off west, so we oughta be safe enough in this hole for an hour or so. The sky's a welcome sight after these hours of tottering through this dried mud labyrinth. My stomach's pretty shrunk up with all this expenditure of energy we've been doin'."

Joe eyed Steve critically, and then observed worriedly, "Yup, you've become a little narrow around the equator. I was anxious that you might have gotten corked in those passages we just quit,

but I can see now that I needn't have agonized over your safety."

Steve, looking through his supplies for his lunch, was too occupied to offer a rejoinder. Mark inflated the tent and they all entered it. Once it was sealed, Mark removed his helmet and rubbed his face.

"Ahhh. Feels good," he sighed.

"Provender," said Steve in a business-like fashion. "Let's get the edibles out."

Suddenly Jogren stiffened. A second later, they all heard it—the distant drone of a ship, coming in fast from the west.

"We're sitting ducks!" shouted Steve. They all scrambled to replace their helmets. The drone became louder.

"All helmets on?" asked Mark tensely.

"Go, go!" urged Joe. Mark withdrew the air into the storage tanks. Everyone ran from the tent and Mark deflated it. The ship passed overhead and was quickly past them, but the Starmen and their companions heard the sudden shift in the sound of its drive.

"Leave the tent," cried Joe.

"Can't," said Mark. "If they see it, they'll know someone was here!" He didn't bother to pack it, but simply scooped it up and ran for the defile on the far side of the bowl. The search ship returned to the opening in the palisade and began to circle before Mark could reach the entrance to the cave. A powerful laser beam churned the ground just at his heels as he scrambled for the shelter of the passage where the others had already taken refuge.

A thick cloud of choking dust filled the bowl. Even through their filters, the humans could perceive the acrid smell of burned air.

"Mark!" cried Joe, looking back toward the spot that, seconds earlier, had been such a placid site.

The big Starman's bulk loomed up through the swirling veil. "I'm okay," he said. "Move it, move it, keep going!" All of them heard the ship circling again.

Jogren led them a rapid pace, with Steve not far behind him, hastening through the meandering passage. Joe was next, with Mark taking up the rear, still clutching the loose folds of the tent

in his hands.

“If they’re smart, they’ll drop a few small bombs,” panted Joe.

“Good idea!” shot Steve through his gasps for breath. “If they don’t think of it themselves, maybe you can find their frequency and make the sugges—”

At that moment, the palisade shuddered under a detonation, followed quickly by two others. The floor of the passage dropped, and everyone was knocked off his feet. The walls shook and began to crumble.

## Chapter 12: Heartfelt Hospitality

DAVID CAME INTO THE ROOM and stopped short, surprised at the crowd and the meal that was spread out. He’d been invited by Marjie Prester, one of the Tunnel People, to come in to dinner. When he’d arrived, the entire company of Tunnel People was standing around and grinning. Before them lay a spread that reminded David of Thanksgiving Day back in Amundsen City.

He was in the great hall, not far from the intersection of several tunnels. It was the gathering place and central area for those who lived in the tunnels. Usually there were a dozen or so tables set up separately, and people came and went as they needed. Now all the tables had been pushed together to form two long lines with chairs on both sides.

“This is amazing!” he said. “How did you ever put this together?”

“Well, Starman, it’s not often we get honored guests like yourself,” answered Stavri Thalassa, who was the unofficial leader of the enclave. He was a somewhat stooped man in his fifties with slightly sunken cheeks, thinning black hair flecked with gray, and age marks on his hands. The twinkle in his eye and wry smile contradicted the impression that he was a burdened man. He went on. “And there are too few occasions where we get to celebrate down here in these tunnels. We’ve

managed to put a few things together here and there, and our friends on the surface were in on the preparations. They contributed some of the staples you see here.”

There were bowls of apples, unleavened bread baked hard almost like crackers, fresh greens, steaming yams, mixed beans, slabs of white and yellow cheese, sliced light and dark meats, mashed potatoes, sparkling water, even red wine. The best stoneware dishes had been brought out and the places were set with real metal forks and knives rather than the usual plastic. Candles had been placed strategically on the tables and cast a homey glow over the scene.

The Starman was overcome with emotion at the kindness he had received from these outcast people. His eyes teared up at the unconditional acceptance and respect he had received in the tunnels under Eagle City. There was enormous but humble strength in the people who had to make their home in the tunnels.

For the first day after his arrival he had mostly slept, dimly aware of the soft ministrations of Marjie and her tall, gentle husband Richard. They had brought him strongly seasoned applesauce, tea, and unleavened bread. Marjie had bathed his wound and changed the dressings, and then let him sleep.

The second day he learned a little about the Tunnel People. Donal McTaggart had said that, on the surface, they were either “not welcome or not safe”. Each had a different story. Some were debtors to dishonest businessmen, who had no scruples about cheating the naïve out of their possessions. Others were just eccentric and couldn’t function well in society.

Still others were handicapped in some way—one-time engineers for small exploratory firms who had been injured, could no longer work, and had no place else to go. Others were highly skilled in professions that were no longer valued or needed. A few had run afoul of the law for some minor but complicated infraction. Their offenses now mounted up on the books with an enormous fine beyond their ability to pay, or a jail term far in excess of any reasonable span.

The Tunnel People numbered a little more than fifty. Most of them were men. Over several years they had built a functioning society below the crater floor and had explored the tunnels for long distances in several directions. They lived on the generosity of friends on the west side of Eagle City. In exchange for their livelihood they performed several services. Providing hiding places was one of them. Giving good advice was another, for there were a few among them with the gift of insight and wisdom—as is often the case with the alienates of society.

David Foster was now welcomed as one of them.

“Sit down, Starman,” said Stavri Thalassa, with a generous sweep of his hand. Once he had taken his seat in the great hall, the others sat down. David looked around him at his new friends. It had been three days since Donal had brought him to the Tunnel People. He had eaten and rested, and now he felt thoroughly refreshed. Tomorrow it would be time to decide what to do next.

Stavri said a word of thanks, and the people began to pass the serving dishes. Conversation began at several places all at once.

Across from David was Uneven Stephen, a stone carver. He had been a frequent visitor to David, once he had recovered his strength, and the two had quickly become good friends.

Stephen, a powerful man in his early sixties, had once earned his living by carving the great stones quarried elsewhere on Mars and brought into Eagle Crater to rebuild the city. In the early years of his life he had created masterpieces throughout the settlement. He had always been in demand, as builders had wanted him to depict scenes from Earth on the doorways of their homes, front panels of public buildings, and capitals of the columns of the great edifices. He carved images of forests, wild animals like lions and bears, and famous Earth landmarks to delight the homesick hearts of the immigrants to Mars.

The next generation, most of them born and raised on Mars, was far more utilitarian, and his projects became fewer and fewer until he could no longer support himself by his work. Unable or unwilling to learn another trade, and somewhat resentful that the prominent people in Eagle City had come to

consider his work impractical, he had gone in a fit of depression to the *Lizard's Watering Hole*. After becoming a regular, he had learned about the Tunnel People and had decided on the spot to join them.

He was called Uneven Stephen because his stone carving had developed the muscles of his right arm noticeably more than his left. He wielded the hammer with formidable power, and with it achieved miracles of beauty in the stone of Mars. Now he worked in the tunnels, keeping his art alive. On great blocks laid down eons before when the tunnels had been built by their unknown designers, Uneven Stephen was producing works that excelled anything he had ever done on the surface. His audience of outcasts and their few visitors numbered fewer than a hundred people, but they were privy to the most magnificent beauty in stone that their planet could boast.

Marjie leaned across the table and addressed David. "Isn't it ironic, Starman, that we who were the people least free in Eagle City are now the only ones not under the control of the pirates?" She chuckled, and Uneven Stephen guffawed.

"You're right, Marjie!" Stephen boomed. "But I think we've always been the freest people on Mars! What about these pirates, now, Zip? What're we goin' to do?"

Zip informed those nearest him, a group that included the Presters, Stephen, and Stavri Thalassa, that he had sent a message to Earth but had no idea whether it had even been received. He told them also that he had destroyed the supply depot that was the source of the pirates' fuel. His listeners yelled with delight when he told that story! Conversation began to die down elsewhere among the feasters, and everyone in the great hall paid close attention to what Zip was saying.

He gave a brief rundown of Earth's strengths and weaknesses in its ability to meet the crisis that the pirates had created, but added that he was unable to have any further contact with Earth.

When he had finished speaking, Stephen responded, "Well, maybe the best we can do is some kind of guerrilla warfare. It probably can do little more than make the pirates nervous and be

very irritating, but I'd take pleasure in it!"

"We can't win this war by ourselves, but we'll do our part," agreed Stavri. "We're none of us very bright, we don't have much firepower, and our computers are old. But we have the tunnels and we know how to stay hidden."

David thought for a moment. Then he said, "My friends, I am more grateful to you than I can express. Your loyalty to Mars is more than it deserves. You're right. We can't take back control of Eagle City and throw the pirates out, but we can show them that they can't just drop in and take over without a fight."

"And a fight they'll get!" affirmed Uneven Stephen.

"We don't want to use the tunnels too much, though," said Zip, "or we risk being discovered and having your entire culture taken."

"You're right, David, of course," said Stavri, "but if we do nothing, it's only a matter of time until we're taken anyway. And we've got plenty of people up top doing nothing already."

~

Back in Amundsen City, Dr. Keith Seaton and his wife Barbara stepped out onto the observation deck of their home. The sky was a warm black, the star-field stretching above them in a glittering canopy.

"I'm uneasy," said Barbara. "We ought to have heard something from Mark by now."

Keith didn't answer for a moment. "Maybe," he said, "although there are plenty of good reasons why he hasn't communicated with us or anyone at Starlight or Space Command. Still..." His lips tightened a little bit. He was thinking that their son's first assignment was far more critical than most Starmen received in an entire lifetime. In this grave and unprecedented situation, he and his partners *had* to succeed!

He gazed out at the dazzling crystal and metal latticework of the city, musing on how Thomas Starlight's foresight nearly a full lifetime before had assured that Amundsen City would

become a majestic metropolis and not merely a utilitarian settlement, no matter how large. What had begun as a Starlight mining operation for lunar helium-3, built at the south pole because of the abundant presence of ice in perpetual shadow, had grown into a sight that drew hundreds of thousands of visitors each year. The ice, brought by comets, had accumulated over eons of impacts to provide sufficient water for the largest city in civilization.

Keith Seaton nodded. Thomas Starlight's genius had also created the Starmen. It was hard to think of civilization now without Starmen. Humanity had come to depend on them—now, perhaps, more than ever before.

~

Captain Troy Putnam stared at the reports that had come to him from several sources within the past few hours.

One report informed him that such ships as they could raise would be ready to meet the incoming Earth fleet on time. The remaining fuel had been allotted to the ships so that each would have enough for two or three hours of flying time, from liftoff to safe descent. That would give them about an hour—certainly no more than that—for battle.

*A pretty narrow window*, thought Putnam, tightening his lips. *Well, it'll have to do.*

There was another report, this one from Mr. Tintau, reporting that the search ship had spotted a man wandering in the mud caves. If he were the asteroid miner who'd parachuted from that old ship they'd shot down five days earlier, he had traveled a considerable distance in a short time. He had fled from observation, so the ship had dropped three bombs that collapsed the caves in an area about fifty yards across, where the fugitive had last been seen. The ship would remain on patrol in the general area for a day or two unless the Captain wanted to order them back to the base.

Putnam sent a response: "Tell Mr. Tintau to continue his patrol



for two more days. If he finds no other signs of unauthorized personnel in the desert, he may consider his assignment completed and return to base.”

A third report indicated that the authorities on Earth had sent another communication and that, as the Captain had ordered, strict silence had been maintained. The report asked whether the “no response” policy was to be continued.

Putnam answered, “Maintain current policy. There will be no communication with the authorities of Earth until I give the word.”

## Chapter 13: The Mining Colony

STARMAN MARK SEATON, last in line, was in a narrow defile when the bombs detonated. There was only a foot or two of space between the sides of the passage. Overhead, great blocks of mud separated from the wall, collided, and then froze in place as the rumble continued. Beneath, Mark was safe from the collapse of the unstable passage.

“Joe!” he called. “Steve! Jack! Jill! Jogren! *Anyone!*”

“Mark,” came Joe’s feeble voice. “Are you okay?”

“Yes, I’m free! Where are you?”

“Back on the Moon, planting a row of peas in my garden. Where do you think I am? I’m holding onto Steve’s ankle and we’re covered in dust and dirt and chunks of hard mud, each about the size, I think, of a fusion engine.”

“Steve?”

“I’m okay, and just as hungry as I was before.”

Jack and Jill and Jogren checked in too.

“There can’t be too much debris over you or you wouldn’t be able to breathe,” said Mark. “The dust is clearing and I can see now. I’ll dig you out.”

He emerged from the open space underneath the great blocks that had protected him and began to crawl over the pile of rubble in front of him.”

“Ooof!” said Joe. “You just stepped on me. I could feel your weight. Start digging.” Mark pulled aside chunks of dried mud and scraped away pebbles and dust from the pile below him. Before long he exposed Joe’s shoulder. Ten minutes later Joe stood beside him. They clasped hands and smiled.

Within half an hour, the other two had been dug out of the rubble. Equipment checks showed no damage to the nearly impervious spacesuits.

“We go now,” said Jogren.

By late afternoon, the mud cave had steadily widened and the palisade become lower until the group found itself in high rounded foothills. Even these softened until the party was walking single file through rolling hills covered with light vegetation and small trees. The terrain was too rough for the land-sailers. Before them, however, the land appeared to level out. Tomorrow, perhaps, they could re-assemble the wind-powered vehicles and pick up the pace again.

There was no sign of the ship that had attacked them, but they remained sharply vigilant.

~

*The wind is not predictable or steady on the desert*, thought Joe. Often it was strong and constant enough to keep the land-sailers going at a good clip, but at some times there would be gusts from out of the north, and at others the wind would die down almost to nothing.

The sand was smooth, but also dotted with rocks and pebbles. Joe had to keep his mind on steering constantly. The strain was wearing. Jogren in the other land-sailer wasn’t showing any signs of stress at all. The other vehicle was, as always, a little ahead.

“I wonder where that ship went,” mused Steve. He kept looking behind them, watching for it to appear out of the west. “We don’t have any choice but to keep going, but on this desert we may as well be shooting up flares to show ’em where we are.” He shared his concerns with the others.

"At least the wind obliterates our tracks," shouted Mark from the other land-sailer.

They were sailing into the sun, just a couple of hours after sunrise. Thin, wispy clouds made a ribbed pattern above the horizon, and they glowed with golden fervor as the sun rose above them.

"We've been traveling a week since we dropped out of the sky to this vacation spot," put in Steve. "If we can find a way to get across the Martian Sea we could be at Eagle Crater tomorrow night."

"Good," said Joe.

"Can't wait," said Mark at the same time. But he felt a twinge of nervousness as he said it. Tomorrow night they could be alone in the enemy's stronghold—five against...how many? Several hundred, probably.

Twice the wind dropped almost to nothing and they had to stop, fold up the land-sailers, and walk. Fortunately these pauses were brief, but while they lasted they gave the members of the invasion team an opportunity to stretch and ease painful muscles in their legs, backs, and rear ends. Except for the trek through the cave they had been sitting a lot during the preceding few days but still had to work their muscles to keep from losing their balance or falling out of the land-sailer.

By mid-afternoon they crested a gradual rise, and then the land began to drop in a very gentle, barely-noticeable slope. Before them they saw the western shore of the Martian Sea about a mile away. Jogren braked his land-sailer, and Joe pulled in next to him. Everyone got out. Wordlessly they gazed at the sea, stretching to the far horizon.

After a moment or two, Jogren lifted a hand and pointed.

"People," he said. The others squinted, seeing only a pile of large rocks on the shore of the sea. The rocks marked the end of a ridge that rose gradually from the south out of the plain of the sea, like a ripple in a carelessly thrown blanket.

"What? Where?" asked Mark.

"People," repeated Jogren. He began to fold up one of the

land-sailers.

"He's leaving us," said Joe. "I think we're on our own from here on."

"To be expected," explained Steve. "These desert people don't want any more contact with civilization than they can get by with. We'll get some help down there, sure, or he wouldn't leave us here. He's saved our lives and gotten us across more than 200 miles of wasteland. I'm satisfied."

"*Satisfied?* I'll say we are!" exclaimed Mark. He turned to Jogren, where Joe was helping him load the packaged land-sailer into the back seat of Jogren's vehicle.

"Thank you, Jogren. We all thank you," he said, and extended his hand. Jogren hesitated, as if he didn't know what to do. Then, almost mechanically he extended his hand as well. Mark took it and pressed it warmly with a brief, heartfelt shake. Joe and Steve followed suit.

Jack and Jill expressed their thanks from the Starmen's shoulder packs.

"Ah! Varlicepl!" breathed Jogren. "Good." He pointed again at the rocks and the end of the ridge, and said a third time, "People." Then he added, "Go." He turned, mounted the land-sailer, and began to move slowly across the desert toward the northwest, tacking across the reddish sand.

"Odd fellow," said Joe. "I'd like to know more about him."

"I doubt we'll ever see him again," suggested Mark, "but I'm sure grateful to him. Now we've got to press on to Eagle Crater. We're not out of this by a long shot."

"Hmph," snorted Steve. "We're not even in it yet. Let's go."

Ten minutes later they approached the end of the ridge. What had seemed like rocks from their first vantage point turned out to be large boulders, emerging like broken bones from a wrinkled land. The desert they had just crossed came to an end here, with the sea before them and low ridges multiplying toward the south. Scrub brush covered most of the area in the vicinity of the boulders and small trees grew on the ridges, in some places becoming groves or small woods.

No one had said anything since they had begun walking, but as Joe entered the first shadowed valley where the boulders began he said, "Jogren said there were people here. I sure don't see any sign of them."

"How about that?" said Mark. Nestled in a dark alcove was the outer door of an airlock. Great walls of weathered stone made a natural entry to the airlock, restricting entry to a narrow passageway and making the door invisible unless one stood right in front of it.

"That'll do," said Joe. He walked up to the airlock. It was made of thick, dark glass with a metal frame that looked like aluminum. He couldn't see through it. He tapped on it, but got no response. The others came around him and he pulled out his light and shone it into the door. It only reflected back, revealing nothing of what lay beyond it.

"There's gotta be a switch outside, some way to open it," said Steve, looking around, but there was nothing obvious.

"Give us chance," said Jill. "We find it."

"Your specialty," said Joe, and took his shoulder pack down. Jill jumped out. Jack joined her. Jack checked the joint at the doorframe, while Jill investigated the area near the place where the frame was molded to the rock..

"Here," she said after a moment. There was a recessed place on the left side, barely discernible in the frame near the base of the door. "Press, Joe."

Joe pressed the spot, and the door lit up, as if a light had been turned on from the interior of the airlock.

"We could open, but better to wait," said Jill.

"Right," said Steve.

A moment later the glass cleared, and they could see three men on the other side. They carried weapons, but did not wield them in a threatening manner.

"Who are you?" asked one of them through an intercom. He was a short, stocky man, very solidly built with a thick black beard and short wavy hair.

Mark spoke up. "Crash landed. Lost our way in the desert.

Almost out of food and water. Can you help us?"

"Are you from Eagle City?" asked the beard.

"No. We were trying to land, but didn't make it."

"What's happened in Eagle City? We haven't heard anything from them for over a week."

Mark decided to take a chance. "It's been taken over by pirates. We're Starmen, sent from Earth to prepare the city for an invasion force. We need your help."

After a quick glance at his two companions, the man with the beard opened the airlock and invited them in. When the inner door had been closed the invasion team put their helmets and NPACs in the suit racks. The man looked curiously at the NPACs, and then with amazement at the Titanians.

"You've got a story to tell," he said. "Come with me," and he turned and led the company down a well-lit, rock-hewn passage.

~

Some time later, the Starmen and Steve had finished telling their story. They were sitting in sofas arranged in a lounge. They had been served some modest food in small portions. Glasses of clear water were in front of each, with small servings for Jack and Jill. The Titanians sat on the table top in front of the Starmen.

The room was comfortably but very plainly arranged, with furnishings that clearly had a lot of history to them. There were books in plenty, two or three computer terminals, a lot of storage space, and shelves full of box games. Several doors led out of the lounge. A double door led into a kitchen, and others led into living quarters, workshops, and hydroponic gardens.

Around them were seated about a dozen men and two women. The man who had first greeted them had introduced himself as Mickey Jones. He had explained that he was the leader of a small mining company that took ore from the southern ridge. The colony lived simply, disdaining many of the comforts of the larger settlements. Joe had to admit to himself

that there was something attractive about their way of life.

“Well, that explains a lot,” Mickey said. “When we lost contact with Eagle City, we were irritated at first. Every once in a while something goes wrong and we can’t talk to them for maybe a few hours. But when it stretched into a couple of days this time, we were really puzzled. Longer than that, and frankly we were worried. We’ve only got supplies for about another month, and it was getting close to the time when we set sail for the Crater to replenish our stores. We only go about once a year, when we have to, and we don’t like to be gone from here for too long.”

“We get set in our ways,” said Linda, one of the two women in the colony, “and it doesn’t take much to upset our routine. We’re rationing now. Maybe we don’t have to, but we live on the edge out here. We’ve learned not to take any chances.”

“What you’ve told us is not too encouraging,” said Mole, another of the men. “But at least we know what’s going on now.”

“And that something’s being done about it,” added Mickey. “We’ll help you. We’ll supply you a large kayak. It’s how we get to Eagle City. You can make it in one long day’s journey. Start tomorrow before sunrise and you’ll get to the Crater some time after dark.”

“Thank you, friends. Jogren steered us to the right place,” said Mark, taking a swallow from the water.

“Never heard of this Jogren fellow,” said Mickey, his brow wrinkled in puzzlement. “Don’t know how he knew about us. Don’t mind saying that your account of him mystifies me.”

“Mystifies us, too—especially me!” chimed in Joe.

“But he got us here in plenty good time,” said Steve, “and plenty direct too. And he’s obviously on our side. There are lots o’ mysterious people out there in the wastelands, and I’ve learned not to ask too many questions. I’m not even very curious any more.”

~

“It’s 4:00 a.m.,” announced Mark unnecessarily. The alarm had gone off, its soothing sounds gently bringing the sleepers to a state of comfortable wakefulness. They had agreed the night before that they would wake while it was still dark and so be on their way before sunrise. Crossing the sea was a journey of about seventeen hours if they had dependable, favorable winds for most of the journey. They had packed after the evening meal, so there was little to do now but set out.

Moments later Mark, Joe, and Steve, with Jack and Jill, were assembled on the shore. Mickey and a couple of the other miners were with them. Seven kayaks were pulled onto the sand in a small cove protected by large boulders. They were sturdily built, but primitive. Three were one-seaters and three could accommodate two passengers. Mickey had explained that these were used for fishing not far from shore.

The invasion team took places in the only three-seater kayak the mining colony had. It was used for the annual trip to Eagle City, and had ample space for storage. If necessary, the colony could always radio for emergency supplies to be sent by airship, but they preferred their independence and traveled by kayak whenever they needed contact with the city.

“It’s about 100 miles to the other side,” said Mickey, repeating what he had said the night before. “The wind is good. You should be there a couple of hours after nightfall.”

“Thank you, Mickey,” said Mark. He shook hands with the miner and his companions. “We are obliged to you.”

He got into the kayak, where Steve and Joe had already taken their places. They had food for about four meals—plenty if they reached their goal.

Neither moon was up. Uncountable stars shone in glory, and were especially bright toward the night-dark west. The black silhouette of the rocky promontory blocked out the horizon over the desert behind them.

To the east there was the beginning of a glow on the horizon, giving promise of incipient dawn. As their shadows began to appear and stretch across the desert, the members of the invasion



team pushed off and began to paddle. A mile or two from shore they hoisted the sail. The barest edge of the sun lifted up over the horizon and blinded them as they began traveling rapidly before the morning wind, following the blazing path that the new-rising sun had created on the smooth water.

## Chapter 14: Across the Martian Sea

COMMANDER JOHN LEWIS sat at his desk, staring unblinking at nothing in particular. He was motionless, and the only noise in his office was the murmur of bubbles coming from his aquarium. In spite of the serene setting, thoughts were charging rapidly through his mind.

He glanced over to the aquarium, a hundred-gallon pillar of crystal that rested on a large pedestal on the floor. He watched the graceful angelfish and neon tetras gliding as if weightless. They moved among the tendrils of small vines, and fed upon the bits of food that were drifting down from the vent above. The Commander had just spooned the daily amount of fish food into the portal at the top of the aquarium, standing on a footstool to do so. The tiny particles caught the illumination from the desk lamp and came down like slow, sparkling rain into the watery world. At the bottom of the tank were a few catfish, scavenging among the decorative rocks and colored marbles.

Commander Lewis was not as confident when he was alone in his office as he had appeared to be when he had given the order to Communications a half hour or so earlier.

The executives of Space Command had met with Richard Starlight to take counsel about the situation on Mars. There had been considerable concern that the invasion team had been silent. They had been on Mars for a week.

"If the pirates had discovered and overcome the invasion team, we would surely have heard something from the usurpers about it," had suggested one of the Commander's advisors.

"But if the team had succeeded, we would surely have heard

from them,” another had said, “but we have heard nothing from anyone. It’s a puzzle.”

“Should we try to contact the Starmen?” another official had asked. After some discussion of the risks involved, Richard had said No. There were more risks in trying to contact the Starmen, even by encryption, than in waiting for them to initiate the communication.

“The pirates will be watching all attempts at extra-planetary communications since Starman Foster was able to get a message through within minutes of their landing on Mars,” he’d explained.

The conclusion, then, based on partial information was that the pirates were still in control of Eagle City in spite of the absence of any signs of aggression. Commander Lewis had therefore ordered Space Command to contact the attack fleet from the Earth-Moon system, now nearly half-way to Mars, to inform them that there had been no word from the team, but neither had there been any sign that the pirates had suffered a blow. He ordered them to proceed on course to Mars at top speed and be prepared to initiate an attack on Eagle City at the instant he gave the command.

The meeting closed with that decision and Commander Lewis had gone to his office. The lives of the men aboard the fleet were dependent upon his orders. He was a good man. He didn’t like making that kind of decision when he didn’t have all the facts.

He was certain that his fleet couldn’t attack Mars head-on and expect to win. There were too many ground-based defense systems on the planet, so that even if the pirates’ entire fleet were not flyable, they could still repulse any attack he might launch.

The Commander pursed his lips. He thought that somehow the Starmen had failed in their assignment. If so, he wasn’t surprised. It was a tough assignment for anybody, but especially for untried new graduates from Starlight Academy.

Lewis watched an angelfish swimming unhurriedly through the water, very slowly spiraling upward. He wondered about Putnam’s claim concerning some monstrous, inimical alien race.

Could there be any truth behind it? He thought not. Much more likely that his words were just evidence that he was delusional.

It was a fact, however, that Putnam had not responded to any communications at all for a long time. No one could know for sure what that meant, but there was a good chance that something had gone wrong in the pirates' plans. He was a little encouraged by that. His eyebrows lifted a little. Maybe, just maybe, the Starmen had had a measure of success after all.

There were still several days before the fleet entered Martian airspace. He would have until then to decide what to do once they arrived.

~

Zip cautiously peered out from behind the panel into a dark maze of pipes.

"Clear," he said, and opened the panel wider.

"Figured it would be," said Stavri Thalassa, who was next in line. "This place is deserted even in the middle of the day."

There were six others with them. They had emerged into the lower level of the water and electrical supply systems of one of the barracks and storage centers for weapons, located not far from the city center. The pipes were in a long, narrow corridor that connected two buildings underneath one of the main streets.

"Shouldn't take long," said Uneven Stephen, one of their companions. "I remember this place from when they were building it and I was carving the lions and elephants from the African veldt on the front. I'll sure be sorry to see them disappear."

"You won't see it happen, Stephen," muttered Stavri, already kneeling beside one of the pipes, and grunting as he pulled at a panel door nearby. "You'll be far away when they go."

The door opened, and a bundle of wires lay beneath it like spaghetti. Stavri removed a couple of small tools from a smock he wore. He reached in. Zip held a dim light for him to work by.

The others had gone several yards down the corridor in both directions and kept watch for any other presence.

“Got it,” said Stavri, with satisfaction. “It was easy. Now they’ll never find what we’ve done until it’s too late. Your turn, Michael.” Stavri had bypassed the indicator lights that glowed in a control panel upstairs wherever there was a danger in the tunnels. Michael Sayer, once a petty thief, could now sabotage the water system without fear of his handiwork being detected.

It took longer than they expected, but he successfully rerouted the water for the main supply tank where it was heated, altered the pressure indicators, and sealed the system.

“Okay, it’s done!” he announced, almost gleefully. “That’ll get their attention real soon... Uh—we’d better go.”

“How much time have we got?” asked Zip.

“Oooh...maybe as long as forty minutes. Probably much closer to twenty.”

“Man! Let’s *move* it! The alarm will give them ten minutes notice, and we can’t be anywhere near here then. Go!” The eight of them returned to the panel behind the pipes and conduits, sealed it behind them, and walked rapidly back toward the west side of the city.

Thirteen minutes later the alarm went off with ear-splitting intensity, giving warning of an imminent, full-system failure. Less than two minutes later the order to evacuate the building was given. At the end of the ten minutes, the water-heating system let loose and blew out the basement and bottom story of the structure. There was no water for the automatic sprinklers and an intense fire began to spread through the building, reaching quickly to the upper stories.

“Well, that won’t put them completely out of business, but about a hundred of the pirates won’t have a comfortable place to sleep tonight,” announced David to the group. He and the Tunnel People were huddled at a confluence of passageways nearly half a mile from where they had sabotaged the water system.

“Right,” agreed Stavri Thalassa. “And unless they took their weapons to bed with them, we’ve put a good dent in their store of arms, too—and right close to the city center!”

~

Even with steady winds, the first hours of sailing in a kayak had not been a smooth experience. The sail needed frequent attention to keep it filled and prevent the kayak from wobbling. By midday, however, the invasion team had learned how to keep the sail adjusted with a minimum of effort and they scudded along at a good clip, running before the wind. They ate their second meal of the day as they conversed.

“How deep is this Sea, anyway?” asked Joe. “It’s really pretty shallow, isn’t it?”

“Yes,” said Mark. “Pretty shallow, but wide. Terraformation’s only been going on since 2009 when the meteor shower hit Mars and heated the atmosphere.”

“I know that,” said Joe. “And the sudden warming melted much of the ice at the poles, freed up ground water, and all the rest of it. Then we helped the process along with satellite monitoring, by introducing compatible life from Earth, and by setting up atmosphere generators. But I’m a little vague on the geography of where we are right now.”

“This used to be called the Nilosyrtris. Before terraformation began and the oceans began to fill it, the site was a low depression that extended northward from what is now the great equatorial sea. It gets much deeper to the south.”

“This part doesn’t even have an official name,” added Steve. “I don’t know why, because it’s so close to Eagle City. We just called it the Martian Sea.”

“Look up there,” observed Mark, taking a bite out of a slice of cheese. “Is that an island?”

“No islands up this way at all,” answered Steve. “You get islands farther south, but not for a long way.”

“What is it, then?” asked Mark. He was looking at a dark mass a short way ahead and a little to the left. It was barely above the surface of the water but seemed fixed in place. He finished a piece of fruit and threw the rind over the side for the denizens of the sea, and then picked up the cheese again.

“Plants,” said Joe, who was seated in the front. “It’s a bunch of plants floating around.” The kayak was skimming past a Gordian tangle of squishy dark brown vines and creepers, with some touches here and there of new green. A few bright red flowers were dotted around on the surface.

“Must be really shallow here if these things have roots that go down to the bottom,” said Joe.

“They might not need roots,” said Mark. “They might just float, getting their nutrients from the water and air.”

“Weird,” said Joe. “Almost looks as if you could walk on it.”

“Maybe you could,” suggested Steve. “That tangle does look awfully thick. I wouldn’t try it, though.”

“If I were you I wouldn’t try it, either,” agreed Joe, helpfully. “I only weigh about one-fourth what you weigh, though, Steve.”

“*One-fourth*? Why, you fly-weight, no wonder you live on the Moon. If you lived some place that had wind you’d have to tie a rope around your waist just to go outside!”

“I might weigh as much as you if I lived on Jupiter,” observed Joe.

“When this is all over,” Mark broke in, “I’d really like to come back here and explore.”

“I’m with you,” said Joe, throwing the rest of his cheese into the water. “I’d like to find Jogren again when we’re not in such a hurry.”

A sudden swirl in the water next to Joe caused him to yell. A great snout appeared, a cavernous mouth opened and pulled in the small piece of cheese, and the silvery hide of a sea animal rolled by and disappeared.

“Wow! What was that?” shouted Joe.

Steve shot back, “That was a Martian minnow. Why don’t you jump in and give it another little tidbit?”

“No, thanks, Steve. I’m too busy counting my fingers to see if I’ve still got them all.”

But that was not the last of the sea creature. Almost at once there were five or six of them, keeping pace with the kayak, and occasionally bumping it.

“Get serious, boys,” Steve ordered. “This is not a welcoming committee. They’re after more treats.”

The fish looked like dolphins, but were a little smaller and definitely not friendly. The bumping against the kayak became more aggressive.

“Should I pop one?” shouted Mark anxiously, pulling his pistol out.

“Not yet,” said Steve. “Might not help and there may be no need.”

“This canoe is primitive, Steve,” said Joe, with a worried tone.

“Yeah, but well built. Those miners are practical folk. They travel this sea now and then and know what dangers they face. I’m betting this kayak was made with these fish in mind. Just hang on.”

“Let us help,” put in Jack. “We can banish fish.”

“Be my guest,” said Mark, giving the Titanian plenty of room. Jack connected up a couple of wires to the controls on Mark’s suit, and then said, “Throw this into water.” Mark threw the wires into the sea. Immediately the fish drew away from the kayak, moved off to the side, and then fell back.

Steve, sitting in the back, turned his head and announced, “They’re going back to that floating wad.” In a few seconds he couldn’t see them any more.

Mark asked, “What did you do, Jack? Some sort of sound?”

“Yes. Sound through water. Uncomfortable for fish.”

“Glad you and Jill came on this vacation, Jack,” yelled back Joe from his place in the front. The kayak continued southeastward.

In the early evening, they saw land in front of them. As the kayak surged ahead, the ground rose until it filled the forward horizon. Beyond low hills they could see the western walls of Eagle Crater.

As they ate their third meal, the sun dropped into the sea behind them. There were no clouds, and the dusk fell quickly. Almost directly overhead Deimos shone like a large, unblinking

star, and Phobos speeding by it in the opposite direction, was heading into the ascendancy.

There were stars everywhere, above them and reflected in the sea, along with the sparkle of phosphorescence streaming from the wake of the bow wave. There were no lights on shore. It was as though the sea was as vast as outer space, and being on the kayak was like shooting through vitreous night from one star to another. Gradually, the darkness of the approaching shore filled the horizon, blotting out the stars.

Almost exactly sixteen hours after setting sail from the mining colony, the team beached the kayak on the eastern shore of the Martian Sea southwest of Crater 91, known for more than a century as Eagle Crater. The terrain close by was dense with darkness, relieved only by starlight and the silver softness of Phobos overhead. It was fast approaching 9:00 p.m. The beach was narrow, and large rocks climbed up from the edge of the sand. Steve and Mark pulled the kayak far up from the beach and nestled it in a cranny Joe had found in the rocks.

“Almost home,” said Steve.

They turned to look for a way up through the rocks. The crater wall loomed above them, its jagged edge like vicious sawteeth across the star-filled heaven.

## Chapter 15: Discovered and Pursued

“THERE’S a way up over here,” called out Mark. In most places, the great rocks that defined the sudden end of the beach were sheer. There was no obvious means of gaining access to the land beyond, and the team members had been searching for a crevice where they could climb. They had been moving slowly southward, with Mark in the lead.

As Mark announced his find, Joe quickly joined him. “Yeah, we can make that without too much trouble,” he said. They began to ascend, with Steve puffing a little behind them. It was a matter of only a few moments before they had scaled the natural



barrier and stood on top of the blocks of stone.

“Well, let’s go,” urged Steve after he had completed the climb. A gradual slope led up from where they stood to foothills at the base of the crater wall. It was less than half a mile to the spot where the wall jutted up out of the plain. There was no sign of any light or other evidence of human presence.

The foothills were barren of any vegetation. Quickly the team passed through them, taking precautions to stay in shadows.

Suddenly Jack made a startled sound. “Hsst! Light below!” he said. The three humans fell quickly to the ground and turned back. There was a dock about a quarter of a mile farther south, with a pattern of lights along its sides and several bright globes where it connected with the land. The team stared at the dock, watching for signs of life.

“I don’t think we’ve been seen,” said Steve after a couple of minutes had gone by. “We didn’t see the lights until we got to this higher elevation. The terrain that hid it also hid us from anyone who might be down there.”

“Unless they saw us and are already creeping toward us in the dark,” warned Joe.

“Either way, the best thing is to move on,” advised Mark.

“Right,” agreed Steve. “You boys lead and I’ll watch our backs.” He put his weapon in his hand.

The scene was illumined by the soft light from the stars and the circling moons. Phobos was inclining toward the east, casting the shadows of the hikers down the slope behind them. It was impossible to see details of the climb until they were right on them, but they did not put on their own lights. The top of the crater wall was nearly a mile above the surface of the sea, but the climb was not difficult. In about half an hour, the team had achieved the top of the wall without incident.

They gazed over the edge onto the plain spread below them. The lights of several settlements were evident in the pristine night air. Eagle City was nearest and largest, far below them. One of the buildings was furiously burning.



*They gazed over the edge onto the plain spread below them.*

“Look at that!” whispered Joe. “Something’s going on down there!”

As they were looking on with strong curiosity, their vigilance waned. Suddenly a small ship passed over them from behind. The team scrambled into the crater, panicky in their speed, wondering if they had been silhouetted in the city lights.

“Did they see us?” yelled Joe.

“They went by so quickly, maybe they thought we were just part of the jagged crater wall,” cried out Mark hopefully, as they all three plunged down the inside edge of the slope.

“Whew!” gasped Steve. “My fault. I said I’d watch our behind, and I thought we were safe when we reached the top. I’d forgotten all about that blasted search ship!”

“Think it’s the same one?” asked Joe. “That was two days ago!”

“Who knows?” answered Steve, gasping out his words as he slid and jumped down the incline. “It’s a ship, coming from the west. There’s no reason to go that way that I can remember.”

“Just be quiet, everybody!” commanded Mark. “Our line-of-sight communicator beams can be overheard now that we’re inside the crater. Turn off your communicators. Just try to stay

together and get down the slope as fast as you can!”

The low gravity of Mars allowed them to move rapidly. There was greenery on the inside of the crater, thin and scraggly, but larger than the tiny plants they had encountered in the desert. As they continued to descend the slope, the scrub turned into small trees and then rough forest.

The ship made a leisurely turn and passed over the general area with two searchlights scanning the terrain. As it cruised by, the team lay hidden and motionless.

*We're safe*, thought Mark. *We made it down the hill before they turned. They can't be serious about a search or they wouldn't be so casual. They're just making a cursory tour to satisfy curiosity.* Then he stiffened, and his eyes widened.

*Dust!* he said to himself, with a sharp intake of breath. *There's a thicker atmosphere inside the crater. Our dust is staying up!* He could see light clouds of red dust hovering above him on the slope, pointing like an arrow from below the crater rim precisely to where they were hiding.

*Oh, miss it, miss it!* he agonized inside himself as the searchlights went by.

The ship still cruised, not yet concerned but not yet abandoning the search. The bright circles of the two lights crossed the woods, lazily moved around on the slope, and then returned to the woods.

*They're not giving up. We can't stay here*, he thought. He slid over to where Joe was, touched his partner's boot and, when Joe turned, pointed down the slope with a frantic gesture. Joe lifted his eyebrows in a silent query. Mark picked up a handful of dirt and dropped it, making a small cloud of dust. Then he pointed up the slope. Their dust was settling, but still visible. Joe's eyes looked, and then opened wider. He leaped to his feet and started down, with Mark in the lead. Steve, a few yards away, saw them and followed.

After a moment, Mark looked back just in time to see a searchlight pick out the remnant of their dust. It was almost gone, but traces still hung in the air. The ship's searchlights

began to crisscross the slope below with sudden intensity. The three picked up speed and leaped down the slope.

Almost at once, two other ships lifted off from the city and turned toward the slope, apparently to join the search.

*They're still above us*, thought Mark. The three ships were searching the forested area below the trail of dust they had left. They were making a thorough job of probing the forest with their lights. One began to search lower down.

The three humans reached the bottom of the crater wall. In front of them the ground leveled out. The city was about a mile ahead through thick forest, dotted with open areas that were covered with deep grass and a few large shrubs. To one side there was a field of a cultivated crop of some kind.

They scrambled hurriedly through the remaining terrain, sometimes losing sight of each other and then coming together again as they moved forward. The searching ships had moved down closer to the city and one was now searching the crater floor. Then it was joined by a second. Their lights moved rapidly back and forth.

About a quarter mile from the city, a searchlight caught Steve lumbering along. Steve was just about exhausted and was breathing heavily. Immediately a beam of electric red light seared the ground around him—a laser fired from one of the ships. Helped by a great burst of adrenaline, he doubled his speed and escaped for a moment from the revealing circle of the spotlight's beam. Before it could locate him again, he was under the canopy of a large tree. Mark and Joe were somewhere ahead, but he had lost track of them.

The beams of the searchlights continued to scour the area where Steve had been spotted. Having caught his breath, he moved quickly forward with his eye on the edge of the city. It was only about a hundred yards away now, but the ground was relatively bare. If he had to run, he'd be spotted and speared for sure. *Where are the boys?* he thought.

As if in answer to his question, a human shape loomed up out of the dimness on one side. It was Mark.

Mark took Steve by the arm and pulled him back away from the city to a place under the trees. Joe was waiting there. Now that they were well into the deep portions of the crater, the Starmen had removed their helmets. Steve removed his as well.

When Steve took his place next to Joe, the Starman clapped Steve on the shoulder in a friendly welcome. Then Joe gestured toward the city. "Take a look at the wall," he whispered.

Steve looked up carefully. "Hmph!" he snorted and nodded his head. There was a line of armed men all along the top. Their silhouettes showed in front of the glow from a burning building not far from where they stood. The three ships continued to move slowly over the field and forest, searchlights scanning the ground.

But now Steve knew where he was. He recognized the buildings where the men were standing, and was oriented to Eagle City. He glided to the right, calling the Starmen to follow him. "There's a way in over here. If they don't see us, we'll be safe inside in a couple o' minutes."

Staying under the cover of the trees, he progressed carefully about two hundred yards. Then he came to a small stream. He looked back to make sure that Mark and Joe were following him, and then ducked down quickly even lower than he had been. Seeing Steve dive down, the boys crouched low, and then glanced over their shoulders and saw that a dozen or so men had come from the city and were searching the field for intruders. They were in pairs. One carried a powerful light, and the other had a high-powered weapon at the ready.

When Mark and Joe turned back toward Steve, he was gone. He was already a good ten yards away from them, crawling rapidly through the streambed toward the city. They scrambled after him.

In a short time, they were within the shadow of the city wall. Steve had stopped and was running his fingers through a clump of brambles on the bank. His hands moved carefully but quickly, sifting the sand and probing beneath it.

Joe glanced over his shoulder. A pair of men was about fifty

yards away, scanning the ground carefully, moving directly but slowly in their general direction. *They'll find the streambed in a moment*, thought Joe. He prepared his weapon. The Starman glanced back at Steve, and saw him moving with near-frantic haste now.

All at once, both Steve's hands shot toward a place on the bank, and in a second he had opened a concealed door. The opening was only about two feet wide. Steve urged Mark to enter and Joe followed. Steve brought up the rear, squeezed through, closed the door, and sealed it. The darkness was absolute.

After a second, Steve put his light on. Their shadows made huge patterns on the walls behind them.

"Whoo! That was close!" he said.

"How did you know about this place? Is this one of the old tunnels?" asked Mark.

"Kind of. It leads to them, anyway. I remember this tunnel from my earlier years here. I've been through it a number of times before when I didn't want to be seen coming or going. We should be fine now. Follow me."

The walls of the tunnels were made of sand, but they had been sprayed with some sort of clear plastic sealant. Every few yards there was a frame that kept them from collapsing. The tunnel was unlit and primitive, but serviceable.

"We're inside the city limits now," he announced after a few minutes of walking. "We'll be able to join up with the old tunnel system in about a hundred yards."

"What's that up ahead?" asked Joe. Light was coming from around a corner. It flickered, intensifying and fading, and then returning without any predictable pattern.

"Don't know," said Steve. They turned the corner and, to their dismay, saw a barrier of fire a little way off. "Must be that building we saw burning from outside. I hope we can still get into the old tunnel system."

"Yeah, let's hope so," muttered Mark. "We sure can't get by that conflagration."

In seconds they had come as far as they could. The tunnel

was jammed with fallen debris. Some of it was chunks of rock, other portions were pieces of twisted metal pipe and burning material.

Steve was not stopped for long. "Back up," he said. "There's another way out of here, but not to the old tunnel system. It leads to the surface."

"We can't go topside!" exclaimed Joe. "All those armed men are up there."

"For sure we can't go back outside, either," Steve said. "Let's just see what we can see."

A few yards back the way they had come there was a side passage. Steve took it. A minute later, he came to some stairs and ascended slowly. Joe and Mark followed.

"Leads to a sub-basement," he explained. The passage came to a dead end. Steve pressed his hands against the wall and slid them around both sides of the door, and then along the top. "Got it," he announced. A small panel slid open at eye level. Steve looked through it, turned his head from left to right, and said, "Okay."

He found a fixture and opened the door. The three of them stepped into a dark room. It was empty. Steve shut the door, crossed to the opposite side of the cellar where there was a door and opened it. His weapon was in his hand. A flight of stairs was barely visible, all but the bottom three steps in inky darkness. "Go!" he commanded.

They ran up the steps, coming into another room, larger than the sub-basement. One door led apparently into another part of the building, and another door on the right side had a window in it. Starlight filtered through a dusty pane.

Steve peered carefully through the glass in all directions.

"Clear, I think," he said. He turned the knob. It was locked.

"Blast!" he breathed.

"Help me," said Jack, pointing to a box not far away. Mark and Joe stood it up on end so that it made a platform on which Jack could stand and reach the knob. Jill joined him. For several minutes they worked on the lock. Tiny lights flickered, and then

they said, "Open."

Steve turned the knob and opened the door. The team stepped out into a comfortable breeze of chill night air, though marked with the scent of burning.

"No guards," said Steve after a quick glance around. To their left and above them was a blazing building, completely engulfed. It was only a block away.

"If there were any guards after us, they've apparently moved away from the fire and are still looking for us in the field," said Mark tersely. "But we can't stay in the open for long."

"Let's get into the old tunnels," said Steve. "Then we can catch our breath and reconnoiter. But we've made it into Eagle City, men!"

The team moved from shadow to shadow until they left the burning building behind them. After a few minutes, the building was only a glow in the sky.

"Right here," announced Steve, and entered a structure through an open door. The Starmen followed and found themselves in an unlit room piled with boxes.

"Warehouse," he explained. "Door shouldn't be left open, but I won't file a report." He pulled the door closed. Mark and Joe looked into the shadowy corridors that led off the room they were in, and listened for any sound of another presence.

"Down!" whispered Steve sharply. They all dropped as a group of three men with weapons patrolled by the front of the building.

"Hey, Zack!" said one in the back of the group. The patrol stopped and the other two men turned around. "This door was open when we came by a while ago. I remember because I opened it to look inside, and left it open when we were called to the wall."

"Check it!" said the one addressed as Zack. "I want to get the vermin who blew our barracks up, and it wasn't anybody in the fields outside the city! Come on!"

The three armed men entered the room with their lights on and weapons prepared for sudden action. The room was empty.



Steve was in the basement with Mark and Joe, hurriedly running his fingers over a panel that led into the old tunnel system. In seconds he had found the apparatus to open it.

On the other side, with hearts beating fast, stood Starman David Foster and seven Tunnel People, weapons drawn.

After they had destroyed the barracks and storage area, David had said, "The pirates are going to figure out real fast that we are only able to escape detection by traveling underground. They'll be looking for tunnel entrances before too long, if they're not doing so already." He had directed the Tunnel People to spend an hour or two patrolling the tunnels nearby to watch for any signs of attempted entry.

They had searched in pairs, finding nothing, and had gathered together again before returning to the great hall where the Tunnel People lived. Then they had heard a scrabbling noise at the tunnel door not twenty feet from them. They had moved up close to the door and were prepared to fire as soon as it opened.

~

"Mr. Putnam." Ban Zou Men's voice was steady, patient, and clear. That was the most frightening thing about it. The words were measured, as if a mechanical device produced them, but there was deep, thoughtful, human calculation behind them. There was flesh and blood in the words, though they were as cold as icicles on Pluto.

"This plan was virtually guaranteed to succeed. Yet, somehow, two or perhaps three individuals have breached your security. Moreover, you have not located the elusive Starman, though he has now sabotaged your operations twice. *Twice*, Mr. Putnam. This is beyond my understanding, Mr. Putnam. I congratulate you. Very, very few things are beyond my understanding. This situation is one of them. I have begun to doubt whether you will succeed. Because of your ineptitude, more than five years of my calculation and clandestine labor stand to be wasted."

Troy Putnam felt his hands trembling as if with palsy. They

were cold and clammy, and a freezing sweat stood out on his forehead. He dared not wipe it off for fear of showing his terror of his superior. Yet he knew without question that the large Chinese man, who dwelt in the shadows of Mars and was completely unsuspected in the assault on the planet, could discern that he was near panic. He was afraid even to move. With inner alarm, he suddenly realized that he had even stopped breathing. He had to do something. With a surge of willpower that strained him to the uttermost, he opened his mouth. He could not lift his eyes, but he quickly inhaled in order to gasp out a word.

“No, don’t speak, Mr. Putnam. Spare yourself. I do not need you to speak. You have nothing to say. I am completely aware of the situation and what you have done, and failed to do, about it. I am afraid for you, Mr. Putnam.” The voice paused for a moment. Putnam wondered if he had heard Ban Zou Men draw a breath. Or was it a sigh?

“But there is a chance that you may yet succeed. The Earth fleet is only days away. You still have what you have called ‘defensive’ capabilities. Perhaps you will survive. Perhaps you will be able to gain time and take the advantage once again. I encourage you do so. I strongly encourage it.”

## Chapter 16: Moving to the Offensive

“MARK! JOE!” gasped David Foster, lowering his weapon.

“Zip!” cried Mark and Joe together.

“These are Starmen!” explained Zip to the Tunnel People.

“Quick! Let us in!” urged Joe, and pressed forward, forcing Zip and his friends to give way. Mark and Steve pushed in after him and Steve shut the door. He motioned with his hand, sending the others scooting down the tunnel as he sealed the door. Then he ran after them and caught up quickly.

“We’re safe now,” said Stavri. Just the same, the eleven humans kept up a rapid pace away from the site of the encounter.

“Are we glad to see you!” said Mark to Zip. “What’s been going on? What have you been doing?”

“Tell you later,” said Zip. “We’ll get back to the west side and then we can exchange news. I’m sure we’ve all got a lot to share. But just tell me now; is there help on the way? Are you here alone?”

“Yes to both,” answered Mark. “Earth’s fleet is due to arrive in four days. We’ve got less than that to make sure that they aren’t blown out of the sky when they get here. As you said, tell you later.”

As they hastened through the tunnel, quick introductions were made all around. Stavri led the group unerringly through a warren of tunnels, never missing a passage. Even Steve, who knew the major tunnels, was impressed. During their flight to Mars, he and the Starmen had reviewed their knowledge of the ancient tunnels from the files they carried, but there were places Stavri led them that were new to him.

Half an hour later the group had returned to the community where the Tunnel People lived. They entered the great hall and greeted the crowd that was there. Within moments, exuberance was high among the Tunnel People as they met the new arrivals.

Jack and Jill were welcomed with greater excitement than the Starmen. Titanians were rarely seen even in the Earth-Moon system, and usually only in major cities and bases like Amundsen City. Most of the Tunnel People had never seen Titanians in person.

Mark, Joe, and Steve were slumped in stuffed chairs set around a low table. Marjie Prester brought them some hot chocolate.

“Oooh, this is good!” breathed Joe as he brought the aromatic drink to his lips. He held the white mug with both hands. He looked exhausted but content.

“Do you feel up to telling your story, or would you rather rest?” asked Zip.

Mark answered. “Zip, I’m so tired I’m impressing myself that I even have the strength to bring my jaw back up after I open

my mouth. We've traveled about 350 miles in a week, —"

"Been shot at twice," added Steve.

"Almost eaten by sharks," Joe contributed.

"—one Martian minnow," Steve corrected.

"Slept in snow," continued Mark.

"Got chased by three enemy ships," Steve said.

"And been tormented by sitting on a speeding Martian desert sailboat for days on end," complained Joe.

"Yeah—speaking of ends, that was a bit uncomfortable!" Steve agreed, shifting down gingerly a little deeper into his chair.

"Okay, okay," laughed Zip. "Feel free to clean up and go to sleep. We can get down to business in the morning."

"Clean up.' Sounds too good to be true. Lead me to it," said Mark.

~

They were all up by mid-morning. Marjie doted on them while serving a large breakfast. With a couple of assistants, she brought them platters of boiled potatoes with onions, sliced fruit, cheese, and eggs scrambled with diced meat. Fruit juice in elegant glasses gave a classy touch to the meal.

Once they had put their napkins down, both sides quickly brought each other up to date. Joe and Mark were enormously relieved to learn that Zip had already achieved their first assignment: to prevent the pirates from lifting off from Mars.

"What a load off my mind!" Joe sounded off. "I can't tell you how that's been weighing on me! And all for nothing! If only we'd known!"

They reported that their second assignment was to sabotage the pirates' defense operations, and that they had less than four days to achieve this, since Earth's fleet was on the way and due to arrive in Martian airspace by that time.

They pointed out that unless the second assignment were achieved, Earth's forces would be overwhelmed with firepower from the surface, and the pirates' plan would merely be delayed by a matter of weeks.

“Okay. That’s our immediate and only task, then,” affirmed Zip. “But the pirates’ defense system is formidable. Besides a few hundred men on the ground, there are the spaceships, ground-based lasers, a satellite system, and more than a few missile systems. Most or all of these have to be disabled in order for the Earth fleet to have any chance of success.”

“We know all that, Zip,” said Mark. “We got a full briefing from Space Command before we launched, and we brought records with us of everything they thought we’d need to know.”

“Let’s see what you’ve brought with you.”

Stavri Thalassa was the Tunnel People’s computer expert, but the Starmen were well-versed in computer operations as well, and each carried a small, portable machine capable of reading the disks they had brought. Stavri took the group to the study off to one side of the great hall, where the Tunnel People had their terminals.

“Wow! Did Lee High Eagle bring these sets to Mars when he stepped out of his ship for the first time?” asked Joe.

“They’re old, all right,” admitted Stavri, “but not quite that old.”

“I doubt whether these computers can read the disks, but we’ve got our hand-held sets.”

“Not everyone can read those at the same time, though, Joe,” said Mark, “and that’ll slow our work down. What about running the disks through our portable sets but transferring the display to these terminals?”

“We can do that,” agreed Joe. “Probably Jack and Jill can do the hookup faster than any of us.” He turned to Jack. “What do you think, Jack? Can you do it?”

“We can do it,” said the Titanian.

Half an hour later they were ready. Joe sat down, opened up a hidden compartment in his left boot that was located in a false toe, and removed a small, clear plastic wrapper. Inside was a tiny fluff of crinkled, rainbow-colored plastic, pressed into a ball smaller than a pea. He withdrew the iridescent ball, set it on the tabletop, and gently blew on it. The warmth of his breath caused

the ball to expand. In seconds, it had become a disk thin as gossamer and about four inches in diameter.

"Here you go," he said. Zip took the disk and inserted its edge into a paper-thin slot on the side of the portable set. Automatically it was drawn completely into the box. Then Zip pressed a button that pulled a file up on the large screen of the archaic instrument Stavri had offered them. A detailed map of Eagle City appeared, current up to a date thirteen days before.

"Yep. Here we go," said Mark, and leaned in to see better. "These systems were not built with tight security in mind. No one was seriously thinking about a war when they were built. However, all of them are now in enemy hands; no matter how dedicated the Tunnel People are, we can't take them back by force."

Zip began an orientation. "I was on the spot when the assault on Mars began. Since I escaped from the tower, I've kept tabs on where the pirates are located. They are concentrated in a few places in the city. There are barracks out by the fuel refinery I blew up; there are pirates at the site working around the clock to fix it. There are a couple of barracks not far from the airfield. The control tower is adjacent to the city square, which is also the main entrance to the landing field. The tower is their command post, and that's where Putnam stays. A few blocks from the central city square is the communications center."

"Good summary, Starman," said Stavri. "And besides these places, there are always a lot of them on patrol throughout the city, in constant contact with their headquarters through the communication network. Within minutes, everyone in any leadership position knows what's going on, and where."

"And," Zip said, sitting up a little straighter with his eyes aglow and a hint of amusement at the corners of his mouth, "that's their weakness."

"What do you mean?" queried Joe.

Zip smiled a little. "Each one of these systems depends on communications. Putnam has to talk to the men on the ground, to the spaceships, to the forces on the laser banks, to the bunkers

where the missiles are kept. These are not independent systems, and if the various outlying patrols had no way to talk to each other they would be ineffective. These systems rely on a central communications hub—a router of sorts.”

“Right, Starman,” assented Stavri. “These pirates haven’t permitted any independent communications since the hour they landed. All communication between patrols depends on the central hub that routs the calls. All the systems are connected via fiber optic transmission lines to the central router.”

“Bring up this communications center on the screen,” suggested Mark.

“My thoughts exactly,” said Zip as he brought up the image.

Steve spoke up. “Now this Captain Troy Putnam fellow may think that the sun comes up just to hear him crow, but don’t you think that he’s figured out by now that that communication center’s kind of important to his staying in business?”

“That point’s not been lost on Putnam,” said Zip. “He is guarding it well, but if we can find a way to take it out, that could give our fleet the advantage they need.”

“Okay,” urged Steve. “Let’s find a weakness. Let’s find several weaknesses, and pick the best one.”

Time passed. They had assumed that a course of action would become evident quickly, but each plan someone proposed had a major flaw, and was discarded. Steve, the Starmen, and the Titanians went through file after file, looking for a weak spot in the many sophisticated defenses in the communications center that they could take advantage of with the resources and opportunities they had. Occasionally Stavri was consulted for his opinion. When no practical plan became evident they even began to consider other sites, such as the main command center. Still, no workable plan developed.

The files that Space Command had provided were detailed and complete, but the eagerness with which the Starmen began their investigation waned rapidly. Mark, Joe, and Steve made numerous suggestions on the basis of the orientation they had had in Amundsen City, but either Stavri or Zip were able to point

out a flaw each time.

“Blast it!” shot Joe impatiently after Zip had undercut his fifth plan of the day. “I thought those guys at Space Command had this operation pretty well sewn up! They seemed pretty confident when they were showing us these files!”

“Nothing like being here among the rock and rubble to show you what’s real, Starman,” said Stavri, who had stopped in for a moment to check on their progress. “But don’t get discouraged. You’ve got the right information we need on these disks here somewhere, and we’ll learn how to use it in time.”

“Thanks, Stavri,” sighed Joe. Mark was intent on the operations diagrams for reconobots, but he took his eyes off the screen for a moment and glanced over at his partner sympathetically. Even Jack and Jill were showing signs of fatigue.

Stavri stood up. “I’ll ask Marjie to bring you some coffee, cheese, and fruit.”

Joe leaned forward again and concentrated on the screen. When the coffee came, he barely noticed it. Steve downed his in two gulps, and then picked up an apple and took a bite out of it that was almost big enough to take the core out. The afternoon passed into the evening, and Marjie kept their mugs filled until she retired for the night.

In the middle of the following morning, when all were bleary-eyed and drooping with discouragement, Zip suddenly breathed in sharply, and then cried out, “I’ve got it! I know what we can do!”

“What have you got, Zip?” asked Mark, the weariness in his eyes showing that it would take an effort to convince him.

“Listen!” He gathered the others around him. “We’ve checked out the air system, the water system, the tunnels, their food supply, and the computer network. Either we can’t get where we need to, or we can’t do enough damage to cripple the pirates’ defensive capabilities.”

“Right,” agreed Joe.

“We know that we need to effect a single blow that will



bring the pirates' whole system down. It always comes back to the communications. Although there are several hundred pirates, they are still spread thinly across the city. Without instant communications they can be picked off patrol by patrol. We need to get into the communications center in the tower and sabotage it."

"Maybe I'm dense, maybe I'm hallucinating, but didn't we spend about *seven hours* on that very possibility yesterday?" said Steve, "There's just no way we can get in there. It's too closely guarded and there's no tunnel entrance."

"I know, I know. We spent hours examining every inch of the floor plan and wiring diagrams in there. But listen," said Zip, with animation. "We can't get to it because it's guarded day and night by men and by the reconobots. So we create a diversion that draws out a reconobot. Then we capture it, reprogram it, send it back to the communications center, and then use it to reprogram the other 'bots and use them to disable the pirates. Nobody's ever been able capture and reprogram a reconobot before. They'll never suspect it."

There was a moment of skeptical silence, but no objection.

"Okay... As you say, nobody's ever done that before. So how do *we* capture a reconobot?" asked Mark gently.

"We can't," nodded Zip. "But Jack and Jill can."

~

All the Tunnel People came to the dinner that night. Zip had doffed his characteristic red uniform and wore the clothes of an ordinary inhabitant of Eagle City. Dinner was a festive occasion. Marjie and Richard Prester, assisted by other Tunnel People, cooked and served a modest and wholesome repast.

The great boast of the feast was four loaves of freshly-baked, truly leavened bread that Marjie had prepared, kneading the dough by hand and watching the lumps carefully as they rose, and then baking the loaves with a keen eye for timing. Leavened bread was scarce on Mars, for the climatic conditions altered the

sensitive chemistry necessary for good bread. More loaves were discarded than were eaten, and few people, even the best chefs, made the attempt any more. The Martian population had become accustomed to unleavened bread.

But tonight, each of Marjie's loaves was a gratifying testimony to her culinary skills. She was a bustling yet peace-filled, middle-aged woman, with a radiant smile and an abundant good nature. Her inner beauty emerged whenever she had an opportunity to encourage and support others, and the occasion in which she produced the bread was one of her best such moments. She came triumphantly forth from the kitchen carrying a tray of four perfectly baked loaves, their aroma rising as the fitting complement to her blushing cheeks and sparkling eyes.

To celebrate the success of the bread-baking, Stavri Thalassa served the community's very best golden wine. Two bottles of coveted Marin Asta wine had been included in a large shipment of liquor to the *Lizard's Watering Hole* about five years before.

Kindly Donal McTaggart had said, "Ach, Stavri! Must be some mistake in the shipment. Few of the clientele I usually have the honor of serving have the palates to appreciate such quality wine as this. You taye it and sayve it for a grand occasion!"

Stavri addressed the assembled group and, prodded to keep his speech short by the heavenly smell of the warm bread, told the story of the fine wine and concluded by saying, "And certainly this is such a grand occasion. Soon we go out to do battle, and we will come back victors!"

The following day, careful preparations were made. The Starmen conferred with Stavri Thalassa and laid plans with Jack and Jill and the hardiest of the Tunnel People. They checked weapons, cleaned them and made such repairs as were necessary.

Zip and two of the Tunnel People made slingshots and spent the afternoon practicing with them. The Tunnel People got used to hearing the snap of thick elastic bands releasing projectiles, followed almost at once by the noise of powerful impacts.

"Oh, my arm aches," moaned the redheaded Starman as they all sat down to dinner that night. "I must have pulled on that

contraption for hours today.”

“You looked pretty good to me, Zip,” said Mark as he spooned some steaming vegetable soup toward his mouth.

“Not good enough, not good enough,” Zip said. “But it’ll have to do. Time is short. And my arm can’t take any more practice.”

Some time later, when only a few hours remained before the dawn of the day that the fleet from Earth was due to arrive, a group of nearly fifty moved in silence out of the great hall, back toward the city center. The high quality gray and red stone blocks of the inhabited area of the tunnels, lit with soft lights, changed within a quarter mile to the dark brown of musty earth. The men turned on the artificial lights they carried and went on into the darkness, their shadows leaping as they walked.

## Chapter 17: Zip Miscalculates Badly

STARMAN DAVID FOSTER and about a dozen of the Tunnel People sat in utter silence in the front room of an old building. They were at street level in front of a large, grimy window, but no lights were on in the building. Motionless as statues, they were enveloped in inky darkness, barely relieved in places by shades of charcoal gray. The sound of breathing and the occasional rustle of clothing were the only noises.

One distant street light could be seen on a corner two blocks away. A pair of guards appeared briefly under the light. After the guards had passed out of sight, Zip whispered, “Let’s go.”

They had selected this building because it was a warehouse for long-term storage items, was rarely visited, and had a tunnel access. The pirates’ patrols came by on a predictable basis, but never gave the building much notice.

At Zip’s words, the men poured silently out of the building and broke into three groups. One went straight ahead toward the street light, and the other two, one led by Uneven Stephen and

the other by Stavri Thalassa, moved to the two opposite sides and vanished in the darkness, heading toward neighboring streets.

Zip carefully counted out precisely three minutes, and then withdrew his slingshot with its thick, strong, elastic band stretched across the top of the Y. Zip had made the slingshot to put out the street light, since it had no electronic parts. He considered that the pirates might be monitoring electronic activity in the area, and knew that if a laser weapon were activated it would immediately alert a large number of pirates to his presence. Using the slingshot might give them nearly a minute's advantage over the pirates.

He held the instrument in one hand, and with his other placed a smooth stone a little smaller than an egg into the band. Intently, he lifted his gaze to the street lamp about fifteen yards away, raised the instrument, pulled back the band and released it. The stone zipped out of the mouth of the Y and whooshed by the light, missing it by inches. It kept going into the darkness.

Several seconds later, Zip and his companions heard a faint thud from several blocks away. However, Zip had already placed another stone into the band and drawn it back almost to the right corner of his mouth as he held his left hand outstretched in front of him. Again, he let fly. Again, he missed the light, but the stone struck the metal support of the lamp with a loud clang.

"Blast!" snorted Zip quietly, loading another stone. Quickly he took aim again and released the band. The sound of shattered glass punctuated the night with satisfying thoroughness, and the street lamp went out. In the resulting sudden darkness, the falling shards of glass sounded like frozen rain.

There was a yell from somewhere down the street. Within seconds, two other nearby streetlights were extinguished. The yell was repeated, and then echoed by others.

Zip and the Tunnel People melted into alleyways and buildings. Quickly about a dozen pirates descended onto the scene but found no one.

"They can't be far! There's no place to go but into the

buildings!” yelled the Patrol Leader of the pirate guards. “Find them! Mack, Speed, you take a group of men and search the buildings.”

“Yes, sir!” The two men designated each took five or six men and set out to find whoever had put the lights out.

The Patrol Leader activated his radio. “Patrol Leader James Huss in Sector Y8 calling Headquarters,” he said.

“Headquarters,” came through the speaker immediately. “Go ahead.”

“Reporting to Captain Putnam that an organized attempt at rebellion from the populace is taking place. There are more men than we can handle. Request immediate assistance.”

“*Assistance coming at once!*” came a fierce, angry voice. “This is Captain Putnam! You will have a hundred men as soon as we can get them there! Don’t let any of these rebels escape!”

“*Yes sir!*” responded Huss, involuntarily snapping to attention as he spoke into the radio.

Putnam was taking no chances. With the fleet from Earth in close proximity, he didn’t want any distractions whatever from the battle to come. Ban Zou Men was watching every moment, every action. He, Troy Putnam, would be decisive, powerful, effective. Here now, at last, was a chance to squash the opposition completely. Victory was within his grasp.

As each patrol entered a street or an alley, a few of the Tunnel People jumped out of a doorway or from behind a discarded crate near the end of the alley, fired a few laser shots intended merely to discourage hasty pursuit, and then disappeared through a window or around a corner.

Some used the makeshift slingshots that the Tunnel People had made. In addition to being invisible to electronic surveillance, the unusual weapon was intended to demoralize the pirates; laser shields couldn’t stop flying stones.

After the Tunnel People had made their escape, they intended to double back so as not to move very far from their point of origin. They were hoping that a reconobot would be sent after them. The Titanians were ready to capture it.

Within seconds men began to pour into the street, running at top speed from other nearby areas of the city. At first there were a few patrols, then there were dozens of men, and before five minutes had elapsed, there were nearly a hundred pirates, each armed and determined. They had been made fools of more than once by one Starman and they were not about to be fooled again.

“Where is Patrol Leader Huss?” roared a commanding voice.

“Here, sir!”

“You know me! Lurton Zimbardo, acting under the direct authority of the Captain. Bring me up to date!” Before Huss could respond, Zimbardo addressed the crowd: “You men make a cordon around the area, several blocks in every direction. Search every building and bring the rebels back to this area.”

As the pirates fanned out, David began to worry. He hadn’t counted on so massive a response from the pirates. He and a few Tunnel People had already returned to the building next to the street light he had shot out. The others were still unaccounted for but presumably also on their way back. They’d find it hard to get back undetected now, and there was still no sign of reconobots.

The pirates were already tightening their cordon. The Tunnel People were drifting in to where Zip was.

Uneven Stephen spoke up in the dimness. “Starman, we haven’t seen any reconobots yet and there are way too many men for us to fight. We’d better retreat.”

“We would if we could, Stephen. But there’s no tunnel access in this building.”

“We’ll have to cross the alley to the other warehouse where we came in. The longer we wait, the more certainly we’ll be trapped here.”

Zip was thinking furiously. “The pirates are bound to find the tunnel if we do that. I’m afraid most of us are about to be captured. Let’s make a break for it and scatter in all directions. Stavri, you just make sure that you get back to the warehouse and get to the tunnel. Go warn the others. The pirates don’t even know about Joe, Mark, and Steve. You and they will have to complete the assignment.”

He turned to Jack and Jill. "Sorry, friends," he said. "It wasn't a very good idea to begin with, but I think it was the best we had. Better get into the shoulder pack and be ready for some fast action."

"Okay, David." The Titanians climbed into the pack.

Outside, Zimbardo and his men had corralled the Tunnel People into one structure, which they had surrounded. It was the darkest area of the building complex.

"Mack! Anyone get by you?" James Huss barked into his radio.

"No sir!" responded Mack crisply. "Saw about eight rebels but drove them into Building F."

"Speed?" the Patrol Leader barked again.

"Same here, sir! No one got by us. They're all in the building."

"All right then! Get the reconobots!" ordered their leader.

Two reconobots were brought to the pirate leader, from where they had been on patrol several blocks away in the more populated areas of the city.

Huss fired a couple of magnesium flares to illuminate the sky. They went high, ignited into a cold, bright white light, and hung below extremely lightweight small parachutes. Almost too slowly to notice, they dropped incrementally toward the ground. They would stay useful for about five minutes.

Zip's heart sank even further when he saw the flares. "That'll make our escape even less likely. Stavri, you've just got to succeed. Everyone ready? Then let's go!"

Outside, Lurton Zimbardo gave the order. "Dispatch the 'bots!" One of the men directed the machines down the alleys by remote control, and then pressed the button that activated their general search mode.

Just then, Zip and his companions burst forth from the building, firing lasers in all directions and scattering like leaves before a strong breeze. Stones from slingshots flew into the darkness with a sound like large hornets.

"Stop them!" shouted Zimbardo. At the sudden, unexpected

outburst, the pirates hesitated only for a second and then retaliated with laser beams of their own. Uneven Stephen screamed as he ran and fired, turning in all directions. Others joined him, hoping to cover Stavri's dash to the tunnel access.

With daring eagerness, Stavri plunged through the open door of the warehouse without being hit, and shot through into the darkness. In the gloom he misstepped and fell headlong into the shadows. He felt a sudden pain, but got to his feet without stopping to check for injuries and surged ahead toward the corridor across the room. At its other end was the entrance to the tunnel that would take him to safety and help.

Four pirates hurtled through the door after him as he reached the corridor.

"Stop!" shouted the one in front. Stavri kept moving, but slower and slower. The pirates pursued him, reaching the corridor just as Stavri came to its end. Two laser beams lanced out. Stavri had injured his ankle seriously with his fall and now collapsed, unable to run any farther. The laser beams passed over him and savaged the wall beyond.

Stavri Thalassa looked up from where he lay and saw a gaping hole in the wall that concealed the entrance to the tunnels. The edges of the hole were smoking, and the scent of moist earth came sweetly out of the aperture.

*Oh, no!* thought Stavri, and then the pirates were on him.

~

"Control tower intact, sir," reported the technician at the bridge. "Fuel depot destroyed, looks like some time ago. Signs of repair, but far from completion. It is about 4:20 a.m., Eagle City time. Barracks in Sector H recently burned."

The technician was scanning the area of Eagle City from a high-powered reconnaissance telescope that produced its image on a large screen in the bridge of the flagship *St. George* of the Earth fleet. Commander Quentin De Koven stood behind the technician and was looking over his shoulder as he made the



report.

“Thank you, ensign,” said the Commander. A moment later, in his office, he was in closed, encrypted radio contact with Commander Lewis. In less than an hour they would come within firing range of Eagle City. If all went well, the first ships could land within an hour and a half.

Commander De Koven provided the facts of the most recent report on the status of Eagle City, and added that there had still been no contact with the Starmen since their arrival on Mars.

“But it appears that the Starmen have had some success against the pirates,” he added. “Or someone has.” He sent the message and waited fifteen minutes for the reply.

“With the destruction of the fuel plant, the first assignment has been achieved,” reasoned Commander Lewis. “Attack when you are ready.”

“Very well,” affirmed Commander De Koven. “We will launch a blitz attack against the pirates. It looks as if there will be no new information forthcoming, so there is no need to wait. As soon as we are within range, we will take charge.”

Captain Troy Putnam was standing in the control tower, looking out a window toward the falling magnesium flares and holding a portable radio in his hand. It seemed to those around him that he never slept. He tried to keep tabs personally on everything that was happening and insisted on frequent detailed reports from all subordinates.

“Sir, we have captured all rebels with reconobots,” came the voice of Lurton Zimbardo over the radio. “All have been fully subdued.”

“Fine work, Mr. Zimbardo! I am very pleased!”

“The leader appears to have been the Starman, sir. He is now in our custody.”

Putnam felt a surge of elation shoot through him, more powerful than a shot of adrenaline. He knew that Ban Zou Men would hear and know. He had pulled the situation away from the brink of disaster! Victory would be his before noon!

“What would you like us to do with them, sir?”

“Bring them to the compound closest to the control tower! I will have them questioned!”

“Yes, sir. And sir?”

“Go on.”

“We have discovered an entrance into a system of tunnels that apparently connects various sections of the city. It is likely that this is how the rebels were able to effect their sabotage.”

Captain Putnam’s eyes glowed. “Excellent, Lurton! Oh, excellent! Use the reconobots to bring in the captives, and take the large force of men you’ve got and ransack the tunnels. Bring out anyone you find.”

“Captain Putnam,” cried out a technician in the control tower in Eagle City. “The Earth fleet is about an hour away.”

Captain Putnam jerked his head around and ran to the screen.

“Prepare the defense lasers!” he shouted. “Put the Gray Fleet on highest alert! Final victory is at hand, and I won’t have it taken from me now!”

“Yes sir!”

The alarm went out.

Zip and the Tunnel People lay immobile in the alley between the warehouses. The magnesium flares had faded, and the predawn darkness covered the ignominy of the Starman’s defeat. Two reconobots stood guard over the fallen men.

Lurton Zimbardo walked up to the nearest body. He inhaled quickly, and then exhaled loudly. “Get ’em up,” he ordered, giving the fallen prisoner a mild kick.

“Get up!” shouted one of the pirates. Only about five of them remained in the alley. At Captain Putnam’s command, Patrol Leader James Huss and about seventy-five pirates had gleefully poured into the tunnel entrance opened up by the laser shots fired at Stavri Thalassa.

Zip and his partners slowly stood on their feet, paying no attention as their weapons dropped to the pavement.

“You two men,” said Zimbardo, indicating two of the pirates, “come with me. We’ll take these rebels to the prison compound nearest the tower. The rest of you keep watch here until the

others come out of the tunnels.”

Zimbardo went up to Zip, looked him in the face, and then suddenly slapped him hard. Although Zip could see the movement, his reactions were far too slow to stop it. His head snapped to one side, then moved slowly back to center, his cheek flaming red but his eyes still glazed.

“They’re punched, all right,” said the pirate leader. “Let’s get going.”

The man gave Zip a hard push. “Move!” he said. Zip stumbled but stayed on his feet, swayed a little, and then began to walk down the alley. His companions followed, all walking very slowly as if nearly asleep.

Zimbardo and the reconobots led the line of prisoners down the alley. Two pirates followed up at the rear of the line. Zip and the Tunnel People shuffled along slowly, their heads bobbing gently from side to side, their mouths slack, their arms hanging loosely.

~

Joe, Mark, and Steve were waiting in a large confluence of several tunnels a few hundred yards from where Zip and his men had ascended to the warehouse. About forty Tunnel People were with them. After Zip returned with a report of the success of his mission, Joe was to make contact with Jack and Jill and track the progress of the disabling of the pirates’ communication system. When that goal had been achieved, the Starmen would enter the city from three different places and take control.

“Here they come,” said Joe. The sound of many feet was coming down the tunnel.

“No lights,” observed Mark. “Maybe something’s wrong.”

The light from the gathering area shone into the tunnel from which the sound was coming. Suddenly into the light came, not a man, but a squat metal robot.

“It’s a reconobot!” shouted one of the Tunnel People.

The robot paused at the end of the tunnel, and then turned to enter the confluence. Joe fired his laser pistol as it crossed the

threshold. The beam spread into a shower of diffused red light. Two others fired their laser pistols a moment later, but their beams likewise scattered harmlessly, momentarily lighting up the tunnel wall. In the dark shaft behind, the pirate leader James Huss grinned in satisfaction. He could hear the bodies fall as the reconobot activated its paralyzing beam.

~

Outside, the eastern sky was showing just a pale glow. Dawn was still over an hour away. A group of over a hundred men was marching slowly down an alley and into the main thoroughfare. Most were armed, but showing no signs of vigilance. They chattered gladly, sometimes making jokes at the expense of the few in the middle of the group.

A line of men with glazed eyes and loose joints shuffled forward. They were being taken to the compound near the tower. James Huss was reporting by radio.

“—captured them all, sir. The reconobot did all the work. No casualties. Forty-two prisoners. We should have them at the compound in less than ten minutes.”

Troy Putnam answered. “Good work, Mr. Huss! Very good work! Leave the prisoners in the custody of the reconobots and ten men. Take the rest of your men and return to the tunnels. Search them thoroughly. These men you have captured must have some kind of headquarters or central organization. Find it! Rout it out!”

“Yes sir!” Huss gave the orders, and the group divided into two parts. The greater returned to the tunnels and disappeared into the dark shaft and the maze below. The others went on toward the prisoners’ compound. Before too long, the three Starmen, Steve, and the strongest fighters among the Tunnel People were prisoners together, lying flat on the ground under the watchful, sleepless guard of the reconobots.

## Chapter 18: The Hubris of Technology

WHEN ZIP HAD FALLEN in the alley, Jack and Jill had leaped out of the shoulder pack. They huddled underneath the folds of Zip's coat and peeked out on the action. The reconobot that had felled the Tunnel People rolled by slowly.

A pirate came to the door of the warehouse across the alley.

"Sir!" he shouted. "Mr. Zimbardo! Come quickly! A passage! We've found a secret passage!"

Lurton Zimbardo ran to the door, followed by James Huss and a few others. All the pirates watched the action. The fallen Tunnel People in the alley were no longer a threat.

Jack leaped onto the reconobot. In seconds he had found and opened the access door. He motioned to Jill and she joined him. Both the Titanians entered the reconobot and closed the door behind them.

Inside the reconobot Jack turned on a tiny light, which allowed him to see what he was doing. He worked quickly but thoroughly, taking no notice of what was happening or where they were going. But line by line, file by file, program by program, he altered the reconobot's programming, leaving no trace of his work.

Gradually, by moving along the signal coming into the reconobot, he inveigled his way into the master computer network in the tower. Having established his access, he waited for an opportune time to take over control of the reconobot. In the meantime, by listening in, he and Jill tracked the events of the remainder of the dark hour.

A few minutes before dawn the opportune time arrived. Most of the pirates assigned to the area closest to the tower were in the tunnels. A few remained on guard in the prisoners' compound, but most of the watch on the captives was being done by the reconobots. Jack took charge of the reconobot in which he was concealed and then extended his control through the main computer system and disabled all of the other reconobots. The prisoners were now free from the paralyzing influence of their

electronic captors.

They all felt themselves returning to normal at the same time. They had no plan, but Zip set the pattern for the others. As soon as the pirate nearest him had turned away, Zip leaped to his feet and tackled him silently. The other former captives likewise jumped up and disabled the remaining pirates.

Jack and Jill emerged from the reconobot.

"Jack! Jill! You've saved us!" said Zip. Quickly Jack explained what he had done.

"Fine! Fine!" Zip's mind raced. "Jill! You take this 'bot and go crash the communications center. Fast as you can! Jack, you come with us to the pirates' command post in the tower. With your help, we'll take control of it and put an end to Troy Putnam's attempt to take over Mars."

Jill entered another reconobot and took off to the place Zip had indicated. Her reconobot had been programmed to make a random check of hiding places within a specified area, and to send out an alarm if it located any intruder.

Within five minutes she had come into the proximity of the major communications center, three blocks from the tower. About a half dozen men stood guard around the main entrance, with as many again just inside the foyer. Jill's reconobot glided up the street in front of the center, apparently on a patrol.

"What's that reconobot doing here?" asked one man. "They don't usually patrol this sector, do they?" His neighbor shrugged his shoulders. It was his last voluntary action for some time. The robot's sensors suddenly turned and faced the front of the building and let loose a high powered paralyzing frequency. The men in front of the building and those in the front room dropped senseless.

Jill quickly directed the reconobot to enter the building and passed through the lower story, disabling all she met. She went to the heart of the communications center and disrupted all communications between the various patrols and centers. The main data stream to the command post, however, she maintained. Editing randomly-selected messages that had been posted

previously, she gave the command post the impression that all was well. It would not deceive them for long, but it would give Jack several minutes to accomplish his assignment.

~

The pirates throughout the rest of Eagle City had been keeping tabs on the events of the central area. Exultant over the capture of the Tunnel People, they were thrown into disarray when the communications system failed. A flurry of reports and requests for assistance came into the master computer terminal. All were quietly stored in the circuitry, and none of them registered on the communicators. The technicians in the pirates' headquarters had no inkling of anything out of the ordinary. Jill was fulfilling her task.

As soon as the messages came in, however, Jill sent a message to all parts of the city, promising that help would be coming soon. She added that a large force of rebels had attacked the communications center and disabled it. She embellished the report by warning the pirates that some rebels were wearing pirates' uniforms and were trying to infiltrate sections of the city that were forbidden to ordinary citizens.

Many of the freed Tunnel People, now armed with weapons they had found in the barracks near the prisoners' compound, added to the confusion by sniping from rooftops and through windows of abandoned buildings. They never stayed in one place for long and rarely shot twice from the same position. This made it nearly impossible for them to be detected and created the impression that their number was much larger than it was.

For safety, Captain Putnam and his primary assistants were in an inner room without windows. Their technicians spent most of their time watching their computer screens. Because of their confidence in high technology, they rarely stepped into the control center to look out the windows to see what was really happening. Their control over the city was rapidly unraveling, and they were completely unaware of it.

Realizing that the Earth fleet was in final approach to Martian airspace, Troy Putnam confidently gave the command. "Gray Fleet, lift off and engage these invaders in battle!" His eyes sparkling with satisfaction as he closed communications, he knew he had sufficient fuel in his warcraft to defend against the Earth ships at such close quarters. His battlecraft outnumbered and outgunned whatever Earth could have mustered in their slapdash attempt to regain supremacy on Mars. With a jaunty lopsided smile, the pirate captain imagined for a moment how Ban Zou Men would approve! He had no idea that Jill had prevented his command from reaching any of the pirates. He would wait in vain for the roar of his warcraft departing the planet en masse.

Still, the battle for control of Eagle City was far from over.

Standing in front of the main entrance to the control tower was a huge man named Wynn Sturgess. He was in charge of the main guard at the entrance to the control tower. Wynn Sturgess looked like a man of iron, weighing about 280 pounds and standing well over six feet. He'd been an asteroid miner in charge of a small company. To keep in shape in the negligible gravity of his environment, he took vitamins and exercised fanatically. His massive size was mostly muscle. Although personally selected by Troy Putnam mostly because of his size, he was also markedly capable.

There were twenty men under him, responsible for the security of the tower. When Zip and his men had shown the first sign of organized rebellion, Wynn had called to his guards, wakening most of them from a sound sleep. They had surrounded the tower and were alert for any sign of trouble. Some were posted in the stairwells inside.

Reconobots patrolled the streets in the vicinity of headquarters. The light of the magnesium flares was dimly visible several blocks away. The shouts of confused men came from distant quarters, and the occasional light of power lasers speared the night from the direction of the airfield behind the tower. Wynn was uncomfortable, but having no orders from



headquarters, he just increased his vigilance.

~

“We’ve got to take the tower next,” said Zip to Joe. Mark and Steve Cliff had taken most of the Tunnel People into the city to harass the pirates. Joe, Uneven Stephen, and a few other Tunnel People had remained.

“Here’s my plan.”

“Let’s hope it’s better than the last one,” said Joe.

“No time to plan in detail, but this should do it. Two of us will wear uniforms that identify us as pirates. Jack in the reconobot will go with us to the tower, apparently holding the rest of you captive. That masquerade should get us to the tower. Jack will then disable the pirates inside, and we’ll be able to take the tower, if all goes well.” He continued to explain the plan in greater detail.

“Good plan, Zip,” said Joe. “Should work fine.”

“Let’s go,” said Zip to the others. He and another who were about the same size as the men they had overcome took the pirates’ outer clothing and weapons. They lined up the remaining Tunnel People, including Stephen, and with little delay made what appeared to be a line of captives. With Zip in charge they moved toward the tower, accompanied by the reconobot with its small stowaway.

In a short time, the procession rounded the corner and entered the main square in front of the tower. Wynn Sturgess’ eyes narrowed when he saw them. When the procession approached the tower he ordered them to stop.

“Where are you going?” he roared.

“Captain Putnam wants to question these prisoners,” answered Zip. “He ordered me to bring them here.”

“You’re lying!” shouted Wynn Sturgess, whipping his power laser rifle into position. “The Captain would not order any prisoners brought to this place! Don’t move or we’ll fry you where you stand!” He called out to a half dozen guards who were

keeping watch nearby, and ordered them to surround the prisoners.

*Just what we want*, thought Zip with an inward grin of satisfaction.

Holding his weapon with one hand, Wynn raised the radio to his lips with the other. "Sturgess to tower. Come in." There was no answer. At first he was confused, and repeated the call. When there was still no answer, he became alarmed.

"What's the problem, Jack?" asked Zip. That was Jack's cue. He had taken the time during the confrontation to lock onto the seven pirate guards. When Zip said the name "Jack," he activated the paralyzing frequency. The seven dropped. The former captives grabbed their weapons and ran for the tower. Jack sped along with them in the reconobot.

Zip, Joe, and their men entered the tower at the main entrance, ready to capture anyone who came out that way. Zip and a few of them stayed in the foyer out of sight, guarding the door from any pirates who might try to enter. Jack went ahead into the tower precincts at a normal reconobot cruising pace. Led by Joe, the others followed a moment later, intending to give Jack time to disable the guards inside before they entered.

"What is that robot doing in here?" exclaimed one of the guards inside. "We need all the reconobots on the streets. Take it back outside." One of the other guards moved to the robot. When he touched it, he slumped over limp and unconscious.

"What—?" cried the guard. But at that moment Jack released all of the reconobot's weaponry and every human within the corridor fell senseless to the floor.

Jack then went into the next room and effected the same action. Room by room he toured the building. Everywhere he went, the inhabitants dropped unconscious.

Soon, the remaining guards outside were protecting a building inhabited only by silent and unwitting men, except for the topmost floor. That was occupied by the leaders, who were in the inner room still unaware of the situation. The technicians had their eyes fixed on their bright, uncomplaining computer screens.

After Jack had neutralized the lower two floors, Joe and a half dozen Tunnel People hastened toward the top floor of the tower. Joe wanted to make the arrest of Troy Putnam personally. He ran up to the topmost room, followed by the crowd of armed Tunnel People, burst into it, and ordered all of the technicians to raise their hands and step away from their consoles.

Mike, who had supervised the landing of the pirates two and a half weeks earlier, wore an expression of rank disbelief. This time, it was someone else in control, with the lasers to back up the claim. His eyes shot from one corner to another, but there was no escape.

~

In the street below, a huge hulk of a man was stumbling to his feet. The force of the paralyzing frequency that had felled his partners gave a good blow to Wynn Sturgess, but it did not render him unconscious. Zip and his companions had their backs to the street, waiting for Joe and his men to greet them and allow them access to the inner workings of the tower.

Wynn was furious. Silently, he began to move like a bull toward the door of the tower.

## Chapter 19: Mop Up

WITH HIS ARMS spread wide, Wynn Sturgess plowed into the group of Tunnel People from behind, knocking most of them flat and piling them up on one another like firewood. Roaring, he threw two men to one side in his rush to get to Zip, whom he blamed for his failure to protect the tower from incursion.

At the first sound Zip began to turn his head, but the impact knocked him forward several feet. He skidded on his side, sliding on his right ear. His index finger was wrapped around the trigger of his weapon. When he landed, his finger slammed into the hard floor and was crushed. His gun went off, letting loose a blast of red ferocity into the wall.

As he saw Wynn reaching for him, his face distorted with uncontrolled fury, Zip quickly got onto all fours and then released a powerful kick with his right leg, straight back toward Wynn's face.

Wynn saw the kick coming and shielded his face with spread hands, absorbing the blow. He threw Zip's leg aside and picked him up by the waist, turned him so that Zip faced him, and placed the Starman none too gently on the ground.

"You squeaking little cellar rat!" the pirate bellowed. "I'll knock your head into orbit!" He reached back an enormous fist and prepared to let fly.

An equally large hand took hold of Wynn's fist while it was cocked and pulled him back off balance. Wynn let go of Zip and fought to stay on his feet as he was propelled into the center of the room. Zip stumbled back two steps, dazed.

"I've been put under by that paralyzing beam for a little while myself," said a calm voice. "You're not quite yourself yet. I'll give you a minute—even two, if you think you need it—to rest up before I show you who's in charge of the tower now."

It was Uneven Stephen. He stood calmly and confidently, facing Wynn Sturgess. The other Tunnel People were all on their feet now, but not one of them even thought of raising a weapon.

Wynn was taken aback, but didn't stay confused long. He glared at Stephen, made two fists, and yelled, "I don't need any rest!" He leaped at Stephen.

He was quicker than Stephen had guessed. Wynn's left fist crashed past Stephen's guard and struck him squarely on the right cheek, snapping his head to the left. The right fist came an instant later, but Stephen's left arm shot up and deflected the blow so that it only glanced by his crown.

Stephen reached under Wynn's arms for his broad chest with both hands spread and pushed hard. The pirate's momentum was checked, and with a powerful thrust Stephen drove him away. Wynn back-pedaled again to keep from sprawling. The two men faced each other. Stephen's cheek was bright red, and a smear of blood came out of the corner of his mouth. But his eyes were

bright and unblinking, focused directly on Wynn's eyes.

Stephen charged without warning, feinted with his right fist to draw Wynn's arm toward him. Then Stephen's left fist crashed against Wynn's jaw, followed up directly by his unstoppable right fist to his sternum. The strength of many years of striking the chisel to carve hard stone was behind the blow. Wynn flew out the door, airborne for a few feet. His heels struck the top of the steps as gravity took over once again, and he pitched over into the street, finally coming to rest spread-eagled and face down. His final position was comfortable enough for the nap he would enjoy for a little while to come.

~

Joe whipped open the door to the inner sanctum. Troy Putnam was inside, seated at a long table with four other uniformed men. A computer technician was at one end of the table, working at a small keyboard. All six looked up with amazement on their faces. Their mouths dropped open.

"You are under arrest," announced Joe, with a laser pistol in each hand. A small crowd of Tunnel People was close behind him, weapons drawn. Troy Putnam turned gray. He emitted a faint cry, clutched his head, and then fell to the floor, moaning piteously.

"I don't have to tell you to keep close watch on these," Joe said to his companions. "There's still work to be done."

Leaving Putnam and his crew in the custody of the six Tunnel People, Joe went back into the next room and approached the master console.

"Okay, Jill. We've got it," he said.

"You in control now, Joe," came the Titanian's small, whispery voice through the communications system. "I now restoring communication system."

Joe punched in the frequency for the Earth fleet.

In space, not far away the three hundred Earth ships were speeding into Martian airspace. The signal, long-hoped for but

almost despaired of, was coming through at last.

“Starman Joe Taylor calling from Eagle City to Earth fleet. The tower is in the possession of loyalists. The pirate leader Troy Putnam has been captured. All but a few pirate ships are grounded. A few ships may have lifted off within the past few minutes and should be intercepted. We await your arrival as soon as possible. A lot of mopping up still needs to be done.”

~

“About time,” said Zip a few moments later, as the door opened into the foyer of the tower building. Joe stepped through, followed by a number of Tunnel People.

“What happened here?” he asked. He had noted the smoking slash in the wall, Zip’s cut finger, and Stephen’s blood-streaked face.

“Stephen decided to subdue one of the pirates the old-fashioned way,” said Zip. With his thumb, he indicated the street through the doorway.

Joe squinted a little and looked outside.

“Man!” he exclaimed.

“What’s going on?” asked Zip.

“We’re in charge of the city now,” announced Joe. “Jack and our men have gone outside and captured the last of the tower guards from behind—the one direction they never thought to check. From master control in the liberated building, Jill sent a message to all pirate communication centers that we have set mines in the rocket yard and no one is to enter that site until they can be cleared.”

“That should keep anyone from leaving,” said Zip with approval.

“She’s done more than that. After that message, she scrambled communications capability throughout the entire system. All reconobots are powerless, and all other electronic surveillance machinery is inoperable. So no one can talk to anyone else—except face-to-face,” announced Joe with a look of deep

pleasure, as if he had just successfully carried off a complicated joke.

~

It was an hour after sunrise when the Earth fleet became visible to the naked eye. The ships came in from the east, and their hulls sparkled in the light of the newly risen sun. Rank after rank, the ships roared in and landed outside the city limits, surrounding the city. Commander Quentin De Koven had ordered them to enter the city simultaneously from all directions, and to come through every entrance in great force. They were to search out the pirates and bring them to the central square in front of the tower.

As the Earth ships landed, Zip took possession of the tower. He called for the general communication channel and made an announcement to the citizens of Eagle City.

“This is Starman David Foster. The spacecraft now landing outside the city limits are the fleet from Earth. The pirate leaders have been captured and the city is now liberated. Please remain in your homes until the Earth forces have captured all pirates. An announcement will be made when it is safe to go outside.”

Nevertheless, after the announcement many people surged out of their homes in great numbers. The pirate guards, who shortly before had been well-organized patrols in constant communication, had suddenly become leaderless bands cut off from their headquarters and each other.

When the forces under Commander De Koven entered the city, rather than finding many pirates in hiding and offering armed resistance, they found large bands of citizens holding the pirates in custody.

Under the direction of the Starmen and several of the Tunnel People, the tunnels were scoured of pirates. Most of them had become hopelessly lost in the maze and welcomed their liberators.

Stavri Thalassa was treated for a badly sprained ankle. Among the victors, he was the only one whose exultation was not

complete, since he had missed most of the action.

By late morning most pirates had been brought to the square in front of the tower and made to sit on the ground in rows. A large number of De Koven's forces surrounded the square, keeping the pirates under conscientious guard. A number of residents of Eagle City walked among the captives, offering them something to eat and drink.

Toward the front of the crowd of huddled pirates, a large man sat, scowling. It was Wynn Sturgess. Now and then he raised his head, looked around, and saw the large number of pirates sitting silently. Then he returned his attention to the ground in front of him and shook his head.

~

Lurton Zimbardo had not been in the tower when Joe, Mark, and the Tunnel People had invaded it. Some time earlier, after the Starmen and Tunnel People had been captured and delivered to the prisoners' compound, he had begun a tour of the city to encourage the patrols that had not been a part of the action. The fall of the tower had caught him by surprise.

With the rush of citizens into the streets, he had gathered a few other pirates with him and waited until the first press of the crowd had passed. Then they ran for the nearest residence.

Two men came out of the house just as he approached it.

"Hey!" cried out the men as they saw the group of pirates coming. "What—?" But the pirates didn't stop. Zimbardo punched one man while another pirate punched the other. Before they could fall, the pirates picked them up and carried them back into their own house.

"Guard them!" Zimbardo ordered two of his companions, "and keep them quiet. The rest of you, find clothes!" The pirates searched through the house until they found clothes that could disguise them. They weren't all a good fit, but were good enough to pass a casual inspection.

"Tie them up and put them in the back part of the house," Zimbardo barked, "and then let's get out of here!" It didn't take



them long.

“Now separate and get to the *Unicorn's Well* inside an hour. Get to an upstairs room. I'll be waiting. When the going's good, we'll take the *Silver Spear* and get back to the Base. Whoever's not there on time can stay and make friends with the Earthmen.”

The *Unicorn's Well* was a restaurant and social center not far from the launching pad. It catered to passengers and service personnel connected with the airfield. Above the lower story were two floors with simple rooms for those who wanted to stay overnight between flights. Most of the rooms commanded a view of the city square in front of the tower as well as a partial view of the field.

“What about the mines in the airfield?” asked one of the pirates.

“There aren't any mines, leakhead! They spread that story to keep us away from the ships. An hour ago there were a hundred men out there. Did you hear any mines go off? Now get to the *Well* and don't waste any time!”

The disguised pirates slinked away from the house they had robbed. Some went left, some right, and a few crossed the street and moved a few doors down and then entered an alley. Two blocks away, troops under Commander De Koven were moving slowly toward the city center, driving captured pirates before them.

As Wynn Sturgess staggered to his feet with the marks of defeat on him, Lurton Zimbardo was peeking through the lattice of an upstairs window. He and his companions were waiting in a room over the *Unicorn's Well*.

“They're almost all in the square now. Let's go,” he announced.

The eight pirates went down the back stairs and through the service entrance. Shortly two of them approached the gate through which tractors and supply trucks entered the field. There were two guards.

“Stop!” ordered one, extending his hand, palm outward. “No one gets onto this field until all ships have been checked.”

“But I’ve gotta get out and check my koalangs,” said Zimbardo. “The pirates wouldn’t let me get out there for anything. They’ve died by now, sure.”

“Go to the main entrance and show your identification.”

“But my ship is right there. That’s a long walk to the main gate and back here for nothing. How about if I just show you my identification...” Zimbardo added, reaching in back of him. He pulled up a weapon and quickly fired, catching the guard without warning. The man dropped instantly. One of Zimbardo’s partners shot the other an instant later.

“Let’s go!” ordered Zimbardo. He and seven others ran to the *Silver Spear* and got on board. He pressed the emergency start procedure while the others were still finding their way around. In seconds, the ship blew off the planet’s surface and became a mere speck in the sky, disappearing rapidly.

## Chapter 20: The End of the Chase

THE ALARM came at the same instant the celebrating crowd noted that a ship had taken off in haste.

“—two men down at the equipment gate,” said the technician in the tower, reporting to Commander De Koven. “The pirate ship *Silver Spear* lifted off without authorization or notice, sir, and is traveling at breakneck speed. Size of the crew is unknown.”

“How did the ship elude our patrols?” asked the Commander sharply.

“The rebel ship used the emergency start procedure, sir, and launched with reckless speed! The pilot must have risked the lives of himself and his crew to have blown off the surface with such desperation!”

“Keep tracking them, crewman! We will pursue,” responded the fleet commander crisply. He signed off and then gave orders to several of the nearest ship captains to gather their crews and go after the departing pirate ship.

David Foster overheard the command and decided instantly to join the chase.

"Let's go!" he called out to Mark and Joe. "One last little job to do." He filled them in quickly as they were running to the airfield. Steve was on the edge of the crowd in deep conversation with an old friend from his earlier days on Mars. In his left hand was a plate piled with food; in his right was a tall glass.

"Hey! What's up?" he called out as he saw the Starmen running by.

"Pirate ship escaped," yelled Joe over his shoulder. "We're going after 'em!"

"I'm coming too!" Steve shouted after the disappearing trio. "Hey! Wait!" He threw down his food and charged after them.

At the gate to the airfield, the Starmen were admitted without hesitation. Seeing Steve lumbering along behind, Mark yelled, "He's with us! Let him through!"

Zip grabbed a transport vehicle and waited impatiently while Steve caught up. As soon as he got aboard, Zip pressed the accelerator and shot across the field to where his ship was parked. Steve's head whipped back as the vehicle took off.

"I hope they haven't done anything to my ship," Zip fretted. "Looks okay so far."

"Tell the tower we're leaving in a minute or so, Joe," commanded Zip. "No unnecessary delays!"

Joe took his communicator out and informed the tower of their plans. He called upon Starman's privilege to take precedence over other flights.

"That's your ship?" asked Joe. "Beautiful!"

"The *Star Ranger*," said Zip. "SE gave it to me for my first assignment. It's a beauty, all right. Wait'll you see the inside!" It was a dark red ship, almost brick-colored, slender and graceful. It could land either horizontally or vertically. In Eagle City, Zip had landed it vertically.

As they came within a hundred yards or so of the *Star Ranger*, Zip pointed an electronic wand at the ship and pressed a button. An infrared signal lowered a ladder and opened the outer

door of the airlock. The transport vehicle screeched to a stop just out of blast range, and the four jumped out and ran for the ladder.

Once inside, they strapped in and Zip initiated the emergency start procedure. In seconds, the *Star Ranger* had left Eagle Crater below.

“Get the information, Joe, so we can track the *Spear*,” ordered Zip.

Joe immediately contacted the tower and received the tracking signal for the *Silver Spear*, relayed directly to the *Star Ranger*’s computer. The Starmen functioned as a disciplined crew. There was no banter, no unnecessary words. Steve watched with admiration. There was nothing for him to do.

“Got it,” Joe announced, and filed the course into the ship’s navigational system. The *Star Ranger* sped into space on the trail of the *Silver Spear*.

~

Several days later, the Starmen were still on the chase.

“It’s the Asteroid Belt for sure,” said Joe. “They’re not going past it but into it. That’s certain now.”

The Starmen had been wondering where the pirate ship was going. There were no planets in the direction it was heading, and no artificial satellites either. The course lay across the Asteroid Belt, but there were no known centers of population in that sector of the Belt.

“Well, they’re not trying to evade us—just outrun us. They were only twenty minutes ahead of us at takeoff, but it’s a fast ship they’ve got. I’m astounded at the capability of that spacecraft! No one should have anything as fast as the best that Starlight Enterprise can make! They’ll still get to the Belt before we will, but we won’t be far behind!”

“We’re gradually, very gradually, closing the gap,” said Zip. “Unless they lose us in the Belt, we’ll get them. And the rest of the Earth forces are not far behind.” Ten ships from the Earth fleet had lifted off from Eagle City not long after the *Star Ranger*. They were not able to keep up, and were gradually

falling behind. Even so, they could be on site within a few hours.

"We oughta be able to see the *Silver Spear* at this point," said Steve. The four men were in the front of the control deck, straining through the window. The Asteroid Belt was visible to the naked eye. Dozens of odd-shaped rocks were clustered before their ship. Some were quite large.

"Thicker here 'n I would have guessed," observed Steve. "Could be dangerous going."

"This is a particularly dense part of the Belt," said Mark. "Almost nowhere else do we find it so full of rocks. These are undoubtedly fragments of one or two very large asteroids that collided or broke apart, and the pieces are still drifting close together. But I've got the warning bells on. We should be okay."

"Not at this speed, you won't."

"The *Silver Spear* isn't slowing, and we'll just follow them."

Almost before they knew it they were inside the Belt. They were flying by asteroids and weaving through the scattered field of space debris. The broad swath that lay between Mars and Jupiter contained millions of lifeless stony denizens of airless space, chunks of a variety of shapes and sizes.

"Gotta slow down," said Mark, tensely. "I can't keep track of where we are."

"What's our risk?" asked Zip sharply.

"Just a matter of time until a major collision, Zip—a *short* time, I would estimate. There's too much here."

Zip sighed impatiently. "Okay," he said after a pause. "Bring it down to a safe speed."

"I can still track them, Zip," announced Joe. "The ship disappears from the screen once in a while, but I pick it up again. Haven't lost them for more than thirty seconds at a time."

Time went by. Joe grimaced. He checked his dials. He recalibrated his search pattern. Then he slapped his thigh.

"Blast it! They're gone! I haven't seen them for over three minutes!"

David kept his mouth shut, his lips drawn tightly together. There was an unquenchable flame for justice in him, and he

hated the idea that any of the pirates might escape.

"Keep looking," he said quietly. No one else said anything. Minutes passed.

All at once there was a massive nuclear explosion far ahead. The electromagnetic radiation that was released clogged the radar screens.

"What was *that*?" asked Joe.

"They must have struck an asteroid," said Mark, quietly. "They were going speedily and recklessly enough."

"Would that have made such a huge fireball?" asked Joe.

"Who knows what kind of weaponry they had on board?" said Zip.

"Colliding with an asteroid wouldn't set off any fireworks like that, no matter what they had on board," asserted Joe.

"We'd better investigate. Look for wreckage," ordered Zip.

Joe scanned the blast area quickly but found nothing out of the ordinary.

"Hmm," he said. "Nothing. I'll try again." Not much in a hurry any more, he scanned the entire sector thoroughly. "Still nothing. Nothing left of 'em at all."

"Well, I guess that settles it," said Zip, but his brow was furrowed. He was uneasy with the conclusion.

Zip's suspicions will bear fruit, in a way far worse than the Starmen's most horrifying dreams, in the next volume of the Starman saga, **THE RUNAWAY ASTEROID**. In that volume, Zip, Mark, and Joe bond together as a team, and learn that Lurton Zimbardo is a far worse villain than Troy Putnam could ever have been.

"Let's radio the other ships. Maybe they can take a more careful look around here. We'll go back to Eagle City. Jack and Jill will be furious that they got left behind on this one!"

## Epilogue

Commander de Koven was more frightened than he had ever been in his life. He stood rooted to the ground and found it hard to breathe. His blood had withdrawn from his extremities; his hands were white and cold. His subordinates dared not move until he spoke. At last the words came, a whispery croak.

"Bring Troy Putnam here, immediately." Two men left the storage area in one of the warehouses on the launching pad, farthest from the tower. The roar of a small personnel carrier quickly faded into the distance.

Moments later it wheeled to a shrieking stop in front of the warehouse and the erstwhile leader of the pirates was unceremoniously brought to the Commander.

The Commander, now in control of himself, turned steely eyes to the captive. "Where did these come from?"

Putnam stared at the crates as if he'd never seen them before. All were without mark of any kind. Two had been pulled open. Inside of one was a sophisticated robotic assembly of polished iron, steel, and dull red glass. It was unmistakably armed with potent lasers, small radar-guided missiles, and other accoutrements of unidentifiable but sinister-appearing purpose. Inside the other were two ovoid capsules without seam, but obviously magnetic bottles.

"These are antimatter bombs, aren't they—*aren't they?* Where could a pack of malcontents like you acquire weapons like these? There is a lot more to your plot than appears! Speak up! Who's behind you?"

Putnam's mouth opened but made no sound. Suddenly he collapsed.

"Take him back!" shouted the Commander, his nostrils flaring. "Tell the medics to take the best care of him! I want him to talk!"

But there was nothing to be done. Troy Putnam had suffered a burst aneurysm. He would never speak or write or even make sense again. Eventually he would be able to feed and dress

himself, and on good days take short walks before tiring out, but little more.

After the stricken Troy Putnam was carried into the infirmary, none of the pirates could be persuaded to say a word about the weapons.

~

“Starman David Foster acquitted himself admirably!” beamed Richard Starlight. His second-in-command John Rwakatare nodded. They were sitting in the Rock’s office, tastefully decorated in dark brown and white. The aroma of the strong coffee that he always kept brewing filled the room.

“Yes, he did,” said the huge Tanzanian, “but we expected that he would handle situations like this capably. All the indications were there.” He laughed wryly. “We just didn’t think he’d run into anything like this on so routine an assignment.”

“I doubt that this will fully allay the doubts of those who questioned his suitability as Starman material. There was no danger of radiation in this incident.”

“My own reservations have quieted, Richard. There is nothing like actual field experience to build confidence, and this confrontation was a supreme test.”

“You’re right. We can expect strong performances from him in the future,” responded the head of Starlight Enterprise. “He’ll be one of our best Starmen.”

“The three of them together became an impressive team rather quickly. Do you think that they might want to work together?”

Richard rubbed his jaw. “Starmen don’t often work in teams, as you know well. Maybe two at a time, once in a while. But in this case...”

~

Ban Zou Men lifted a datatile from his neat pile and inserted it into the receptor. “Personnel, Eagle City,” he intoned. A list of names appeared on the screen. “Remove all in the first rank, and



mark as incarcerated,” he said. The names flashed onto the screen in a rapid scroll too fast for the eye to follow. Then the man spoke again.

“Calculate and report results in these categories,” he ordered, providing the information the computer needed to complete the task. Almost immediately a soft electronic voice spoke.

“Eight hundred forty-two personnel, or 68.51% of the total, removed from list, three hundred eighty-seven, or 31.49% of the total, remain undetected.” The voice went on providing details of where the undetected individuals were located by category.

“Personnel outside Eagle City by location and category,” said Ban Zou Men.

When the final calculations had been completed and reported, Ban Zou Men mused quietly. He pursed his lips and stared into the corner of his office. *Of those who are loyal to me, thirty-seven percent remain undetected*, he thought. *Most of these are deeply embedded in the fabric of Martian leadership and have the authority to recruit others. They will not be easily ferreted out.*

He sniffed. *I’ll have to wait two or three years, and then try again. Next time the strategy will be different. Best of all, Zimbardo hasn’t been caught, and he’s not likely to be. A very dangerous man, especially now that he’s replaced Putnam.*

Ban Zou Men said, “Shut down securely,” and pushed away from his desk. It was time for tea. He heaved himself out of his chair and walked to the door. As he approached the portal, it opened, and he left his office. The door shut behind him.

The story continues directly with the second book in the Starman saga, **THE RUNAWAY ASTEROID**.

## BOOK 2: THE RUNAWAY ASTEROID

*They will fight against you, but not prevail over you. (Jeremiah 1:19a)*

### Chapter 1: Controlled Fury

“THEY’RE GETTING CLOSER! They’re almost on us! We won’t make it into the Belt on time!” The navigator of the *Silver Spear* was on the verge of panic. His frenzied hands moved over the controls.

“Keep going! Keep up full speed! Make sure that we get there ahead of them!” Lurton Zimbardo’s voice was even and controlled, but it was obvious that he was barely containing his volatile fury. His commands were not to be questioned. His nostrils flared, the muscles around his lips were taut, he kept his fists clenched and pounded a persistent rhythm on his ship’s control panel. His breath sounded as if he could inhale and exhale the room’s entire atmosphere. It was only his iron self-control that kept his crew from giving in to their fears.

Behind them just moments away Starman David “Zip” Foster’s ship, the *Star Ranger*, was closing the gap. The pursuit had been going on for two days, since the *Silver Spear* had blasted off from Eagle City on Mars and escaped while Earth’s forces rounded up the rest of the pirates. Zip Foster, accompanied by Starman Mark Seaton and Joe Taylor and their companion Steve Cliff, had followed less than twenty minutes later. The brief lead that Lurton Zimbardo’s ship had was enough to keep the *Silver Spear* out of the clutches of their pursuers, but not by much. The crew of the *Spear* was suffering acutely from sleeplessness and mounting anxiety.

Only days earlier, Lurton Zimbardo had been second-in-command under Troy Putnam. Together they had organized over 500 men and attempted to take control of the capital city of Mars in a sudden attack. The Starmen and their allies had thwarted the

pirates' plan. Most of the pirates, including their leader, had been captured. Zimbardo, however, had escaped with a few others. With the Starmen in close pursuit, he was desperately trying to outrun them and return to the pirates' base in the Asteroid Belt.

The most dense section of the Belt loomed up. The first few chunks of rock were visible now to the unaided eyes of those on the deck of the *Silver Spear*. In seconds, they were among them. The navigator screamed as the ship whipped by a pitted rock a quarter of a mile long, missing it by a few yards.

"Fool!" shouted Zimbardo. "Turn on the automatic pilot!" The navigator's eyes were the size of saucers. Immobile with terror, he didn't respond to Zimbardo's command. The former second-in-command of the pirates pushed him out of the chair, took over, and activated the switch that cut in the automatic pilot. Lurton Zimbardo was not physically imposing, but more than made up for his slight build with an immensely strong will and a decisive nature that was merciless whenever it served him.

He knew they were going too fast even for the automatic pilot to keep the ship safe once they entered the thick sweep of the asteroids. He also knew that the Belt was their only hope of escaping the Starmen on their trail. Powered by adrenaline, his senses were functioning at their peak. With amazing alacrity and intensity, Zimbardo aided the automatic pilot and threaded the *Silver Spear* through the weaving asteroids. It almost seemed as if he were in a trance.

Soon a dark asteroid loomed ahead, roughly shaped like a potato, forty-five miles long and twenty-five wide, rotating slowly around its longest axis. It was nearly invisible both to the eye and to the instruments, but Zimbardo knew where it was. He barked out a command. The *Silver Spear* slowed quickly, and moments later a huge airlock door opened in one of the poles of the asteroid. Zimbardo piloted the ship into the airlock, through the stone tunnel that led into the interior of the asteroid, and then touched down.

The thin, wiry man raced for the control room as fast as he could run, pushing men out of the way and heeding no one who

called out to him. Once inside, he quickly pressed a series of buttons and entered a numeric code. Once it was entered and confirmed, he made a fist and slammed it hard on a large red button. Immediately all the radar screens were covered with snow.

Zimbardo relaxed for the first time in days. He exhaled quietly and actually smiled. He took a deep breath and smiled more broadly.

“Sir?” asked one of the technicians who had watched the procedure.

“I detonated a hydrogen bomb on an asteroid a couple of hundred miles from here. Part of a backup plan for keeping this place hidden. It will clog all radar screens for a few minutes. By the time they clear, no one will be able to find us or this asteroid.”

Zimbardo’s relaxed state did not last long. He swelled up with energy again, strode to another console, and tapped in a series of commands.

“Come here, Gene,” he ordered as his fingers flew over the keyboard. The man he addressed quickly came to stand by the pirate leader. He was a well-built young man in his late twenties with short curly brown hair, finely chiseled features, and an obvious desire to please. He was well trained in the technology of space control systems. After he had proven his competence in the field, Troy Putnam had made him his chief control officer.

Zimbardo continued. “Follow these coordinates at this speed. Don’t alter the course for any reason without my permission.”

Gene looked at the planning board where the numbers were posted in a pleasant green light. “That course will take us out of the Belt, Mr. Zimbardo. Is that what you want?”

“That’s what I want. It’s time to move away from here. If anything out of the ordinary happens, let me know immediately. Find me by using my personal code on the communicator—no general announcement. Keep watch especially for any spacecraft—*especially* any spacecraft!”

“Yes sir!” Gene took his place and the others returned to their

duties.

Once he saw that the crewmembers were well settled, he picked up the intercom and ordered his leaders to assemble in a meeting room in five minutes. From the few dozen pirates left, he had hand-selected five competent leaders to be his lieutenants: Gebbeth, Crass, Lather, Bolcher, and Slant.

In less than that time, Lurton Zimbardo was sitting at a table with the five other men. All but Zimbardo looked haggard. The pirates were demoralized and upset. Victory on Mars and beyond had been within their grasp, but it had all been blundered away. A band of several hundred men who had planned and worked for several years had been reduced to a few dozen. Their dreams of power and prominence, shaped and fueled by their captain Troy Putnam, had been utterly destroyed. Now Putnam was in custody on Mars, along with the rest of the pirates who had been captured by Earth's forces.

"Troy Putnam was a fool," Zimbardo announced in a quiet voice edged with steel. "His plan might have worked—*might* have worked, if I had had more part in planning—but he was no more than a conceited ignoramus! The Starmen walked in on him and took him completely by surprise! I can just imagine how his face must have looked as he realized his plan was over and he was led off to jail. A fool! We are better off without him!"

"Better off without him?" asked one man in a dull voice. "What do you mean, Lurton? Better off for what?"

"Don't be a fool yourself, Crass!" Zimbardo sneered. "You think we're finished here? We will still get what we want and it won't be very difficult! We don't need Putnam and we don't need a few hundred men, either! You can be thankful you're here instead of locked in a stone room in Eagle City eating square, plain, healthy meals off of a metal tray! The collapse of Putnam's big dream is the best thing that could have happened for us!"

A muscular, unsmiling man on Zimbardo's right swung his gaze to the speaker. "It sounds as if you have a plan, Mr. Zimbardo." The man was in his early thirties and resembled a street fighter. His carefully combed dark hair made him look

almost strikingly handsome, but his eyes were black and humorless.

Zimbardo turned toward the man. "Yes, I have a plan. You, Gebbeth, will be my chief assistant and the pilot of the *Tartarus*, my personal ship. I can depend on you. Space Command's celebration on Mars will be extremely short-lived."

"You were always the strong one, Lurton," said another. "I kind of always figured you for the real leader, and I always wished it was you instead of Putnam."

"Now you got your wish, Bolcher. I've taken charge. I'm moving this asteroid out of its orbit into a place outside the Belt. Here's my plan."

Almost an hour later, the men left the meeting room, smiling, joking, and stepping lightly. Their fatigue was gone, their discouragement forgotten.

Lurton Zimbardo was the last to leave. Now that things were moving in the direction he wanted, he allowed his fatigue to take over. Encouraged by the support of his assistants, he felt he could rest at last. He walked down the halls, past various doors and entered an elevator. The display screen offered only the few floors in use by the pirates but Zimbardo had another destination in mind. Alone in the elevator, he punched in a special code which only he knew. When the proper sequence was displayed, he pressed "Enter." As the elevator began to move, the new leader of the pirates relaxed even further. The others would not know where he was, and he would be undisturbed.

He could barely sense the elevator's motion. He didn't know how far into the asteroid's interior he was moving, but he knew what he would find when he reached his destination. The door opened and Zimbardo stepped out. A quick walk down a short corridor brought him to a double door. Embossed on the doors was a huge, rich, golden symbol—a lush planet with about 80% blue oceans, a few continents, and thick cloud cover. Three small moons were arranged at the upper left, set at the points of an equilateral triangle. Zimbardo had been intrigued by the design when he'd first found it, but now he hastened through the doors

without noticing it. He was eager to get into the Chamber beyond.

As Lurton stepped into the room, he gasped. His dozen prior visits still had not taken the surprise out of the room. Each time he stepped into the Chamber he seemed to be setting foot into another world; he knew he was still inside the asteroid but his senses told him otherwise.

Lurton seemed to be standing on a high mountain overlooking a vast plain on some forgotten planet. A pale blue sky was overhead and a light wind was blowing. Down below on the plain he saw a river snaking its way through a green forest; if he listened carefully he could hear the water. In the distance he saw a fantastic alien metropolis of beautiful glass skyscrapers; he could just barely make out ships hovering over it and small vehicles driving around in the distance. Clouds sailed gently overhead; it was near dusk.

He knew that the room was actually no more than about a hundred feet square, but the display was seamless. For all the world he seemed to be standing on another planet on a late, peaceful afternoon. He had never been able to find out how the room worked or where the wind came from, but he suspected the display was generated by some sort of holographic projectors far in advance of anything he had ever seen or heard of.

Lurton guessed that the scene was from the home planet of the asteroid's builders; perhaps the distant city was their capital. He had spent hours watching the room and never tired of it, for the scene always changed. After a certain number of hours dusk fell and the city lights came on. He had watched different kinds of weather and seen glorious sunsets and sunrises. Occasionally he caught a glimpse of a huge alien starship. He had seen many strange things in the Chamber and he was sure that he had not seen them all.

Lurton liked coming here when he was upset or annoyed; the room had a peaceful air that rested and soothed him. He was certainly in need of that now. He hadn't slept in over fifty hours and could easily have lain down in what seemed like soft turf

and fallen deeply asleep, but the ethereal beauty of the Chamber's vision was restful and he didn't want to close his eyes for an instant while he was inside.

He thought back to the day when he'd found the room. The asteroid had been drifting and uninhabited for who knows how many thousands of years when a solitary asteroid miner had found it and discovered that it was hollow. He had told a few others about his find and eventually Troy Putnam learned of it. Zimbardo grudgingly admitted to himself that Troy was a genius—a weak, impractical genius, but a genius nonetheless. Putnam had found the miner and persuaded him to bring him to the nearly-invisible asteroid. He had even learned how to use many of the asteroid's capabilities, and then had made it the base for his foolish attempt to take over Mars.

Shortly after the pirates had taken residence, Troy Putnam had directed Lurton to explore the asteroid beyond the few floors the pirates used and find out everything he could about it. It was a trying assignment. The first few floors comprised a connected unit and the elevator codes were easy to learn. Moving anywhere else was a matter of trial and error, and the access codes were complex.

One day Zimbardo had found the Chamber. There was very little that could arouse any kind of sensitivity in the wiry, energetic man, but the Chamber could do so. Maybe it was because no one else knew about it and no one could see him wrapped in the depths of the emotions the room could inspire. The Chamber was not the only secret of the asteroid which Lurton had retained for himself, but it was certainly the best one.

At last the peace and enchantment of the Chamber overcame Lurton's resistance to slumber. He sat down and rested with his back against a tree, gazing over the landscape at the alien city. The massive trunk was slightly rough but not uncomfortable. Huge roots spread out in all directions before disappearing into the grassy soil. Branches laden with broad leaves made a shadow-filled canopy over the pirate leader.

As he felt sleep coming on, he fumed one more time at the



Starmen and the stupidity of Troy Putnam. He mulled over his plan and smiled a little. The Starmen would live to regret what they had done to him. His eyes closed and his breathing became deep and regular. At last the pirates' new leader slept.

Above him a few birds chirped peacefully. A short distance away a brook murmured in lyric gentleness. The sky over the city gradually turned from flawless blue through lavender into violet, and silver stars emerged.

## Chapter 2: Sent to Ceres

THE SPLENDOR of the Asteroid Belt stretched away in all directions, and the piercing light of uncountable stars filled the background. Such a view was possible only in airless space. Starman David Foster was staring out of the window of his ship, the *Star Ranger*, but he was not really seeing anything. His brow was furrowed with an uneasy doubt.

"Still no sign of 'em, Zip," announced Joe Taylor. The lanky six-footer had eased naturally into the position of pilot under David's direction. Joe had flown everything from ancient biplanes to interplanetary rockets. He understood the principles of propulsion and flight, and with amazing facility could learn to fly almost any vehicle designed for traveling through an atmosphere or the vacuum of space.

Mark Seaton had naturally become the navigator and engine master of the Starman crew. He specialized in engines and large, complex machinery. He had always had a talent for understanding machines, and he knew the workings of the average rocket from stem to stern.

David Foster, like all Starmen, was able to navigate and fly his own ship, but had a specialty in Deep Space exploration and survival skills. Whenever he was faced with a problem, he could think it through and come up with a solution using the equipment available. He was a natural leader. He excelled at organization and decision-making, and Joe and Mark were glad to be a part of

the Starman team under Zip's leadership.

Joe continued to relate his observations. "I've scanned as far as the instruments can reach, and there's just nothing out there in any direction—except the Earth ships, of course. They should be here in about three hours."

"No debris?"

"No, Zip. I've found where the explosion took place and examined that more carefully than any other area. It was a violent blow. I think about a third of an asteroid was turned into dust when it went off, and that's powerful enough to vaporize any ship that was carrying a weapon with that kind of potential."

Zip shook his head as if warding off a buzzing insect. "All right. Nothing we can do about it." He turned to the third Starman on the crew. "Mark," he called out. "Would you send a report to Mars please and ask Commander De Koven what he wants us to do?"

"Okay, Zip."

Mark prepared the message and sent it off. The response would come through after a delay of several minutes. As they waited, Joe said, "You seem uneasy, Zip. What's there to worry about?"

"I just like completion. That ship we were chasing carried the last of the pirates from Mars, and I'd just feel a lot better if there were some debris, some evidence that they hadn't escaped."

"Zip," came a deep voice from the lounge next to the flight deck, "there's a lot of uncertainties in life, 'specially life in space. I been around a lot and believe me, the exception is when you really know everything that happened—and that's never."

"Sure, Steve," answered Zip, raising his voice. "I know. But I don't like it."

"You'll probably be uneasy most of your life then. C'mon, be like me. Lie down, relax, take a nap. You've been rushing for days now, especially the last couple when we were shooting through the void at top speed. Give it up now, boy. You can't do anything more."

Zip didn't answer, but he walked into the lounge. Steve Cliff was completely relaxed, with his feet propped on a table. His huge frame was sunk into the sofa deeper than Zip would have thought possible. Zip picked up a book that Mark had been reading, and lay down. In less than a minute, he was asleep with the open book face down on his chest.

~

"Up you go, Zip, it's dinnertime." Steve's normally boisterous voice was gentle and almost subdued. Zip took a deep breath and slowly opened his eyes. He sat up, put the book aside and ran his hands through his red hair.

"What's going on?"

"You've been out almost four hours. Figured I'd make myself useful so I whipped up some food. Here you go." Steve set a tray down on the nearby table. There were mashed potatoes, salad heavy on diced tomatoes just the way Zip liked it, and a few pieces of very thinly sliced roast beef in a luscious brown gravy.

"Looks delicious, Steve; thanks."

"Coffee's coming up in a minute, steaming hot with half a teaspoon of sugar." Zip reflected for a moment about how little time he had known Steve and how well he fit in to the group of three Starmen. Steve already knew how he liked his coffee—hot and fresh—and what his favorite meal was. While he was enjoying the aroma of the meal before tucking into it, Steve brought in the coffee.

Zip lifted a mouthful of roast beef and potatoes. "What's going on?" he repeated.

"Mark got hold of the big guys in Eagle City, told 'em what was going on out here. They told us to wait until the Earth forces showed up and then get on back to Mars. We've been under way almost an hour." Zip nodded.

"Mark says there's more and wants to talk to you whenever you're ready."

“Send him in.”

Mark came in as Zip put a fork into a chunk of tomato and lifted it out of the bowl, dripping with dressing. “This really is delicious, Steve!” he called out as Steve disappeared onto the flight deck, leaving the two Starmen to themselves.

“Steve told you we’re on our way back to Mars, I’m sure,” said Mark by way of preamble. Zip nodded. “Commander De Koven also said that we are to report directly to Mars Base. We drop Steve off at Eagle City and go right on to the Base without getting out of the ship.” Mars Base was Starlight Enterprise’s headquarters on Mars. It was a huge plant, covering several thousand acres of Martian desert near the north pole and far from any other settlement.

“What’s up?” Zip’s gray eyes peered over the rim of the coffee mug as he took a swallow.

“There’s no danger of further attack on Mars—everything seems to be secure in Eagle City—but we’re to be given an assignment with a ‘significant time factor’, as the Commander put it. Too sensitive to put out over the radio even with encryption and tight beam.”

“They must’ve learned something from the pirates they captured.”

Joe peeked around the corner. “No—I think they’re going to give us a medal and a month off for liberating Eagle City!”

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Two days later, the *Star Ranger* was cruising at a good clip a few miles above the Martian desert. Eagle City was behind them, and the course was set almost due north. Mark was reminiscing about the parting with Steve.

“Don’t worry about a thing, boys—I’ll make sure the little folk get back to the Moon safely enough.” Steve was referring to Jack and Jill, the diminutive citizens of Titan who had played a critical role in rescuing Eagle City from the pirates during their assault on Mars.

Mark felt very badly that he hadn't been able to see the Titanians. Four days before, they had left Mars without notice to begin the frantic chase of the escaping pirates, and now they were urgently called to Mars Base with no time permitted to see their friends. Personal relationships were important to Mark. As the *Star Ranger* returned to Mars from the Asteroid Belt, he had made a recorded greeting and farewell for Jack and Jill and entrusted it to Steve. Mark was beginning to realize that for him, the life of a Starman would be marked with frequent partings and sorrows.

The always-ebullient Joe did not seem to be affected. "Don't worry about it, we'll see them again. They'll understand. Right now we're off on another adventure!"

As the *Star Ranger* approached the pole, Mark shifted his mood and hoped that Joe would be right.

"Oooh, yes! Look at that!" exulted Joe, pointing out of the front of the ship. A light came over the horizon like a flame too bright to be looked at comfortably. The sun was reflecting off the glass-sheathed buildings of Mars Base.

As the *Star Ranger* rapidly closed the distance, Mark radioed for landing clearance.

"Gorgeous!" said Joe. From the pilot's seat he could make out the airport, the hangar, the sprawling laboratory and research buildings, and the manufacturing centers. Men, robots, and machines scurried around the plant. Security was very high; ever since the pirate attack SE had redoubled its efforts to keep out unauthorized personnel. This was the area from which Starlight Enterprise conducted its Martian operations.

Immediately after landing, the Starmen were brought into a spacious office. As they entered, a clean-shaven man with a rather long crew cut looked up.

"Mr. Konig!" exclaimed Zip as he led the little parade into the central portion of the complex. "I sure didn't expect to see you here!" Konig was in charge of security throughout the entire SE system.

"Welcome to the Base, Starmen!" Konig stood up and came

around his desk to greet each of them with a warm, two-handed handshake. He was a genial man, large but by no means overweight, very strong, firm, and of almost regal bearing. He gave the impression of being always available and affable, but never to be taken for granted.

"Sit down," he continued. "What I have to say is of vital importance and I'm afraid we don't have time to do more than get you briefed on the situation. I can't even take much time to commend you for the outstanding work you did against the pirates. Richard is busting with pride over his newest Starmen! I can't say I blame him—you did marvelous work! You three are wanted on Earth for some special recognition, but unfortunately we have a brief mission for you first."

"Richard" was Richard Starlight, the head of Starlight Enterprise who had entrusted Mark and Joe with their Martian assignment.

"Thank you, Mr. Konig," responded Zip simply.

"The pirates only had a few men placed here at the Base, but they were enough to shut down operations for the few days they needed to paralyze Eagle City. Frankly, it was a surprise for us, and Richard wanted me to take personal charge of security on Mars until it was quite clear that the threat was past. Actually, I flew in with the invasion fleet. My most important assignment here is to set up a secret base for Starlight Enterprise, which will be a backup and defense unit prepared for any events such as the one we've just experienced."

"A secret base?"

"Yes. I'll be looking for the best site, recruiting the right people to man it, and drawing up plans for construction and the tasks it will have to perform. I don't need to tell you that the project is highly confidential. I'm only telling you about it because you're Starmen, and it will be a resource you'll need to become familiar with. Of course, there will be much more information coming your way later."

Ortiz Konig spoke cleanly and clearly, but gave the impression that his thoughts were racing faster than he could speak. He had

had to discipline himself to speak so that others could follow him. There were few wasted words when he had to get a message across, but he was able to converse in a way that assured his listeners that he valued them as people and needed their cooperation. Konig manifested an extremely rare combination of being a “people person” as well as having a supremely disciplined and task-oriented mind.

“We interrogated the pirates while you were in the Asteroid Belt. We started with Troy Putnam, of course, but he wouldn’t say a word. He had a strange kind of strength to him—genial in a lot of ways, but utterly inflexible and unbreakable when he didn’t want to cooperate. His subsequent stroke appears to have completely incapacitated him, so it’s not likely that he will ever be able to help us now.

“We questioned other pirate leaders, too, of course, and a lot of the rank and file. Not all of them cooperated, but enough did that we learned that they have a base in the Belt. It’s no ordinary base. Most of the pirates don’t know its origin but they can describe what it looks like.

“It’s a fairly good-sized chunk of hard stone, mostly iron. It’s hollow, and the base is inside. The access port is concealed. More to the point, it cannot be detected by radar.

“Some of the toughest of the pirates sneered that we’d never find it—that it couldn’t be seen even if you were right on top of it.”

Joe jumped in. “But sir, this technology is not new. There have been craft since the late twentieth century that were invisible to radar. There are other ways to find them—gravitational influences, to name one.”

“Of course, Starman Taylor. This asteroid, however, appears to be the work of some advanced race, other than Earth. The pirates didn’t create it—they took it over. Its sheathing system is highly effective, highly effective indeed. The pirates could be lying, of course, but once the word got out to them that we knew about the asteroid, most of them seemed to swell with a kind of arrogant pride, even welcoming the fact that we had the

information. They were confident that we couldn't do anything about it."

"And that explains, I'm sure, why we couldn't find them in spite of an exceedingly thorough search of the area," concluded David Foster, feeling somewhat vindicated.

"So are we to go find the asteroid?" put forth Joe, leaning forward in his chair.

"No, Mr. Taylor. We want you to find the man who discovered it."

Joe leaned back into his chair, a puzzled look on his face. Oritz Konig continued.

"The asteroid was discovered almost twenty years ago by an asteroid miner named George St. George. He's a loner, like so many of the asteroid miners. He makes a good living, but has no fixed address. He's constantly on the move and spends most of his time away from settlements in the Belt. He'll disappear for months, maybe a year or two—then show up on Ceres or in Eagle City with what he has found in the Belt and turn it into cash and supplies. Then he's gone again.

"Apparently he discovered this remarkable asteroid the pirates took over. He's a trusting, almost naïve, decent man. He spoke unguardedly about his find at one time and Troy Putnam learned about it. Putnam had St. George take him to the asteroid and paid him a good price for the knowledge. St. George showed Putnam where it was, and then disappeared into the Belt. Putnam went on to build his empire of pirates."

"And now you want us to find St. George so he can show us where the asteroid is," inferred Zip.

"It's not that simple, Starman. We've also learned that the pirates who escaped are the most dangerous of the lot. Their leader is a very bad number named Lurton Zimbardo. The pirates were willing to obey Troy Putnam because he encouraged them. They liked him. He was a charismatic leader who gave them visions of grandeur and made them think that they could pull off the impossible. But they are afraid of Zimbardo—for good reason, from what we hear. He is a merciless, calculating



spaceman, patiently willing to play second-in-command to Putnam while waiting for his chance to take over. That chance has now come.

“The pirates are greatly reduced in number now, but those who are left are extremely dangerous. They will be fierce, uncompromising enemies. St. George is the only person outside of the pirates who knows where the asteroid is, how to find it, and has some knowledge of how it works. Where Putnam was willing to let St. George go about his business, Zimbardo will certainly determine to eliminate him. Zimbardo will try hard to find St. George. You must find him first. Protect him, and learn from him where the asteroid is.”

“What do we know about him? How can he be found?” asked Zip.

“He hasn’t been heard from for over a year, and he could be anywhere in the Belt. But he has a friend named Montezuma Vly. If anyone knows where St. George is, Vly will know—and we know where Vly is.”

“Why not just ask Vly where St. George is?” asked Mark.

“That’s where your assignment begins,” answered Konig. “Like St. George, Montezuma Vly is an asteroid miner. Unlike St. George, he doesn’t wander far from his home. But Vly has a deep distrust of any authority figures. He lives on an asteroid he calls Montezuma’s Castle. He claimed it over thirty years ago and enjoys his privacy. No government officials have any right to enter his domain. He is completely independent. We’re hoping that where officialdom can’t act, you young Starmen can. When he knows that George St. George is at risk, I’m sure he’ll help you.”

“Where do we find Montezuma Vly?” asked Mark, mindful of his responsibility as the navigator for the trio of Starmen.

“Montezuma’s Castle is not far from Ceres. You can get to Vly in less than a day from Yellow City.” Yellow City was the major population center on Ceres. Nearly 600 miles across, the dwarf planet was the largest body in the ring of planetary debris that swirled and turned in a large swath between the orbits of

Mars and Jupiter. Nearly half the population of around 100,000 was involved in the lucrative ice mining industry. Ceres was a source of virtually inexhaustible amounts of fresh water—under a relatively thin crust, about 45 million cubic miles of ice surrounded a solid iron core.

The ice mining industry was essential to the Belt's economy. Anyone who could erect a derrick that could bore through the mantle could make a comfortable living selling ice to the asteroid miners and the spacefarers that stopped over at Yellow City's well-equipped spaceport on the long voyage between the Inner and Outer Planets.

"Go to Ceres first and check in there," continued Konig. "Since the pirates will be searching for St. George, you'll have to conduct your search quietly—using the *Star Ranger* and wearing Starman's red uniforms won't do on this assignment. You'll need to change ships and clothes in Yellow City. The rest of the information you'll need will be provided for you in files which you can read as you travel."

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Lurton Zimbardo called his five most trusted leaders to a meeting in one of the libraries on the pirates' asteroid. Each was dressed in the gray and black uniform that Troy Putnam had designed for the pirates for their failed mission to take over Mars. The meeting had been going on for several hours and had involved a lot of detailed organizational work. The men were tired and showing it. As usual, Zimbardo showed no signs of fatigue.

"Yes, gentlemen," said Zimbardo, "You know what to do now. We will need to get all of our men busy and you must drive them, drive them relentlessly! I don't want to take any longer on this work than we need to. We've been moving slowly out of the Asteroid Belt for almost three days."

His laser pointer made a few small red loops on a chart in the library. "This is where we were, and this is where we're going to be." The chart was nearly a full wall of smooth quartz, illumined

from the inside and showing the nearby configuration of asteroids.

The table was strewn with large books opened to star maps, note pads, a couple of small computers and calculating machines, and a huge number of crumpled balls of paper. One man reached for a pitcher of water that was on the table and slowly filled his glass. Zimbardo continued.

“The manufacturing will begin tomorrow—that’ll be for Stubb to oversee. Once the sheathing device has proven effective we can begin work on restoring and disguising our fleet. After that, Crass, you’ll take care of the rest.”

One of the men looked up. “What about St. George? If anyone discovers him he could put a serious crimp in our plans.”

Zimbardo looked annoyed. “St. George will be dealt with, Mr. Slant. I have not forgotten him; you can leave that to me. He will never speak to the Starmen or anyone else.”

Another spoke. “Is it really necessary to silence him? It will take a large number of men to make a search—men we could use on the urgent projects at hand. Since you’ve moved the asteroid from its original site, he can’t find us now or show anyone else how to find us.”

“He can’t find us, but he knows how this asteroid works—almost as well as I do. If the Starmen learn what he knows, it could be disastrous for us in the unlikely chance that they ever locate us. I don’t like taking chances, and I don’t like leaving any loose ends. St. George is a loose end we can’t afford.”

“Do you know where to find him? He doesn’t have any fixed place he calls home.”

“Our men have quietly inquired for him on Ceres and learned that he has a good friend, another asteroid miner named Montezuma Vly. We know where Vly lives, and Vly will know where St. George is. Vly doesn’t receive visitors, but his resistance won’t keep a small fleet from landing. One way or another, Vly will tell us where to find George St. George—and soon.”

### Chapter 3: Montezuma's Castle

A FEW DAYS later, Lurton Zimbardo decided to take a tour of the workshops and check on progress. Where Troy Putnam's organization had been large, easy-going, and confident, Zimbardo's was tight, highly-organized, and ruthless. Its high degree of efficiency was dependent almost exclusively on Zimbardo himself. Once Zimbardo had asserted his control over the organization, the asteroid and its crew had rapidly become an extension of his formidable personality.

He took an elevator from his suite down to the main floor of the organizational complex and stepped out into the hallway. He walked with a firm tread, and men stepped aside with a slight deferential bow. He passed through the great glass doors at the end of the passage into a huge foyer. Passing through, he entered a courtyard, strode across it, and came into the working area.

About sixty men were working at various stations. The men felt that Zimbardo was a real leader and were glad to see their new commander. It was amazing how rapidly the sense of defeat had been changed to one of expectancy and pride.

Every day or two another ship docked and new workers came in to join the crew. Zimbardo had sent out a few trusted leaders to recruit men from noted asteroid bases and mining operations in the proximity of his asteroid. He could use more men, especially skilled workers in electronics and mathematics, but he wasn't eager to build up a large force. He chose carefully. The workforce was being built up gradually with men he could trust. He had also invited three smugglers he had known before to join the operation, with their men.

"Stubb," called out Zimbardo.

"Sir," responded the man so addressed, an eager man about thirty years old, with sandy blond hair and baby blue eyes. He hastened up to the pirate leader.

"Give me a status report. The ships first."

"The sheathing systems are easy to manufacture, thanks to the ample supplies from the warehouses. The men are able to put

them together rapidly, even the unskilled workers, since they just need a master circuit to copy. I have forty men working on these, with the skilled electricians checking each plate. As you know, we completed work on ten ships six days ago; they were tested and went out on their assignments. They have not returned yet. These plates we're working on now are going on the remaining ships, and we have already finished work on four of them. That leaves just three to go, including the ship that just joined the crew yesterday. We should be finished by tomorrow afternoon."

"Good. And the power units?"

"These are far more complicated, sir, so I only have the most skilled workers assembling these. The same with the propulsion units. They won't be ready for at least a week, not even one of them. However, once we get the prototype finished the rest should follow rapidly."

"How long until you have all 85 completed?"

"I should have a good number of the unskilled workers ready for a new assignment once they have finished with the sheathing plates. After the design has been checked by the experts, we can get them cracking on the power and propulsion units. Of course, each unit will have to be tested by the experts, so I would estimate that all 85 can be operational within ten days—unless we run into any problems."

"Good work, Mr. Stubb. I will check on progress every day."

"Very well, sir." The man went back to work and Zimbardo returned to the main complex.

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The dwarf planet Ceres was the hub of the Asteroid Belt, the place where professional miners first arrived from Earth before their companies farmed them out to the mining centers on various asteroids. Independent asteroid miners came to Ceres once in a while for supplies, and corporations picked up equipment imported daily from Mars. Ceres, located several days' travel from the nearest sizable population center, was a

buzz of activity.

The *Star Ranger* approached the dwarf planet after a fast but uneventful journey of six days.

“Quite a cloud of starships!” remarked Joe as Yellow City came into view. A swarm of at least forty ships of an amazing variety of sizes, shapes, and vintages was moving over the port. Some were hovering, others were heading in toward the landing field and a few others were departing. None moved very fast since the space was as crowded as bees around a hive. Ice mining platforms dotted the terrain not far from Yellow City, visible in the viewport of the Starmen’s spacecraft.

The city was a well planned settlement, in spite of having been developed jointly by several different mining companies. Although the competition was fierce for the rich minerals of the Belt, cooperation had been necessary to build the city, especially in the earliest years of settlement. The result was beneficial to all, as Yellow City could easily supply the needs of miners of all kinds as well as serve the traffic to the Outer Planets that almost always came by way of Ceres. Advancements in propulsion systems were making it possible for some of the newer ships to bypass Yellow City on their way to Jupiter and beyond, but Ceres was still a major stopping point.

Zip spoke quietly to Mark. “Mark, please let them know that we would like to land.”

Mark opened the microphone. “Starman Mark Seaton on the starship *Star Ranger* requesting permission to land.”

The response was immediate. “Yes sir, Starman! Ceres is proud to welcome you!” The operator went on to give directions for landing.

“Why is he so deferential?” queried Mark after communications had been completed.

“We’re famous!” responded Zip. “We’ve been aboard ship since the end of the attempted takeover on Mars and haven’t kept up with the news, but we’ve become household names. Oritz Konig told me that just as we were leaving the Base. We’re the men who liberated Mars! The people in the Belt are especially

pleased since the pirates had planned to blockade them once they had a stronghold on Eagle City. Why, you couldn't find another place in the Solar System that'd be happier to see us than Yellow City!"

The *Star Ranger* was given priority docking. Once its engines were shut down, a large crew ran to secure it and welcome the Starmen. As Zip, Mark, and Joe descended the ladder, eager hands reached up to help them down the last two or three rungs. Through the bubble helmets on their suits, the mechanics and service personnel were all smiles.

When Zip inquired about the offices of Starlight Enterprise, the Starmen were ushered to a small moonbus and driven directly to the site. The complex was a small two-story building set in a row of offices, workshops, and garages not far from the landing field. All buildings on Ceres were made of the gray rock native to the planet. Building material was cheap and solid, but plain.

Although the city itself was covered with an atmosphere dome, the SE office was located close to the landing field, not within the city proper. Entrance was through an airlock. Once through the airlock, the Starmen removed their helmets and placed them on the rack.

"Whoopee! This is fun, being famous!" exclaimed Joe, his eyes alight. "I hope it lasts until we get back to the Earth-Moon system! I'd like to enjoy it!"

"I hope so, too, for all our sakes. Your exploits have given *all* the Starmen a good name!" Joe whirled.

"Kathryn Mullaney!" cried Joe. Mark and Zip smiled widely.

"What are you doing on Ceres, Kathryn?" asked Zip. "I haven't seen you since your last visit to the Academy at the beginning of our senior year." Kathryn Mullaney had graduated from Starlight Academy a year before Zip and his partners; her first assignment as a Starman was in the Outer Planets. She was twenty years old, wore her strawberry blond hair short, and had a few freckles spangled across her nose below blue eyes which had a touch of green in them.

“Finished my assignment on Ganymede and I’m coming back home for a leave which I hope will be very long! I spent eight months in the smallest population center in the Solar System, and can’t wait to get back where there are crowds of people! I’m just staying here long enough for a quick once-over on my ship, refueling, and then I’m Earth-bound. In fact, I’m on my way out now.”

There was a little more pleasant conversation, then Kathryn said, “I’ve got to be going, and Sim is waiting for you upstairs. Good luck!”

Zip, Mark, and Joe ascended the stairs and came to the landing. The stairway and corridors were very plain. There was no unnecessary ornamentation of any kind, and lighting was minimal. They found a door with a sign on it that read STARLIGHT ENTERPRISE in bold letters. A second line provided the name of SE’s resident operations officer on Ceres: Sim Sala Bim. Joe knocked.

“Come in,” said a voice. The Starmen entered the door. The occupant, a tall, slender man of Indian extraction with black thinning hair, was already coming toward the door to welcome his visitors. “Welcome! So glad to see you! Welcome, please come in!” He ushered them into the room.

“Nice to see you again, Sim,” greeted Zip. They sat down in a circle of chairs, Sim sitting near a table on which were placed all the makings necessary for tea. There were already two cups set out, which had been used recently. Sim took one for himself and set the other aside. “This was Kathryn’s,” he said as he produced three new cups for his visitors. “You probably passed her on your way in.”

The conversation continued as Sim poured the tea from a very large brown earthenware teapot. Before long, Zip brought up the subject of their visit.

“I wish we had more time to visit, Sim, but our assignment is extremely urgent. We must find George St. George as fast as possible, and Oritz has told us that only a miner named Montezuma Vly can tell us where he is. We’re on our way to



Montezuma's Castle."

"Ah, yes," said Sim Sala Bim, "Sabbath George. He is well known here, but we haven't seen him in almost a year, I think. Almost a year."

"Sabbath George?" asked Mark.

"George St. George is a devout man—genial, generous, liked and respected by everyone. Honest to a fault. He's called Sabbath George because of his beliefs. The nickname is intended to kid him a little bit, but is really meant as a term of respect and affection. But to find him in short order, you will indeed have to go through Montezuma Vly. Montezuma's Castle is not hard to find, but getting in will be difficult."

"We are familiar with Mr. Vly's convictions and we wouldn't bother him if there were any other way to find St. George. Given the time constraints, we have no choice."

Sim nodded. "Montezuma's Castle is easily recognizable by its unusual shape. It is a true crescent, a sliver of stone with Vly's operation in its very center." Sim went on to provide its coordinates and other information the Starmen would need to find it.

Zip continued. "On this assignment secrecy is of the utmost importance. It is vital that no one knows who we are or what we're doing. We obviously can't take the *Star Ranger*, as the news media have made that ship easily recognizable. We learned that when we landed on Ceres. I think we're going to need to use another ship."

With Sim, the Starmen made plans to leave the *Star Ranger* on Ceres while the Starmen, dressed in ordinary clothes, quietly departed for Montezuma's Castle in another ship.

"I'll let you have the *Vigilant Warrior*," said Sim. "It's a local ship, designed for operating in the Asteroid Belt. We own it, but it hasn't been used in a while and probably no one will recognize it as an SE ship. It's the best I can do on short notice, but it should serve you well."

"I'm sure it'll be fine, if you say so," answered Zip.

Sim Sala Bim got right to work, and the *Vigilant Warrior* was

ready for takeoff within two hours. Without any delay, the Starmen lifted off from Yellow City. As Joe piloted the ship into the heart of the Belt, Zip looked back for a brief, wistful moment and saw the unusual dark red color of the *Star Ranger*, his ship, on the field of Yellow City.

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“That’s it,” said Mark, as the navigation equipment locked onto the asteroid that was the home of the elusive Montezuma Vly.

“Hmmm. No wonder it’s so hard to find,” observed Zip, looking over Mark’s shoulder for a moment. “Not far from major travelways but so unobtrusive you’d never notice it.”

“It just hovers almost in the shadow of that large, worthless chunk here. Should be able to see it out the window before too long.”

Joe kept the *Vigilant Warrior* at a moderate pace as they drew close to the home of the reclusive asteroid miner.

“Should be coming up on it about now,” offered Mark.

“There it is,” said Zip almost immediately. The *Vigilant Warrior* had eased its way around an oblong worldlet—the “large, worthless chunk” that Mark had just mentioned—bringing into view a crescent-shaped, stony asteroid about a mile long. It looked almost like a fat banana with the ends tapering into sharp points.

“Montezuma’s Castle,” breathed Zip. “Kind of looks like a moon for that large asteroid.”

“I think it is,” answered Mark. “It rotates around the larger chunk and the two make almost a helix pattern in their journey through the Belt. They were probably a single asteroid at one time. One powerful impact must have split them, but the pieces haven’t drifted far apart.”

“Well, let’s get down there. There’s no mistaking the shape of the ‘Castle’. Whatever odd shapes you can find in the Belt, that’s got to be unique.” The Starman brought the *Vigilant Warrior* slowly into the proximity of Montezuma Vly’s refuge. “See if

you can raise him, Mark.”

Mark Seaton flipped on the communicator.

“Starman Mark Seaton on the starship *Vigilant Warrior* calling Montezuma Vly on the Castle, requesting permission to land.” His voice was smooth, intimate, and confident. There was no response. A minute later, Mark repeated the message. The metallic voice of an automatic response system came on.

“This asteroid is private property and visitors are not welcome.”

“We understand that, sir,” Mark replied, “and we would not request permission to land if it were not a matter of urgent business of personal concern.” A human voice came on.

“Yeah, like I haven’t heard *that* one before! I don’t want visitors! If I wanted a social calendar, I’d go live in a big population center like Ganymede. Keep going! Next services are 3,000 miles away.”

“Mr. Vly, this is Starman David Foster, Commander of the Starlight Enterprise ship *Vigilant Warrior*,” Zip broke in. “We understand and respect your reluctance to receive visitors and will stay no longer than necessary. We are calling on you because your friend George St. George has information we need which is vital to the safety of all the settlements on Mars and even the Earth-Moon system. We also believe it possible that he is in danger from violent men.”

“Well, *that’s* a new one. George in danger? What about it?”

“May we land, Mr. Vly? I don’t want to take the slightest risk that our conversation can be overheard. We won’t stay any longer than necessary.”

“You’ve found me. May as well come in and state your business.” The communicator was shut off from Vly’s end.

Zip came up on the Castle. It didn’t take long to find the landing site. There were two spacecraft in position in about the middle of the asteroid. One was a small ship suitable for local jaunts, and the other was a normal-sized craft capable of interplanetary travel. The name *Sentinel* was painted on the side of the larger craft. Both were very old and in places a little

battered, but were clearly cared about and well kept up.

The *Vigilant Warrior* touched down about fifty yards from the closest of Vly's craft. Joe shut off the engines and pressed the security button. A slight shudder ran through the ship as bolts shot from the fins, securing the ship to the surface. The Starmen disembarked and descended the ladder.

"Over there," pointed Joe. The entrance to the airlock was discernible across the tiny landing area. The Starmen began walking toward it. The starfield swept away to right and left. A great horn of stone rose up before them, sweeping to a point above. Behind them a similar horn curved up in the opposite direction.

The ground was uneven, with contours sharply defined. Jagged, broken rock comprised most of the terrain, with a few smooth ripples that rose about twenty or thirty feet from the plain. Shadows were utterly dark in the vacuum of space. The Starmen wore asteroid shoes, designed for walking in low gravity conditions. Their soles had an automatic "smart grip" function that gripped the ground when weight was placed on them, but released when the walker took another step. Without the asteroid shoes, the minimal gravity of "Montezuma's Castle" would have made walking a difficult, even dangerous, task.

The Starmen saw that the airlock was set into the side of a hill. The hill had been artificially cut away in front of the door. As Zip, Mark, and Joe approached the airlock, the outer door opened. When they had passed through, it shut behind them. Joe kept watch on the instruments as air filled the compartment. When the atmosphere had become normal, he removed his helmet, and Zip and Mark followed suit. They opened the second door and passed through. A dimly-lit stairway led down in front of them. About twenty-five steps brought them to the beginning of a short passageway. At the end was another door. It was solid.

Zip approached the door and paused. He turned his head to the other two, lifted his eyebrows and shrugged. Mark and Joe nodded. Zip knocked. The door was opened almost immediately.

A good-looking, clean-shaven man with dark brown wavy hair

looked them over once quickly, and then stepped aside. "Come in," he said, waving a hand while the other held the door. "I'm Montezuma Vly." He had powerful hands, obviously used to hard labor. His nails had grit under them. Strong as the hands were, they were also clearly the hands of an artist, capable of fine work. He shook hands with the Starmen as they entered.

"Wow!" said Joe, the last to enter. Vly shut the door. The three Starmen gazed about them. They were standing in a small room packed with machinery—old-fashioned machinery used for cutting rock, polishing stones, and mounting specimens. The heady smell of machine oil hung in the air, not heavy like that of an aircraft hangar but attractive and energizing, almost like a perfume.

The machinery was made of cast iron, with wheels and gears, rods and chains visible inside the cases. Mark noted that each machine looked lovingly maintained. The newest machine must have been at least fifty years old, but all were in top quality condition.

"They're made to be used," explained Vly, discerning their thoughts. "You can't get better machines than these today. The new stuff doesn't last and can't be depended on."

Mark, the engine master of the trio, immediately thought of the precision instruments produced by Starlight Enterprise. He opened his mouth, but said nothing. He knew that SE made quality machinery, but little of it was iron. He didn't want to make a fool of himself by talking about something of which he knew little. Instead he smiled and decided to take a closer look.

He leaned over the closest apparatus. His mild skepticism quickly turned to awe. "My goodness, Mr. Vly! This is incredible! These machines are beautiful!" Vly didn't smile, but his face softened a little.

Joe and Zip were looking around the room. On two walls were hung various hand tools. Several shelves held cans of oil and paint, boxes of supplies, and dozens of samples of minerals and crystals. The other two walls were lined with books, half of them behind glass.

Zip turned his head to the side to read the titles of some of the books. He saw *The Complete Works of William Shakespeare*; *Kon Tiki* by Thor Heyerdahl; Homer's *Odyssey*; and several advanced textbooks on mineralogy, metallurgy, engineering, and electronics. Zip's eyebrows lifted. He was impressed.

Mark was looking at the books on the other wall. *Basic Watercolor*, he read. *The Stories of Edgar Allen Poe* was next to *The Life of Johann Sebastian Bach*. Mark whistled. "Not what I expected, Mr. Vly," he said. "Not at all what I expected."

"Uh huh," murmured Montezuma Vly. "Let's get down to business. Follow me." He squeezed past Zip in the crowded little workplace, passed through a narrow door on the other side of the room, and through a passageway. The Starmen followed.

A small furry shape leaped through the air in front of Joe. "Ack!" exclaimed the lanky Starman, stumbling backward, knocking over a couple of small boxes as his arms flailed. Nuts and bolts scattered on the floor. Joe backed into another box and sat down hard on it.

"What—?" exclaimed Vly, turning.

"What was that?" cried Joe. "Something jumped across the corridor. I think it went into this recess here." He pointed to an opening between a few stacked boxes.

"One of my koalangs," answered Montezuma. "I've got four of them here. There are a few more in the living quarters. Good company. They can startle you, though, and they can make an awful mess. More than once I've threatened to make stew out of 'em and eat 'em for dinner." The Starmen looked at one another, wondering if he was joking. His next action showed that he was.

"Come on, Howard," said Montezuma gently, bending over and calling into the dark place where the koalang had hidden. "They won't hurt you. I know you're not used to company, but no one's gonna hurt you. Come on out. That's it, come on." He reached in gently and drew a small creature out of the darkness. It had a small furry face with large, frightened eyes, and snuggled up against the miner. Its fur was caramel and white. He folded it into his chest and covered it gently with both hands. He

crooned to it lovingly for a moment or two, then said, "That's right. You're okay. Go play." Then he added with mock fierceness, "Just stay out of the paint!" He set it down and turned back to the door at the end of the corridor.

"In here," he directed, leading the way into the room beyond.

## Chapter 4: Sabbath George

THE ROOM was smaller than the Starmen had anticipated. Its small size was accentuated by being packed to the ceiling with a variety of items. Hand tools identical to those used by rock hounds for centuries lay on tables and shelves. Stacks of paper, most of which showed signs of being bound by hand, covered much of the remaining space. On one shelf was a large, clear sphere on an ornately shaped stand. The eyes of all three Starmen were drawn to it.

"Have a seat," offered their host.

There were three chairs. Montezuma sat in one placed before a desk and swiveled to face his visitors. Zip and Joe took the other chairs and Mark sat on a short stack of crates filled with rock samples. A thick book rested on a table in the center of the room. Mark glanced at the title, turning his head slightly to do so. It was *The Flying Carpet*, by Richard Halliburton. There was a bookmark about halfway through the book.

The asteroid miner leaned forward. "What about George?" he asked.

Zip filled him in. Montezuma Vly paid close attention. His eyes never wavered from Zip's face as he spoke. When Zip was finished, Vly nodded.

"Mm hmm," he murmured. "This could be bad for George. I'll tell you where to find him. I expect that you'll be able to keep him out of the clutches of the space vultures. You've got an enemy to be reckoned with in this Zimbardo psychopath, but I believe you can handle him."

"You seem to know a lot about our recent exploits, Mr. Vly,"

said Joe, conversationally.

"I'm not the complete recluse people think, Mr. Taylor. People have a lot of wrong ideas about me. I don't want to be listed in the Register of Peoples, and I don't want people butting into my business or telling me how to live, but I keep up with the news. If I hadn't recognized you, you wouldn't have been allowed to land on my asteroid. You're not wearing Starman's red, you know."

"We're grateful to you, Mr. Vly," nodded Zip.

"May I ask—" began Mark, then hesitated.

"Yes, you may ask. Go on."

Mark turned his head toward the sphere. "The sphere..."

"Oh yes. It's pure crystal, all right."

The Starmen gasped. "*Pure...crystal...?*" stammered Mark. "Why, there can't be a larger one in the Solar System! It's priceless!"

"Next largest was in the Smithsonian Institution, a little more than twelve inches in diameter. This one's sixteen and three-quarters inches. Found it myself on Adamant—that's the parent asteroid from which this sliver I live on was busted off a few millennia ago." Mark knew he was referring to what he had called a "worthless chunk" before they landed.

Vly went on. "Shaped it myself in those old machines you saw coming in here. Had to redesign some of 'em to fit a crystal this size, but we did it."

"It looks flawless!" breathed Joe.

"Looks it, but isn't. Its flaws are its greatest treasure. Watch this; you haven't seen anything yet." Vly picked up a small cutting tool with a laser guide at the end. He turned off the lights and then pointed the laser at the crystal sphere. The beam struck the surface and then scattered throughout the interior of the globe, igniting sparks of spectacular glory. Mark could feel tears come into his eyes from the unearthly beauty the light created. Many dozens of flakes, invisible to the naked eye, were revealed when the laser beam pierced the near-perfect sphere. They exploded in glorious colors—gold, orange, deep red, flaming



yellow, silver; even a few brilliant green, deep blue, and violet sparks traced across the inner world.

The Starmen were speechless. They couldn't take their eyes off the resplendent glory of the sphere under the laser light. "Beautiful, isn't it?" asked Vly, gently. There was no need to answer.

"Where do the colors come from?" asked Mark. "Laser light has only one wavelength, so it can't be refracting in there."

"The crystal's impurities are almost invisible to the unaided eye," answered Vly, "but the laser hits the impurities and causes secondary emissions of light of all sorts of color—the more impurities, the more colors. It lights up better than a fire opal."

As he moved the laser beam slowly around the globe, the interior lights changed—first one, then another "flaw" taking the light and surging into radiance.

All too soon, he switched off the laser and turned the room lights back on. It was almost as if a spell had been broken.

"C'mon," he said. "I'll show you just where George is on the chart." He moved back down the hall, the Starmen following. When they were back in the room they had first entered, Vly reached up into a recess where there were several rolled sheets of paper. "Move aside," he said quietly, pushing a reluctant koalang over and pulling out a large roll. He unrolled it over a rock polisher and gestured for the Starmen to take the corners. It was a map of a portion of the asteroid belt.

"Here's where we are," said Vly, pointing to a spot on the map, "and here's where George is." His finger swept across the map to where a tiny dot had been placed. "It's a mining operation of moderate size called Z25. He runs it there with a fair-sized crew—maybe a dozen men." There were equations, sketches, and notes scribbled all over the sheet.

"I'm sorry, Mr. Vly," said Mark, "but I don't follow you. I'm used to plotting coordinates and thinking in three dimensions."

"See these figures?" asked Vly. "They're your coordinates. It is a three-dimensional map, in a manner of speaking. If it weren't, I couldn't get around. I'll write down what you need.

But you'll find George on that little plunk of a rock. He's been there several months now and won't be hard to find, once I point it out to you. I just spoke to him a few hours ago and I'll get ahold of him again and tell him you'll be coming." He began to write some notes down for Mark.

"Must take a lot of power to run your operation here, Mr. Vly," observed Mark while he waited for Montezuma to finish writing. "Don't you have to conserve energy?"

"Haven't had to conserve energy since I developed a new process for drawing energy directly from the sun."

"But out here the solar radiation is so weak. You can't get much energy from solar panels, no matter how efficient—certainly not enough to run your machines without some sort of supplement."

"I don't use solar panels any more, Mr. Seaton. I mine energy from the sun directly with an entirely new process. I can pull in and store about four gigawatts. Gives me all I need and plenty left over."

"Four gigawatts?"

"Four gigawatts. That's a four with nine zeroes after it."

Mark almost shouted. "I know how much it is! Mr. Vly! You amaze me! There's nothing like that anywhere else in the Solar System! *Nobody* has anything like that, nobody! Not even Starlight Enterprise! You could make a *fortune* if you sell your design!!"

"Really?" said Mr. Vly, lifting his eyebrows slightly, handing him the sheet with his notes on it. "Excuse me a moment while I write that down, so the next time I want to turn my whole life over to lawyers and businessmen I'll know just what to do."

"But, but..." Mark spluttered. Joe laughed and Zip smiled.

"Thank you, Mr. Vly," said Zip, extending his hand. "It has been a remarkable visit, and we appreciate very much your letting us drop in."

Montezuma shook Zip's hand. "Wait a minute, Starmen. Let me give you something to help you while away the long hours in space." He turned and rummaged through a box, then scanned a

shelf behind him. After a moment he pulled out a gold disc in a flat, clear container.

“Take this,” he said, handing it to Zip. “It’s a recording of the entire works of Johann Sebastian Bach. That’s more than 1,200 compositions. The music is so complex that some of its mysteries weren’t even discovered until the computer age. Lily made this disk. She’s an expert in the music of the Renaissance. Does research all the time.”

“Lily?”

“Lily and I have been partners out here for over twenty years. Us and the koalangs.”

Zip put the disk into his pocket. “Thank you, sir. Best wishes to you.”

“You too. An occasional visit once in a while is welcome, especially when people respect my way of life. Most don’t understand. I think you three do. Just protect George. He’s a good friend, and they’re hard to find.”

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About 56 hours later, the *Vigilant Warrior* came into the proximity of Z25. An asteroid nearly twenty miles long and half as wide grew large in their screen.

“There it is,” announced Joe. “Z25.”

Zip gave a nod to Mark, and Mark opened communications.

“*Vigilant Warrior* calling Z25. We have arrived in your area and seek permission to land.”

“You made good time, friends,” came a voice instantly. “Come on in and welcome.”

The Starmen had spoken to St. George once during their journey from Montezuma’s Castle, but only briefly. The communications were encrypted, but even the encryption could be a tipoff to an enemy who might be listening in.

As they made their final approach, the Starmen had a good view of Z25’s horizon near the time of local sunset. The surface was dark because of the oblique illumination, but several

boulders caught the sunlight and appeared as bright sentinels on the landscape. The brightest of the boulders, just to the upper right of a deeply shadowed crater in the foreground, marked the landing area. A cluster of artificial structures was visible nearby, and several spaceships were parked in an informal array. A dome covered the buildings, and reflected the sun in a burst of brightness. Mark had a quick memory of dewdrops in the garden of his home on Earth when he was a child. He recalled thinking that each dewdrop held a small sun.

In moments the Starmen were sitting in George St. George's study. He was a man in his middle-fifties, of average height and weight, with a full head of wavy blond hair. It was obvious that he cut his own hair, but long practice had made him skilled at it. Though his eyes were ice-blue, he exuded warmth. He had a ready smile. The Starmen were sitting in a makeshift room under a temporary atmosphere dome on an isolated asteroid, but St. George's courtliness and genuine respect for his visitors made them feel as if they were in a manor house. On his desk lay a thick book with the title *Commentary on the Letter to the Romans*, and several sheets of paper and a pen were set beside it where he had obviously been doing some study.

"I hope you men won't mind waiting for refreshments. It's almost dinnertime and the crew will be coming up for a meal in about half an hour. Of course, you'll join us, won't you?"

"Thank you Mr. St. George," responded Zip. "We'd be pleased to meet your men and see your operation."

"Monty tells me you three are real ripstavers, and he doesn't say that very often about anybody. You must have impressed him!" St. George was full of smiles.

"May we sit down, Mr. St. George? Our business is rather urgent!" Zip continued.

"Of course, of course. Please forgive me! We don't get visitors of any kind out here and I'm just not used to entertaining. Please forgive me!" St. George rushed busily setting out chairs, bringing in two from a room next door. "And please call me George."

Once they were settled, Zip began to tell George about the pirates and Zimbardo's likely determination to find and eliminate the one man who knew where the pirates' asteroid could be found. Before he got too far into the story, George lifted a hand and smiled. "Yes, yes, I know," he said. "Monty told me all about it."

The Starmen leaped out of their chairs, absolutely stunned. Before they had left Montezuma's Castle Zip had impressed upon Vly how vital it was for St. George's safety that they not communicate until his friend was safe. Zip had begged him to send just a quick, encrypted message that Z25 was to expect three visitors who had Vly's seal of approval—no more.

"George!" gasped Joe. "That message could have been intercepted by the pirates! They *must* be looking for you!"

"We told Vly not to communicate with you! It could mean your life!" continued Mark, suddenly heartsick with anxiety.

George chuckled. "Don't worry, Starmen! The pirates already tried to find me through Monty, but the greegles protected him, and the pirates'll never find me without cooperation from Monty—which they'll never get. There's really no need to worry. We're completely safe here. We'll have dinner, you'll stay here to sleep, I'll show you around the operation, and you can go back to Ceres."

The Starmen were speechless for a moment. Joe's eyes nervously scanned the room and Mark stared at George with his mouth agape. Then Zip spoke.

"What are greegles, George?"

George chuckled again. "You haven't heard of this 'asteroid miner's legend'? Most people think it's in a class with leprechauns and mermaids, the story of the greegles, but it's all true. The greegles are the inhabitants of the asteroids. Don't know if they're alive or not. They're made of metal—some kind of metal—or maybe they just wear a metal suit. They're about a foot high. Now, don't stare at me like that; you're looking thoroughly obfuscated, probably thinking I've been out in the vacuum too long, but I've seen them! They're little and they're

old, very old, but they're powerful! No one can beat them! Usually no one ever sees them and they don't have any need to interfere with human beings. They don't mind it too much, though, if a solitary asteroid miner sees them once in a while."

"And wh—, what do they have to do with Montezuma?" asked Zip, keeping his voice steady.

"Why, a short time after you left the Castle, about five ships tried to land on the Castle by force—pirates, for sure. No doubt they wanted to force Monty to tell 'em where I am. But Monty knows how to contact the greegles. There's a lot of greegles on Adamant." George chuckled again.

"Those poor fellows—the pirates, that is! When the pirates told Monty they were going to land whether he wanted them to or not, why, he just called the greegles for help. They cut four of the ships into pieces in a matter of seconds, leaving the crew floating in their spacesuits. Then they grabbed them with some sort of invisible grappling beam or something and herded them toward the fifth ship. That ship gathered them in and took off."

Now George laughed out loud. "They got the message real fast! *Go away and don't come back!* And they scrambled! Never even set foot on Montezuma's Castle. Monty will make good use of the floating space junk the pirates left. Serves 'em right!"

Just then a gentle buzz sounded. "That's the call for dinner, friends. Come meet the others!"

Almost immediately another sound came through the communications system—an urgent clangor. St. George's face became taut and a look of surprise and anxiety came over his features.

"What's that?" asked Zip.

"It's the alarm," St. George whispered. "It's never sounded before." The alarm abruptly shut off and an excited, panic-stricken voice came through the intercom.

"Five ships approaching! Coming in fast! They're commanding all hands to come to the landing field and threatening to destroy the whole operation if we don't cooperate! They've already started to destroy the base!"

## Chapter 5: The Destruction of Z25

JOE dashed from the room and sped down the hallway to the control center of the mining base. Each strike of a laser beam colored the interior of the buildings with ruby red as the attackers' targets were vaporized, and the flashes were coming with disturbing frequency. He hurled himself into the tiny office where a frantic young man sat at a console.

"We're going to die!" cried the young man. Joe looked through the large window and saw five ships hovering over the base. Their laser cannons were rapidly destroying the outlying parts of the mining base. There were no defensive weapons. Joe glanced at the radar screen and his hair stood up as he saw that the screen showed nothing. To the surveillance system, the ships were invisible. The technician was babbling in abject, helpless fear, but Joe's pulse leaped when he realized that the frightened young man might be right. They could all be dead at any moment. The man fled the room crying.

Joe looked out the window again and saw that laser cannons had begun to destroy the ships. Through the horrifying, rapidly expanding concentric vapor shells, he saw the *Vigilant Warrior* crumpling into a heap. The other ships were either completely destroyed or well on the way.

"What is this? Who are they?" exclaimed Mark. He, Zip, and George had followed Joe to the control center and were watching the laser beams sweep the landing field. The ships were being indiscriminately reduced to molten slag.

"Their laser beams are immensely powerful, and they're operating at full capacity," observed Zip, grimly. Just then the lights went out and every apparatus in the control center went dark.

"They found and destroyed the power plant," whispered George, the tenseness evident in his voice. "But they're not touching the inhabited parts of the base."

Suddenly Zip turned to their host. "George!" he said urgently. "Do any of your crew know that we are Starmen?"

George turned a distracted face to Zip and stared as if he wasn't comprehending what Zip had said.

"Do any of your crew know that we are Starmen?" Zip repeated carefully.

"I—I don't know. I didn't tell anybody, I think, but I didn't keep it a secret."

"Look! Gather them all together and tell them not to say anything about us to these invaders! Our safety may depend on it, as well as any chance we all have of eventually escaping!"

"Ah—all right," George stammered.

Since the power was out, there was no way to make an announcement through the communication system, but the rest of the crew was assembling anyway. The refectory was located not far from the control center and the men were coming together there, so the Starmen and George went to join them.

In a moment, there were about a dozen men in the room. Some sat on the benches, others stood. There was palpable fear in the room, as if they knew that sudden, violent death was near.

Zip asked George, "Is this everyone?" George took a quick glance around the room.

"I, I think so, yes."

Zip took charge. "Men, listen to me. We're about to be taken captive. I don't think anything worse will happen to us, or it would have happened by now. My friends and I have come to visit Sabbath George. Just got here from Ceres and sure didn't expect this!"

George took over. He was showing more confidence now. Alone of the Z25 crew, he had never shown fear, just shock. "We'll just wait right here, men, and see what's next. I don't know who these attackers are or what they want, but don't volunteer any information of any kind. You hear me? *No information* of any kind, beyond the most basic."

The men were silent and collapsed in on themselves. They were afraid, but the panic seemed to have diminished somewhat. Outside, the five ships had landed and about twenty space-suited men had emerged. With weapons in hand, they were approaching



the dome. The leader gestured to several of them, who spread out around the dome. The others remained at the main airlock and waited. Their feet were spread in an attitude of defiant power.

"They want the airlock open, Mr. St. George," said the young man who had fled from the control center. His voice was dry and squeaky.

George said, "Can't open it. No controls. Those fools destroyed the power center. If they're coming in, you'll have to get your spacesuits on because the atmosphere is going to disappear. Make it quick before they blow the airlock by force." The men scattered. George and the Starmen went to the airlock and looked at the invaders from the inside of the dome. George said to the Starmen, "Of course, there's a backup power system, but I don't feel a compelling need to make it any easier for these strangers."

When the leader saw that there were people coming, he kicked the airlock savagely and aimed his weapon at the mechanism. As was customary, the helmets were lined up on a rack on shelves just inside the airlock. George put on his helmet and the Starmen put on theirs. The rest of the mining crew began to show up with their suits on and found their helmets. When all were suited up and the intercoms were on, George told the mining crew to stand aside. Then he told the leader of the invaders that he could enter.

The man fired a stupendously powerful beam at the airlock that melted it like ice in a furnace. In seconds, the air inside the dome whooshed out into the vacuum of space.

"Get into the ship," growled the leader of the invaders, indicating the closest of the five spaceships. "No one is going to be hurt, but I'm not guaranteeing that that situation will last. I'm not a patient man and I don't like wasting time."

"What about our belongings?" asked George.

"You won't need them. Move to the ship. Now." The voice was even and quiet but as hard as iron. Zip started the procession. He slumped down as if completely disheartened and walked like a prisoner, his eyes pointed to the ground. The others followed. The invaders kept them surrounded as they walked the

short distance to the pilot ship. Several invaders entered first and then kept watch on the prisoners as they ascended the ladder into the staging area. Once the asteroid miners were aboard, the other invaders entered their ships.

When the door was sealed, the invaders removed their helmets. The miners followed suit. The leader took a quick inventory of the prisoners, and then settled his gaze on George.

"You are George St. George," he said in a tone that knew he was stating a fact. "My name is Lather. You and your men are now prisoners of Lurton Zimbardo. I am taking you to him. As long as I've got *you*, I don't care about anything or anyone else. Don't make any trouble and I won't see any need to put anyone off the ship. It doesn't make any difference to me whether any of your men is in deep space or my guest room, but it might make a difference to you—and them."

Without turning his head, Lather addressed one of his crew. "Blaze, see that this base is melted into the bedrock."

"Yes sir," said the man addressed and left the room.

Lather addressed another of his crew. "Spelford, escort the prisoners to their quarters."

Spelford lifted his weapon and nodded in the direction they were to go. The prisoners went, under the guard of several armed men.

They were taken to a room set up to accommodate up to twenty passengers. There were niches with beds in them, and couches for use during acceleration.

"Prepare for lift-off," ordered Spelford. The prisoners sat down and strapped themselves in. Spelford and his men left, locking the door behind them. In a moment the warning signal for lift-off was given. The ship raised itself gently from the surface of the asteroid. The fierce glare of destructive laser strikes came through the quartz window for nearly a minute, and the prisoners knew that the living quarters of Z25 were being systematically destroyed.

"They're ramsquaddling the whole operation," said Sabbath George in a voice that sounded almost matter-of-fact. "Never had

anything like this happen before. This is a first.”

When the glow ceased, the ships accelerated. The Starmen and their companions felt themselves pressed into the chairs.

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The five invisible ships had been gone for over an hour, but the man in the shadow still did not move. He was on a neighboring chunk of floating iron, just a mile or two in diameter with a very slow rotation. St. George’s asteroid would vanish below his horizon in a few minutes. The man pulled the telescope up to his face plate once again and scanned the area that had been the base on Z25. There had been no movement of any kind since the ships had rayed the site. He took a few more pictures for his files. The metal and quartz plating—all signs of human presence—had been completely destroyed, melted into the rock of the asteroid. The brilliant orange of superheated rock had quickly cooled in the near-absolute zero of airless space.

*Guess it’s okay to go now, he thought. Those space buzzards are not detail men—just grab and destroy without even looking around. Lucky for me.*

The man went over to a small asteroid cruiser, built for speed in touring the Asteroid Belt. Stepping in, he sealed the airlock and pulled out a small recorder. He tuned in a complicated code and began to speak.

“Steve Cliff, reporting in to Oritz Konig on Mars Base.” Steve went on to give the date, time, and location, and a brief but thorough report of what he had seen, from the time the Starmen landed on Z25 to the time the pirates’ five ships had disappeared. He added to the file the pictures he had taken, and concluded, “Now returning to Yellow City. If you have anything else you’d like me to do, Oritz, contact me there. I don’t have to tell you I’m pretty fond o’ those boys and I was more’n delighted to keep an eye on ’em for you on this trip. Sorry this report isn’t any better. I’ll stop in and see Sim before I continue my trip back to Earth, just in case you leave a message for me there.”

Having finished the recording, he put it into a small projectile with an automatic timer to release and send the message in three hours. Then he lifted off the small asteroid and headed toward Ceres. A few minutes after liftoff, he fired the projectile. When it sent its message, Steve Cliff would be far away and no one could trace the message back to his ship. On top of that, the message was encrypted and designed to travel on the microwaves similar to those in the background of space. It was highly unlikely that this message would make anyone curious. After the message had been sent, the projectile would break down into its component parts, and the parts would scatter into the infinity of space.

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The ships had stopped accelerating and the prisoners could talk easily.

"You don't seem too upset, George," suggested Mark.

"Naw," said George. "'Course I'm sorry to lose my stuff back there, and I'm sorry for the men, but most of our stuff is somewhere else. This was a temporary base and the mine wasn't producing too well anyway. Hardly worth our time. Besides, I've learned to be content just about wherever I am. I've been around the asteroids a lot and I've learned to depend on a Resource outside myself whatever the circumstances. I know what it is to be brought low, and I know what it is to have plenty. I've been thoroughly initiated into the human lot with all its ups and downs—fullness and hunger, plenty and want. Makes little difference to me. Wherever I am, whatever happens, I'm confident. And I'm a man of prayer."

"I'm sure sorry about your friend Montezuma," said Zip sympathetically.

"What do you mean?"

"Why, these ships must be the same five that attacked him. They couldn't have found you without getting the information from Vly. So it's a good guess that they destroyed his base the way they did yours."

“Nothing of the sort!” said St. George heatedly. “I told you that *those* ships were defeated and their crew sent back to wherever they came from with their tail between their legs!”

“But this story about the ‘greegles’—” contributed Joe.

“The greegles sliced those ships up like salami!” insisted St. George. “These ships we’re on are a different lot! And besides, Monty would *never* have told anybody how to find me—not by force or threat, anyway!”

“We’re sorry, George,” apologized Zip. “I didn’t mean to upset you or cast any doubt on Montezuma Vly. You’re right—he’s not the type to give in to any threat. I must be mistaken.”

“You’re forgiven,” said St. George. He went off to see how his men were doing.

“Zip!” whispered Joe urgently. “You don’t really believe that story about the ‘greegles.’ These *have* to be the same ships!”

“I think it’s more important not to upset George. We don’t know the whole story.”

“But *greegles!*”

“What about the greegles?” asked Mark, with a slight edge of defensiveness in his tone. “Did it seem to either of you that Vly would betray a friend to save himself? And did you see any sign of advanced weaponry at Montezuma’s Castle?”

“What are you saying, Mark?” asked Joe.

“I’m saying that we shouldn’t discount an old tale just because it sounds foolish or superstitious. George knew we were coming. He couldn’t have known unless Montezuma sent him a message, even though we warned him against doing so. If he sent George a message, he wasn’t taken over by the pirates. These aren’t the same ships. These are another part of Zimbardo’s fleet sent out to find George St. George. They must have tracked him down through the message Vly sent—not because they landed on the Castle and threatened him.”

Zip looked deeply thoughtful. Joe looked incredulous.

“Mark, you can’t be serious!”

“It’s not a matter of being serious or not, Joe; it’s a matter of being open-minded.”

“George described it himself! He’s been out in the vacuum too long.”

“I don’t think George strikes me as an unbalanced man. Unusual, for sure. But not unbalanced. Not unbalanced at all.” Mark looked over his shoulder. George had his arms around two of his men and was talking to them in a low voice. The rest of them were gathered around, paying close attention to what he was saying. Already the atmosphere was one of peace. No one seemed afraid now.

Through the window beyond, a portion of the vast arm of the Milky Way spread out in its eternal beauty. The Starmen were silently wondering the same things: How long would it be before they met Lurton Zimbardo? Would he recognize them? Why did he want St. George alive?

## Chapter 6: Battle Lines

THE PIRATES’ ASTEROID swung in a smooth, private orbit about a thousand miles beyond the farthest extremity of the Asteroid Belt. Lurton Zimbardo was in his private sanctum, a well-equipped workroom with precision astronomical equipment, sky charts, and an enormous inventory of computer files. As he turned his telescanner toward the Inner Planets, he saw the spread of the Belt before him.

Countless celestial bodies moved in an incredibly slow pattern like a stately dance. Reflected sunlight glinted from oblique surfaces into the light-gathering lenses of the telescanner. When the occasional crystalline surface or frozen lake on a passing asteroid caught the radiance just right, an intense but transitory sparkling brilliance was generated, and created a pattern of astonishing beauty on the scanner’s computer screen.

Zimbardo entered a few more bits of data into the criteria of his search pattern and then said, “Enter.” Within seconds several asteroids were marked in his files. He brought their profiles up one by one.

**M253.****SHAPE: OBLONG.****MAXIMUM LENGTH: 0.683 MILES.****MAXIMUM WIDTH: 0.307 MILES.****COMPOSITION: 90.568% IRON, 6.443% TIN, 0.752%****ICE, 2.237% TRACE ELEMENTS; CLICK [HERE](#) FOR  
DETAILS.**

Other information was provided, including the asteroid's precise location and its speed of motion and rotation. Zimbardo hesitated a moment, then said, "Delete." He went on to the next entry.

**M3366.****SHAPE: ALMOST PERFECT SPHERE;****VARIATION <5%.****MEAN DIAMETER, 0.057 MILES.**

The other information was provided. Zimbardo smiled. "Ah—nearly solid iron and about 100 yards exactly!" he thought to himself. "That makes five." He told the computer to save that file, then opened the intercom.

"Gene," he said.

"Yes sir," came the immediate response.

"Contact Mr. Crass and tell him I want M3366."

"Right away, sir."

"Then call the five lieutenants up to my study at once, please. Get Kimball, Lorry, and Jenner also. Once you've called them, come up yourself." Gene nodded and activated the personal contact codes of the men Zimbardo wanted to see.

A quarter of an hour later, the ten men were in the lounge in Zimbardo's quarters. He was playing host, and pouring out a dark golden sherry wine into luxurious spun glass goblets.

One of the men lifted up the goblet so the illumination reflected from it, highlighting subtle rainbow whorls in the surface. He swirled his wine before he sipped it.

“Very nice, Lurton, and the glass here is pretty top stuff.”

“The wine came from Earth but the glassware came with the asteroid, Jeff. This place has so much in it that I haven’t found a hundredth of what it contains, but all of it is high quality.”

The men relaxed in the comfortable chairs. The chairs automatically adjusted to the body weight and shape of whomever sat in them. Soft, almost imperceptible music was playing in the background. A light fragrance in the air eased tensions and sharpened minds for thought. Zimbardo had nothing to do with creating this atmosphere—these features came on automatically whenever anyone entered the room.

“Pretty soft life you got here, Zimbardo,” sighed the man named Lorry, easing himself down into his chair. “I’m not used to this kind of comfort.”

“No, Lorry, I guess not. You don’t find too many easy chairs aboard the kind of ships you pilot when you’re transporting the Banjoman’s fillox to his customers in the Belt. But when our plan succeeds, you’ll be able to buy all the soft chairs you want. Let’s get down to business.”

Zimbardo stood before the assembled company. Behind him, taking up most of the wall, was a map of a large portion of Mars. “As I was saying when we met in the hangar assembly room yesterday, it is simply a matter of choosing an appropriate target to convince them we have the capability. What should our target be? Well here, gentlemen, are the five major atmospheric generation plants on Mars.” He turned to the map and pointed out five places—two in the northern hemisphere, two near the equator, and one in the southern hemisphere. “Each is valued at two billion solars and would take several years to replace. The damage won’t bankrupt the government, but the expense is far from negligible! Even more importantly, when they are destroyed, Starlight Enterprise’s terraformation project will suffer a severe setback—possibly as much as three to four years. Now, data gathered from analysis has shown that these plants can be removed very easily by the proposal we have suggested. Mr. Crass, do you have anything to add?”



“No, Mr. Zimbardo. I’ve checked the specs on the asteroids you’ve selected and I’ve checked progress with what Stubb is doing. If he has the propulsion units ready in ten days, we can deliver our first package to Mars in precisely two weeks.”

A muscular man in short sleeves spoke up. Since no one else wore short sleeves, everyone suspected that he wore his sleeves short to show off his biceps. “Lurton—what about the ships that went to interrogate Vly? We know five took off, and yesterday I only saw one return. No one else wants to ask about it, but I’m asking. If I’m going to risk my men and my ships on this venture of yours, I want to know what’s involved.”

As the man was speaking, Gene lowered his head and kept his eyes on the floor.

“All right, Captain Kimball. It’s a fair question. You’re right. Five went out and only one returned. None of the men was lost—the returning ship brought them all back. But four of the ships were destroyed before they could land on Montezuma’s Castle.” Zimbardo’s five lieutenants were already aware of the setback. The visitors, Jeff Jenner and Lorry, were stunned. Kimball grunted, as if a suspicion had been confirmed.

“Well?” he pressed, his face hard and demanding.

“Gene,” said Zimbardo, turning away. He didn’t like to deliver news of defeat.

“The pilots of the ships tell essentially the same story,” began Gene. “They came directly to Montezuma’s asteroid, opened communications, and insisted that they were going to land. There was no response. But within seconds some kind of energy beam came forth from Adamant, the neighboring asteroid, and sliced the four ships into small sections. It was clear that there was no intention to kill any personnel—only to destroy the ships. The crews were left floating in space. Forces of some kind we are not familiar with pulled them into the proximity of the remaining ship, where they were taken aboard. Clearly, against forces like that we are helpless. The ship returned immediately. The men are badly shaken.”

Kimball grunted again. “And Vly?”

Zimbardo answered. "They never talked to him. But we don't need him. A short time after this incident he radioed to St. George and we intercepted the beam. We'd been looking for it. Vly probably assumed that with the destruction of our landing party he was safe and so was St. George. But his call went directly to asteroid Z25. It was encrypted so we couldn't read it, but we didn't have to know what the message was to know where it went. Our other five ships were two days away from the location. They went directly there and picked up all the miners, including St. George, in a very neat operation."

The intercom buzzed. "Mr. Zimbardo?"

"Yes, what is it?" he responded with obvious irritation.

"Sorry to bother you, sir, but you asked to be informed as soon as the ships returned. The *Silver Cloud* and its four companion ships are expected to dock in approximately 45 minutes."

"Very good!" Zimbardo's initial irritation was instantly dispelled. "Tell Mr. Lather to put the prisoners into the cell block. I will deal with them later." The intercom went off and Zimbardo turned back to the gathering. "As you heard, St. George will be on the asteroid within the hour."

There were nods around the table. Many questions were asked about the destruction of the four ships near Montezuma's Castle, but there were no answers. The issue was left unresolved; Zimbardo, however, was not saying everything he suspected. He was frightened, but determined that no one would know it. He had heard of the legend of the greegles and took it more seriously than anyone would ever suspect.

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Richard Starlight's spacious office was located near the top of the highest tower on the Moon, the giant SE headquarters building located forty miles north of Amundsen City. Accessible only by two express elevators, his office covered nearly an entire floor of the tower—more than 3,000 square feet. Its walls were

treated glass, harder than any metal alloy and impervious to the constant rain of micro-meteorites, with clarity that was nearly perfect. The office was the equivalent of 121 stories above ground level, and only an observation deck and various antennae were above it. The lunar landscape was visible for miles in every direction. The pass that marked the entrance to the Field of Obsolescence was barely visible ten miles away just a little east of north.

What he called his “office” was really a combination laboratory, resource library, work and communications center, and lounge. In one corner was a huge table, made of artificial material but, apart from chemical analysis, not distinguishable from highly polished mahogany. Its chairs matched its reflective sheen. Table and chairs rested on an intricately patterned carpet that measured at least twenty by twenty-five feet. Patterns in indigo, silver, and gray, with flecks of green, crimson, and violet beautifully complemented the lunar gray visible through the windows. Not far from the table was an immense, detailed globe of the Earth, about four feet in diameter and perfectly balanced. Equally detailed globes of the Moon and Mars on the same scale were nearby. In another corner were globes of Mercury and Venus and a few other celestial bodies.

“I’m sorry to put an end to the festivities this way, gentlemen,” said Richard Starlight to the assembly. Around the table were the President of the United States and three of his advisors, among whom were Commander John Lewis of Space Command. Richard’s second-in-command, John “Rock” Rwakatare, head engineer of the Advanced Design Department of SE was also present, as were Allen Foster, Keith Seaton, and Charlie Taylor, the fathers of the three Starmen. Robert Nolan, founder of Nolan Mining Enterprises and a friend and colleague of Richard Starlight, and his second-in-command Beowulf Denn filled out the number.

On two viewscreens were stationary images of Oritz Konig on Mars, and Steve Cliff en route to the Moon from the Asteroid Belt. The time delay for Konig was a little more than fifteen

minutes, and for Cliff was about 22 minutes, so they could not actively participate in the discussion. Both, however, had vital reports to make and Richard was prepared to present them by videofile at the right time.

Richard continued. "We all expected that our three Starmen would be back with us in two days for the Reception of Honor. That will have to be postponed. Most of you know at least something of the reason why, but this urgent meeting was called to make sure that everyone is brought up to date and, more importantly, to take counsel on a course of action."

Richard summed up what had been learned about the pirates after the liberation of Mars up to the point of the Starmen's departure from Oritz Konig's office.

"Our conclusion is that, although we have 542 men in custody in Eagle City, including their captain Troy Putnam, several dozen pirates are still free. It would have taken a large facility to prepare the ships and house the men used in the assault on Mars, and it is virtually certain that a sufficient force for maintaining this operation was left at their base. We believe that this was probably a minimal number, but there may have been pirates in other locations in the Asteroid Belt or elsewhere. Moreover, as you know, one ship managed to escape from Mars during the liberation. Oritz Konig, now on special assignment at Mars Base, will make a report on what we've learned about Putnam's chief assistant, Lurton Zimbardo."

By pre-recorded videofile, SE's Chief of Security presented a brief report, similar to that which he had given to the Starmen.

At its conclusion, Richard continued. "Since the ship that escaped headed recklessly at its highest velocity toward a certain area of the Belt, we can reasonably assume that the pirates' base is situated on an asteroid not far from that area."

Nolan asked, "Why were the ships from Space Command not able to find this asteroid, or any trace of the pirates?" Robert Nolan was a man of early middle age, slight of build, with thinning hair. He was noted for his analytical mind and incisive decisions. His hard work over a twenty-year span had built a

small company into an influential corporation, and his achievements had brought him respect throughout the Inner Planetary system.

"This is what we are gathered here to reveal," Richard answered. "I'm afraid the news is quite disturbing. Steve Cliff will give us his report."

By video, Steve Cliff reported what he had seen in the area of Z25. He concluded, "So it is obvious that the pirates have a very effective radar bender. Their ships are, in effect, invisible to our standard radar detection systems."

When Steve's report was over, Richard added, "Steve Cliff was immensely helpful when we sent the two Starmen to Mars. He did us another favor by following them as far as Z25 when he preferred to return to Earth. He is on his way back to Earth now. Ortiz asked him to keep an eye on the Starmen for their own safety, and as you can tell from his report it was a very good thing indeed that he did!"

The men at the table looked grim. The fathers of the Starmen wore especially troubled expressions.

"Our battle with the pirates is not yet over, I'm afraid," continued Richard Starlight. "Their radar bender is nearly perfect. The notion of developing a technique that makes an object invisible to radar is not new, of course, but in spite of several decades of effort even Starlight Enterprise has not been able to achieve the high level of effectiveness Zimbardo's men have available to them. From these observations we draw two disquieting conclusions.

"First, we learned from the pirates we captured on Mars that their base is probably invisible to radar; it can't be seen with normal methods. It's likely that the pirates have outfitted *all* their ships with the device that makes objects invisible to radar, not just the five Steve Cliff observed. If so, their ships can be anywhere without the possibility of any of our bases or centers of civilization being aware of them until they become visible to the eye. Since all our computers track ships and contribute toward strategic battle decisions based on radar data, it is almost

impossible to guard against such pirate raids as Zimbardo's men are now able to carry out—and have already done on Z25.” Richard sighed.

“Second, and most alarming of all, it is almost impossible for the pirates to have invented the radar bender on their own. We had surmised this shortly after our first conversations with the captive pirates on Mars, but since then our computer has estimated the chance that they did so to be approximately 0.0001%. That kind of technology is beyond any earthly scientific capability. It is much more likely that they got it from some alien civilization—a highly advanced alien civilization.

“We don't have any solid information other than that, so we can only guess what level of connection there may be between any such hypothetical civilization and the pirates. At any rate, where the radar bender came from, other devices might come too—military devices against which Earth has no defense. And we have no idea when we will learn the pirates' next move, and we don't know where the Starmen are now.”

The room was silent. Everyone was stunned. When Mars was liberated they had thought that the conflict was at an end. Now they saw that their situation was more desperate than they thought possible.

After a moment, Robert Nolan spoke up. His eyes were wide and his voice was high-pitched. “Wh—, what can we do? Can't we find these pirates? Can't we just send out ships and comb the entire area of the Belt where they disappeared? Can't we...?”

Keith Seaton broke in. “Robert, believe me, if there were *anything* we could do, *anything* we could think of that wouldn't be the equivalent of running around in circles, we'd be doing it! The Starmen are our sons! Richard informed us last night that they were captured, and we've done just about nothing else but try to think of something we can do.”

Allen Foster joined in. His voice was level and determined, clearly being controlled with supreme effort. “It is impossible to do a random search of the Asteroid Belt—even if we restrict our search to the section where the hidden base must lie. We've done

the math. We may as well be looking for a black marble hidden at night anywhere in North America.”

“And invisible ships!” Nolan gasped. “The Solar System has no defense against anything like that. Why, they could come in anywhere and invade! They’d be invincible! We couldn’t even see what hit us!”

Commander Lewis spoke up. “And an alien civilization! They could have science beyond what we can imagine. Earth doesn’t stand a chance against an enemy like that!” The men were scared.

After a moment, when no one else addressed the gathering, the President spoke. “Our position is essentially the same as it was when Mars was still in the control of the pirates. Our strength does not lie in superior science or in superior numbers. Troy Putnam recently placed his trust in superior strength and technology; the unsoundness of such a hope is shown by his fall. David fought Goliath and won because his trust was in the right place. Zimbardo might have weapons and other technology of which we cannot even conceive and he might do great damage, but he is still in the wrong. Evil might have its day, but in the end it will always fall; the forces of light will overcome it as it decays from within. With that faith and that assurance, we can make our plans. Does anyone have a suggestion as to how we can meet this crisis?”

Allen Foster spoke again. “There are two issues here: finding and rescuing the Starmen and their companions, and defending our civilization from the pirates. For the first, well, we’re very hopeful that they are still alive because they were taken aboard the pirates’ ship before the base on Z25 was destroyed. They are resourceful young men—they are Starmen, after all.

“For the second, any solution I’m afraid will be long-term. We’ll have to develop a detector that uses a process other than radar—perhaps something based on gravity or light absorption. But you can appreciate the obvious fact, I’m sure, that inventing such machinery will probably take a very long time. No, I think that our course now must be entirely defensive. We are, at least,

forewarned. But I'm sure that the pirates will be making the next move before we can do anything about it."

## Chapter 7: Prisoners on the Pirates' Asteroid

"WHAT'S the word for 'walk'?" asked Mark.

"Gentrikian," answered Zip automatically.

"That makes forty-seven points for you," said Joe. "I need fifteen more just to catch up. C'mon Mark, give me an easy one—help me out."

"Okay. Do you want English to Titanian or Titanian to English?"

"Titanian to English. That's easier."

"K'intrishian."

Joe thought for a moment. Languages seemed to come easily to Mark—he could absorb concepts and find mental hooks to hang them on with no noticeable effort at all. Joe found languages far more difficult. He preferred engine diagrams and flow charts.

"I don't know!" The lean pilot blasted, exasperated. The Starmen, like the crew from Z25, were passing time as they entered the third day of their captivity aboard the *Silver Cloud*. Mark was teaching Zip and Joe some of the Titanian vocabulary he'd been working on for two years.

"This one should be easy for you, Joe, even if it isn't 'sleep' or 'eat'. The answer is just about all we've been able to do on this trip so far."

"Well, sleeping and eating is all we've done!"

"'K'intrishian' means 'wait'."

Joe grinned. "We've certainly been doing a lot of that on this outing! The past couple of weeks have seemed about pointless! Just about all we've been doing is bouncing from place to place! We blasted off from Eagle City to the Asteroid Belt and then went right back to Mars. Then back to Ceres in the Asteroid Belt. Then to Montezuma's Castle and on to Z25, and we complete



our mission just in time to get captured by the enemy! Now we're being taken to this 'secret asteroid' where Lurton Zimbardo has his base and I'll bet anything we're going right back to where we started—where we lost track of that ship we were chasing into the Belt!"

An announcement came through the intercom. "Prepare for deceleration in two minutes."

The Starmen looked at one another, then at the crew of Z25. St. George was already walking toward his acceleration couch. Each of them could feel his heart suddenly beating a little faster. They strapped themselves into their couches. Zip looked out of the window but saw nothing out of the ordinary.

A moment later, the rockets on the *Silver Cloud* ignited and the ship began to slow. About half an hour later, their speed had been reduced to a crawl and the view of the stars had disappeared. It became apparent to the prisoners that they had entered a tunnel. After a few seconds, the ship touched down and secured itself to the landing pad. The prisoners waited. No one spoke.

Minutes passed, then the door to their quarters opened. Spelford stood in the opening, with several other men behind him. All were armed.

"Time to go," Spelford announced. The prisoners were escorted single file through the ship and down the access ladder to the floor of the landing pad. They were under observation at all times by armed men in front of them and behind.

Joe reached the bottom of the ladder and turned to look around. To his right was an enormous clear wall which sealed off the landing area from the immense tunnel through which the ships had come. In front of him and to his left was a complex of charcoal-dark structures, lined with silver trim and glinting with many panels of glass. The entire area was powerfully lit by dozens of sources hundreds of feet above him. He was both impressed and intimidated at the same time.

As soon as the prisoners had debarked from the *Silver Cloud*, Spelford began giving orders.

“Move. This way. Stay in single file.”

The line crossed the field and passed through a second airlock. Leaving the field behind, they entered a large manufacturing area. Several dozen men were working feverishly at massive tables and work centers. Sparks from welding areas were visible in the back parts of the area. Flashing lights from many desks lit up the faces of men with intent gazes, whose attention was fixed on close work on numerous small circuit boards. A few workers glanced curiously at the line of prisoners, but they didn't waste time on a thorough investigation of the newcomers.

Spelford and his detail escorted the prisoners through an immense double door, down a wide passageway, and into a large elevator. The elevator could accommodate fifty men easily. When all were inside, Spelford tapped a number into the control pad and the elevator began to descend. It stopped in seconds and the door opened into an area where several corridors came together. Two small elevator doors flanked the one from which the men emerged. The procession entered a dimly-lit corridor that extended for about a hundred yards. Many doors were set into the walls, but none was open.

Spelford led the way down the corridor. After covering about two-thirds of the distance, he stopped and slid open a plain, dark portal set into the right side of the passage. He glanced into the room beyond, then stepped back and said, “In here.” The prisoners entered, and the door closed behind the last one.

George St. George broke the silence. “We're not going to be able to absquatulate from these pirate yaps very easily, that's for sure. Guess we'll have to make the most of our stay here.”

Zip strode into the center of the room and looked around. Indirect lighting provided plenty of illumination. “Clearly a dormitory of some sort,” he observed to no one in particular. Bunk-style beds were spaced around the walls. Through another door was a resting area with tables and chairs. In another room were washing facilities. On one side of the main room was a large window that overlooked the landing area and primary work

center of the asteroid.

Joe and Mark strode over to the window and looked out.

"I wonder where this St. George fellow gets his outlandish vocabulary," mused Joe aloud. "'Ripstavers'; 'obflicated'; 'ramsquaddle'; and now 'absquatulate'. I can figure out what the words must mean when he talks, but I gotta say that I've never heard them before."

"He's a puzzle," observed Mark. "I've never heard those words either, but they almost seem to make sense, as if he didn't make them up. Maybe they come from the culture of the asteroid miners."

"Well..." Joe shrugged his shoulders and continued to stare through the window. After a while he continued. "The rotation of the asteroid provides the equivalent of gravity," he said. "About what we're used to on the Moon—about one-sixth Earth. What do you think, Mark?"

"Feels like a little less to me," answered Mark. "We'll have to step up our exercises if we're going to maintain muscle tone."

"Nothing fancy, but everything we need," said one of St. George's men after a quick look around the rooms.

"For a long stay, maybe," said another.

"'K'intrishian' means 'wait', if I remember correctly, Mark," said Joe.

"That's thirty-three points for you," responded the tall Starman.

~

Time passed. From the window in the wall of the asteroid, the three Starmen looked down and saw a buzz of activity. About two dozen ships were docked on the field, and workers were still hovering around tables in the work center.

"Here comes another one," said Joe, as a spacecraft passed into view from the large tunnel that led to the outside.

"How many is that since we've been here?" asked Mark. "Six?"

"Yes, six in less than twenty-four hours," stated Zip.

The Starmen chafed under the burden of their powerlessness. They had already scoured the rooms carefully and found no sign of weakness they could exploit. Their food was delivered through an automated shaft that they could find no way of using as an escape route. They had neither seen nor spoken to anyone since Spelford had brought them to their prison.

Once again Zip looked out the window. "This place is amazing! This could not have been anticipated by anyone! It must have been quite a shock when you found this asteroid, George."

"Oh yes, I was awestruck—completely, absolutely electrified! Imagine stepping into a remnant of an astounding civilization like this. When I found it, it was abandoned. It seemed as if no one had been in it for probably thousands of years."

"Tell us everything you know about this place," ordered Zip, looking intently at the asteroid miner and drawing him over to the nearest table. Zip gently eased the miner into a chair, then turned another chair around and sat in it, folding his arms over its back and facing George. The asteroid miner told the Starmen the story of his discovery of the asteroid and how Troy Putnam had learned about it. They had already heard a brief version of the story from Oritz Konig back at Mars Base.

"Of course, I didn't know this Putnam was a bad egg at the time. He just seemed like a friendly, curious spaceman to me."

"What about the asteroid?" pressed Joe. "What have you figured out about the race that built it?"

"As I said, the asteroid was abandoned when I ran across it, but whoever built it couldn't have been too different from us. Same body type, same size, that's obvious. Look around you—beds, chairs, everything, just the way we'd make them. Their language was quite different, though. Took me a long time to learn how to use some of their stuff."

"How'd you learn your way around here?"

"When I first came upon the asteroid, the airlock was open. A huge orifice, made for spaceships, as you can tell. I came

through and landed. Went through one of the airlocks into the building portion here, where we are now, and just explored. Trial and error. It's not too difficult to get the basics down—opening and closing doors, and all that. Then figuring out the right mix of atmosphere. I had plenty of time. I got access to the first four or five stories, but I'm pretty certain the place is much bigger than that. At first, I couldn't get any further than the first few stories, but after a while I found my way around a couple of deeper sections."

"And then?"

"What do you mean, 'and then'? I got bored with it and moved on. I'm a miner, not an explorer or a settler or a scientist. There's nothing here but iron. I told a few people about it but nobody much believed me or cared until this Troy Putnam fellow I met in Yellow City. He's the only person who got excited about it, so when he asked me to bring him here, I did it, as I said. Why not? He paid my expenses for the trip, and a little more besides for my time. He was impressed with the place, as was I. Then I went looking for uranium and he went back to Ceres. Never saw him again."

Zip pursed his lips, and his brow furrowed under his red hair—a common expression for the leader of the Starman team. "This has to explain why Zimbardo was looking for you," he said. "No one outside the pirates knows as much as you about his asteroid. That didn't seem to bother Troy Putnam, but Zimbardo must consider you a threat. But I can't understand why he has taken us prisoner. Zimbardo has no heart of mercy whatever. I would have expected him just to silence you for good. Obviously he is preparing this place for some new and big enterprise and is probably occupied right now, but I think we'll be hearing from him before too long. Before that happens, I think we'd better be gone."

"Escape? You talking about escape, Zip? From here?" asked Joe with amazement.

Zip addressed St. George. "Tell us everything you know about how this asteroid works. Leave out no detail whatever.

Everything you can remember. Joe and Mark, pay close attention! We have to come up with a plan!”

~

A full day had passed since Richard Starlight had called the special meeting in his office in the towers of Starlight Enterprise. Now he sat silent and alone in one of the chairs around the great table. Suddenly he spun the chair around and stared through the clear wall in front of him. His gaze went far past the lunar mountains into the distant sky where Mars was just rising, a tiny red point.

The President had issued his commands earlier that morning. A secret communication had been issued to the commanding officers of all the bases of Space Command. A similar message had been sent to the heads of large commercial enterprises such as Starlight Enterprise and Nolan Mining Enterprise, as well as the local authorities of population centers in the Asteroid Belt and on Mars. The communication had provided what information was known about the threat that the pirates manifested. It ordered Space Command and urged the private parties to keep the information secret so as to avoid panic and to prevent the pirates from learning that their sheathing apparatus had been observed in action, and advised all parties to prepare for any attack the pirates may launch. They were put on high alert for visual attack and to be ready for instant defensive response.

In Amundsen City, Keith Seaton sat at his desk, scanning the Asteroid Belt with his telescope. His strong build filled the chair in which he sat.

“There’s Ceres,” he said quietly as the image of the Belt’s largest asteroid came up on the screen. Charlie Taylor and Allen Foster, who were sitting next to him, nodded. The fathers of the three Starmen weren’t conversing much that night, but all were greatly comforted by each other’s presence.

On Ceres, Sim Sala Bim received the encrypted message on tight beam, and felt immense sadness come over him as he read

it. “Where are those three young Starmen now?” he wondered.

In the laboratories of Starlight Enterprise’s main center on the Moon, scientists were working around the clock to devise a method by which their ships could track distant objects by sight instead of radar. Additionally, under a very rare Presidential command, technicians were working frantically under Earth’s pre-eminent astrophysicist, Stephen Hoshino, trying to devise an advanced means of detecting a ship that was invisible to radar.

The Inner Planetary system was waiting for a strike that its defenders knew would surely come—but not when, where, or how.

## Chapter 8: The Starmen Strike!

ALMOST an hour had gone by since George St. George had begun to tell the three Starmen what he knew of the asteroid. Zip, Mark, and Joe had listened intently, plying the asteroid miner with detailed questions as he continued his narrative. At last, no one had anything else to say.

“No more questions?” Zip asked. Both Joe and Mark shook their heads. Their energy level had gone up appreciably since they had sat down with George. They had become spirited, now that they were determined to find a plan of escape.

“All right, then. It seems to me that this may be easier than we thought,” stated Zip.

“You have an idea already?” asked Joe, with a slight turn of his head.

“It seems obvious that this asteroid was not intended to house prisoners. This room we’re in is not a cell block—it’s a dormitory.”

“Right,” said Mark. “Therefore the locking mechanism is not original to the asteroid’s design. Is that where you’re going, Zip?”

Zip smiled. “Keep going,” he nodded.

“Whoever made this asteroid was far in advance of our

science and it'll probably be a long time before we, or anyone else, learn how to alter their design. But the locking mechanism was most likely put in by the pirates, probably on short notice. It can't be too sophisticated a system. Again, since this is a dormitory and not a cell, the wiring is probably on this side of the door rather than in the hallway. Let's find where the pirates rewired the door. Whatever they can do, we can undo."

The Starmen leaped up and began to investigate the door and the walls near it very carefully. Now that they had some idea of what they were looking for, they hoped it would be easier to find an access panel of some kind which their previous general search had missed. Minutes passed with no result. The walls had no apparent seams, and the door was set into the framework so closely that there seemed to be no space between the door and the edge of the wall into which it slid.

"Try the floor," suggested Joe. Mark dropped down and scanned the floor minutely. Joe moved farther to the right and Zip to the left of the door, their fingers moving gently over the surface looking for some kind of irregularity.

St. George watched them with a mix of curiosity and amazement on his face. His men sat at the tables playing games, paying the Starmen little heed. Once in a while one looked up, then turned back to his game. Others napped on the sofas.

"Look here," said Mark. Zip and Joe came over to see what he had found. "What do you see?" he asked them, sitting back on his heels.

"Where?" asked Joe.

"You find it—see if I'm right," answered Mark.

Joe pursed his lips and squinted. Zip watched carefully. George appeared almost impassive, but inside his heart was beating faster.

"I see it," observed Joe after a minute.

"What?" burst out St. George, then looked almost sheepish for showing his excitement.

"The light reflects off this patch here just a little differently from the rest of the floor. It's a perfect square about, oh, fifteen



inches on a side.”

“Right,” said Mark.

“How do we open it—if it’s a panel, that is?” asked Joe. He pushed the corners, tried sliding the panel in every direction, bounced the square with his fingers, all with no result.

“Let me try,” said Mark. He laid his hand gently on top. In a few seconds there was a click and the square lifted up an inch, supported by a small, spring-loaded shaft in the center. Mark lifted the panel off and revealed a recess filled with finely detailed circuit boards. Over and around them were a few dark wires that obviously did not belong to the original design.

Joe snorted. “How did you do that?”

“Well, I thought that it had to be some sort of radiation that would open it. There were no obvious signs of physical fasteners like screws. So I figured it had to be magnetism, or light, or maybe heat. I thought body heat would be the easiest to try, so I laid my hand on it, concentrated, and made it warm, and it opened!”

“Good work, Mark, but let’s not waste time! We’re in a hurry now,” urged Zip. “What do you see in there Joe?” By now George and several of his men had come over and were watching over the shoulders of the Starmen.

“Yeah, really simple circuit. I can disconnect it in a minute even without tools and we can be out the door.” Joe reached in.

“Wait!” Zip grabbed Joe’s wrist. “Is there any evidence that the circuit is tied into a larger system, like a master computer, that would tip anyone off that the door has been opened?”

Joe peered into the aperture and carefully traced the wiring.

“Sorry, Zip. Sorry, everybody,” he said, chagrined. “You’re right. There is. But I can fix that too.” He reached in and twisted two wires together. “Okay, that should bypass the door circuit and tell the master computer that the door is still closed. I can open the door now. Are you ready?”

Zip stood up. “There are fourteen of us. We don’t know where to go once we’re free, so I’d like George to lead us. He’s been through the asteroid. Take us somewhere, George, where we

won't be found easily."

George shook his head in a big arc. "Now Zip, I haven't been on this chunk for over fifteen years. I'm not real sure where to go!"

"George, no one else has been on the asteroid at all. There's no one but you."

The asteroid miner looked down, dejected. "I don't like any of this. But you're right. Okay. We'll go out the door and back to the elevators. We'll take the one on the left. I'll take us to a floor one level down, then through a huge storeroom. On the other side are other corridors. I've been through there, and there are places to hide and more elevators to get us other places on the asteroid. After that I'm not sure. Maybe I'll remember when we get there."

"Everyone got that?" said Zip. "Stay together and move quickly." No one had anything else to say. Zip turned to Joe.

"Let's go," decreed Zip. Joe removed one end of a black wire and touched it to another terminal. The door slid open.

Outside was a scene that none of the Starmen had expected. Two pirates, dressed in their gray and black uniforms, were seated opposite one another at a small table on the far side of the corridor. The one on the right was a well-muscled, large man with dark hair, weighing well over 200 pounds; the other was blond, of medium build. He was leaning on his elbow, pondering his next move in a board game. When the door slid open, they both looked up, utter surprise written over their faces.

Both the Starmen and the pirates froze for a split second, then both sides moved at once. Mark charged for the big man and Joe for the blond. Simultaneously the huge pirate bellowed and threw the table toward the charging Starmen, scattering the game pieces. Mark stopped the flying table without slowing his pace and slammed it hard back at the pirates, legs first. The blond man managed to evade the table, but the big pirate took two table legs on his left thigh and upper chest. He groaned, and the laser pistol he had been drawing was caught behind the table. Mark quickly threw the table upside-down to his left, reached with both hands

for the pirate's right arm, and pulled the man quickly down and toward himself. His right knee came up and caught the man in the solar plexus. The pirate went down with a whoosh of air and lay still. Mark picked up his pistol.

Meanwhile, the blond pirate had screamed for help in a panicky voice, turned, and was dashing down the corridor toward the elevators. Joe took hold of the table's leg nearest him and skated the table forcefully down the corridor after the escaping pirate. It caught the man behind his left ankle as he was running. In the low gravity, the pirate turned almost completely over, his pistol flying. Joe caught up with him and delivered a quick punch that rendered the man unconscious. The entire fight had taken less than ten seconds.

Zip stepped into the corridor calmly. "Did either of them have a chance to set off an alarm?"

"I think this one did," responded Joe, pointing to the fallen pirate at his feet and picking up his laser pistol. "He had about five seconds while he was running to send an emergency call."

Zip grimaced. "That was stupid. I should have thought that they would have a guard. I just didn't think of it, with all the electronic gadgetry around here and their obvious need of manpower. My fault. Sloppy thinking. But it's worse to stand here and feel badly about it. We've got to disappear fast."

"This way!!" shouted George and began to run toward the elevator. The asteroid miner who had previously been so sedate and hesitant now led the way. The Starmen followed him and the ten others brought up the rear. George reached the elevator door and pressed the panel. In seconds a door opened and the men hurried in. Just as the last man rushed through the opening and the doors began to close, the elevator doors in the next shaft opened and a troop of pirates poured out, guns drawn. In front of them they saw their two comrades lying motionless in the corridor, table and chairs in full disarray.

"Come on!" commanded their leader, leaping forward and turning toward his men to enforce his order. His eyes opened wide as he saw the doors of the adjacent elevator closing on the

escaped prisoners. The Starmen's last view of the scene was the pirate leader's shocked face, mouth agape, pulling his laser pistol up to fire. Then their doors sealed and they began to descend.

Almost instantly, it seemed, the door opened. The only light came from the interior of the elevator. It shone on an uncountable number of enormous crates, stacked three high and set in rows extending beyond the range of the minimal light. Though the walls of the room could not be seen, there was a distinct feeling that the open space was huge—larger than a gymnasium, perhaps larger than a stadium. No one said a word. No one moved.

Suddenly Zip grabbed the laser pistol that Joe was carrying and leaped out of the elevator. He whipped around and fired at the control panel next to the large central elevator. The panel flared red for a second and then sparked like fireworks. Zip released the activation trigger on the pistol and stepped back. A few pops echoed in the darkness against a background of the soft sizzling sound of molten metal dripping down the wall.

Zip ran to the third elevator, calling out, "Move away from the elevator! Mark, destroy the controls!" Simultaneously Mark and Zip demolished the control panels of the remaining two elevators. When the controls were obliterated, the lights in the elevator went out and the fourteen erstwhile prisoners stood in the utter darkness of the immense chamber. The sole illumination was provided by the fading red glow of the superheated panels that had been their targets and a few bright orange dots in the gaping holes that remained.

"I don't know if that'll prevent the pirates from stopping at this floor, but every elevator on Earth I know about can't move beyond any floor where the controls are inoperable. George! Where do we go?" Zip asked.

"Does anyone have a light?" responded the asteroid miner. Just then a pale glow like early dawn rose around them and filled the chamber.

"What's that?" cried a frightened voice.

"Automatic lighting, probably," answered Joe. "When

someone moves far enough away from the elevator, or when its light goes out, the automatic lighting goes on.”

“Follow me,” directed George. He led the procession to the right of the elevator shafts. On one side was a blank wall at least 25 feet high. On the other were row upon row of crates. Each box had a mark on it, but none of the Starmen could recognize its meaning. Far down the rows was the opposite wall of the chamber, at least 200 yards away.

George St. George was hurrying, leading the band of fourteen onward. There was no opportunity for conversation, but Mark stepped up close to Zip, who had taken the last position in the march.

“Think what this place is, Zip!” the mystically oriented Starman breathed, his eyes alight with excitement. “This was made by an intelligent, extra-terrestrial race we’ve never heard of! The Titanians certainly didn’t make it! And whoever made it was shaped just like us! As George said before, the controls, the beds, the chairs—all are designed for people like us! Same size! And *imagine* what must be in these storage units!”

“I have been thinking about it, Mark,” answered Zip. “I’ll want more time later to sift through my impressions, but there are too many questions here to deal with at the pace we’re going.”

“Of course, but think! Who made this place? How big is the complex? When and why did they abandon it? Where are they now?”

“Yes—and above all, what else will we find in here?”

Just then the screech of tortured metal sounded loudly throughout the chamber. Everyone turned and stared back at the elevators, where the sound was coming from. A spot on the left door of the central elevator began to glow red, then orange, then white. Iridescent metal began to spew forth in chunks. Then a spherical mechanism about the size of a basketball shot through the hole. A few bright green and yellow lights the size of small coins lit up its dull silver surface.

Zip’s blood ran cold. “It’s an airbot!” he cried. Zip had never

seen an airbot before, but he knew what it was: an aerial reconobot, an armed robotic flying device which, among other uses, could be programmed to track down fugitives, drawn by their body heat. Zip and Mark lifted their laser pistols and fired simultaneously. Their beams lit up red dots on the surface of the flying ball but scattered harmlessly, as the Starmen assumed they would. The airbot quickly oriented itself to the escapees and began to fly toward them.

## Chapter 9: A Vision in the Night

“RUN!” SHOUTED ZIP FRANTICALLY. “GO! Scatter! Move!” He ran forward to the closest aisle between the stacks of crates, wheeled right, and sped down the narrow space. He heard the quiet, efficient “zzap” sound of the airbot’s disabling beam, but apparently not directed toward him yet. Desperation powered his legs and they pumped at peak speed. He didn’t know where the others were or what they were doing. Someone else was racing behind him but he didn’t stop to find out who it was.

It was not cowardice that inspired his flight, but the desire to preserve the team. Scattering and flying gave a slight hope that some of the men might escape the relentless search of the airbot—or at least put off the inevitable. The rotation of the asteroid provided artificial gravity, but it was low enough to enable the men to move quickly, covering a lot of distance as they ran.

“Zzap. Zzap,” he heard again, more distant this time. He came to the end of the aisle and had to slow to keep from slamming into the wall in front of him. He reached out his left hand and grabbed the corner of a crate to help him execute the turn. As he made the quick right angle twist at the end of the row of crates, he glanced behind him with his peripheral vision. Joe was close behind him and several yards farther away were two of the miners. Even as he looked, he saw the airbot fly over the crates into the aisle he had just cleared, missing the ceiling by

less than a foot. With the hated “zzap” sound, it fired one beam toward the miner at the rear of the headlong retreat, and the man went limp and collapsed. His momentum carried him forward several feet before he stopped moving.

Zip saw it all in a split-second as his inertia carried him out of view. He looked forward again and sped down the aisle; after passing a few rows he turned again to the left. Far ahead of him he saw the elevator door with the bulging rupture through which the airbot had burst into the warehouse. Suddenly the airbot flew over the stack of crates to Zip’s left and appeared about fifteen yards in front of him. A feeling of panicky horror surged through Zip as he saw the airbot re-orient itself in his direction.

All at once every point of light on the airbot went out and it hung motionless in the air. Then it sped back to the elevator door as if jerked by a cable. It smashed through the hole it had made and flew into the shaft. Instantly there was a dull “whump,” more felt in one’s tissues than heard aloud. A bright light came through the opening like a spotlight, then faded.

“What happened to the airbot?” Joe’s amazed voice behind him asked the question that was in Zip’s mind.

“Let’s go,” said Zip. “Let’s find out who’s down and carry them away.” Both the Starmen were breathing hard, but quickly returned to normal as they paced the aisles. In moments they had assembled those whom the airbot had not found. Only four men had been disabled by the airbot’s beams.

“Take us out of here, George,” ordered Zip. His voice was quiet but carried the authority of leadership that people welcome when there is a crisis. Using the fireman’s carry, eight men easily transported the four who were unconscious.

George St. George turned without a word and led the way. Everyone followed. St. George came to the end of the walkway and turned to the left around the last row of storage units. On his right was a bank of elevator doors, some large and some small. He came to the first one and with his hand shaking pressed some numbers into a control panel. Nothing happened.

He looked up to Zip with a countenance marked with

anguish and pleaded, "I can't do it. My fingers won't work. Mr. Foster, you press the numbers, please." Zip stepped up to the panel. As the asteroid miner called out the directions, Zip pressed the buttons.

"Top center. Right center. Top right. Top right again. Bottom left. Center. Sorry, I'm a little shaken up."

"That's okay, George. I think we'll be fine now." The elevator door opened and all the men stepped into the conveyance. The door closed. George reached out and pressed one button. The elevator began to move—not down or up as the men expected, but *away* from the chamber where they had fought the airbot.

"What's wrong with these men?" asked one of the miners. "They're completely unconscious and their arms and legs are swinging around like they're puppets or something."

"They're just out temporarily, not hurt," answered Joe. "Airbots disrupt certain neural connections to bring on sleep and complete relaxation of all muscle functions. I'm not sure how high the airbot's beam was set, but I'd guess pretty high. They'll probably sleep for several hours but they'll be fine when they wake up."

"What did you do to that machine that was chasing us?" asked another of St. George's companions.

"I didn't do anything to it. I don't know what happened to it," answered Zip. "I suppose it malfunctioned. Lucky for us." Joe and Mark both glanced sidelong at Zip, then looked away. The Starmen knew that whatever had happened to the airbot, a malfunction was not one of the possibilities.

Another of the miners spoke up. "I've never been on an elevator that moved horizontally before. Where are we going, George? This transit is taking longer than just moving between floors."

"The elevators inside this rock can move in just about any direction except slantindicular. If I remembered accurately, this one'll take us to a control and information center of some kind. I don't know where it is in relation to where we started, but we



should be safe there and if I don't forget where we come out, I can always get us back to the warehouse if we want to return."

The elevator came to a stop and the door opened onto darkness. As before, the elevator light illumined a small space, in which the men could see a few counters. When the first passenger debarked, soft lights went on. The illumination revealed a room of about 2,000 square feet, filled with viewscreens, computer stations, cabinets and shelves, tables and chairs, and a few sofas. At least a dozen doors led from the room. The four unconscious men were laid carefully down onto the sofas.

"What is this place?" Zip asked St. George.

"Haven't any idea, Starman. I don't mind pushing buttons at random when it comes to elevators, but you won't find me playing with any machine I don't understand. I don't want to find the ejection seat or rocket launchers by accident."

"What do you think, Mark, Joe? Let's look around here." The Starmen began to examine the keyboards and control systems spread throughout the room. There were symbols written beside most of the controls, but none of the writing was recognizable.

"Alien writing," observed Mark. "I'd sure like to know what it says."

Joe was at the next console, thoughtfully pressing buttons, but there was no response.

"We need to find food and water," said one of the others.

"Right," said Zip. "Everyone check through the shelves and cabinets. Open the doors, too, and look through, but don't go anywhere." Zip didn't speak aloud what was on his mind. The workings of the asteroid, no matter how technologically advanced, had been abandoned for probably thousands of years. There could be no water or food anywhere except where the pirates were. The Starmen and miners may have escaped captivity, but their freedom would do them no good until they found food, water, and a spaceship. Success in finding even one of those items without being recaptured was highly unlikely. And

even if they could board a ship, escape from the asteroid was just about impossible. He wondered how long it would take before someone else realized these things and voiced them.

"There's nothing, Mr. Foster," said one of the men after everyone had searched thoroughly.

"Mm hmm," Zip nodded. "Well, let's sleep and start again in the morning. Maybe some of us can go back to the warehouse and open up a few of those crates. There may be food and water in some of them. Others can investigate some of the passages that lead away from here."

The men arranged themselves around the room and lay down. "I think I found the light switch, anyway," said Joe and pressed a button next to one of the doorways. The room became dark.

~

"I assure you, Mr. Zimbardo, there was nothing wrong with the airbot," asserted a large man, standing before the pirate leader with a half dozen of his partners. "I don't know what threw it back into the elevator shaft and I don't know what made it explode—but there was nothing wrong with it. The prisoners must have done something to it."

"These prisoners are more than asteroid miners! None of St. George's men has the capability of knocking out two armed men the way those two were knocked out. None of them has the know-how to disable an airbot!" Zimbardo turned to his chief control officer. "Gene! Get me Lather right away. Tell him to bring up all information he has on the prisoners he brought in from Z25. Tell him to bring especially the video-record of the prisoners." He turned back to the others. "You're dismissed!"

Soon Lather appeared with a handful of records.

"Let's see the video-record first," said Zimbardo, and pushed his computer a little closer to his lieutenant. The man inserted the disk. In seconds, a view of the prisoners appeared on the screen, each one shuffling by as they entered the *Silver Cloud*.

When all the prisoners had passed by, Zimbardo turned his

head down in disgust. Lather opened a file and brought out another disk. "I've got—" he began.

"You *fool!!*" spat out Zimbardo through gritted teeth. "I don't need to see any more! I know who we've got now! How could you miss seeing that the three Starmen who completely destroyed our plans on Mars were your passengers for three days! *How could you miss it??*" He was shouting now. "*They've been on the news for two weeks! How—*" Zimbardo paused and tried hard to get control of himself. "They were our *prisoners!* — and now they've escaped! They're loose inside this asteroid, and we don't know where!"

"But sir," inserted Lather when Zimbardo paused to take a breath and clutch the air. "There aren't many places they can hide. There's not much to the inside of the complex—only five floors."

Zimbardo turned to the ship captain. With words that smoldered, he said, "The complex of this asteroid is far larger than you think! I have barely begun to explore, and St. George knows more than I do!"

Back in control now, Zimbardo punched his desk communicator. "Gene! Get a search party together and have them scour every part of the asteroid they can find." He filled in the details about the Starmen. But he knew that neither the miners nor the Starmen would be found. With George St. George leading them, they could be anywhere—anywhere but where his men would be able to search.

~

Mark came out of a deep sleep into a light doze. He knew he was sleeping, but he was also mindful of his surroundings. It gradually washed through him that he was hearing voices. Two voices were conversing in very low tones, far away. He had a feeling that the air was thick and the sound had to struggle to get to him. He became aware of his eyelids, and they fluttered. Fully conscious but deeply relaxed now, he slowly opened his eyes. He

saw only darkness, but it was not absolute.

He turned his head slowly to the left. Through an open door, about twenty feet away along a corridor were two tall, vaguely humanoid beings wrapped in shadows. Mark's heart leaped and began to race, but outwardly he showed no trace that he was alert. His eyes narrowed in an attempt to see more clearly. He knew instinctively that the creatures were alien. They walked in utter silence and stepped into the room. Mark lay frozen. They looked around for a few seconds, then went back into the corridor to the place where he had first seen them. They manifested no ill intent toward the sleepers.

The figures began conversing in low voices. Mark sensed a deep sadness in their tone. He strained to hear what they were saying, what their words sounded like.

Suddenly he heard something that sounded familiar. "A coincidence," he thought to himself. They couldn't have said "Zimbardo". After several more exchanges, one of the figures pressed a series of buttons on the wall, next to a blank screen. It came alive with a dull silver glow. Bright green lines appeared in the configuration of a map or blueprint. Mark strove to see as well as to hear. Slender fingers pointed to one part of the screen or another as the conversation continued.

Then he heard it again, this time clearly. "Zimbardo". Mark lifted his head a little and turned so he could observe the screen better. *A plan of the surface control center*, he thought. He recognized the floor plan by its telltale great doors through which the prisoners had been marched.

The scene changed as one of the figures pressed a button. A series of diagrams appeared, diagrams that indistinctly suggested a power plant to Mark. One of the tall figures began talking animatedly, pointing to various locations and repeating the word "Zimbardo" frequently.

Suddenly Mark understood what was going on: the aliens were talking about shutting down the power plant! Mark strained to get a closer look at the diagram they were examining. *The aliens!* His mind raced. *They must be the builders of this base! Shutting*

*down the power plant—why, they must want to stop Zimbardo! They're on our side!*

Then the other figure spoke up. He seemed to agree with the animated one, but his voice had a sorrowful tone to it. He pressed a few buttons on the screen and a picture of a warship appeared. As the alien pointed to the ship and talked, all the life seemed to drain out of his companion and he began looking hopeless and despondent. He turned the screen off.

Mark didn't understand—what was that ship? Why did it bring such hopelessness?

As the panel went dark, Mark realized with a crushed heart that, for some reason, the aliens were not going to deactivate the power plant after all. He buried his face in his hands. Something was stopping them, something having to do with the spaceship that had appeared on the screen last.

Mark looked up and saw that the figures had vanished!

## Chapter 10: Both Sides Move

THE GREAT AIRLOCK on the pirates' asteroid opened. From the depths of the abyss five ships came forth. Emerging from the stone tunnel, they moved into formation and then headed for the Asteroid Belt. Lurton Zimbardo's lieutenant Crass held the authority over the small fleet. Each ship was sheathed with the radar bender, making it invisible to the normal means of detection used by Starlight Enterprise, Space Command, and other Earth-based entities.

As the ships came into the Belt, Crass gave the command to the other four pilots. "The target asteroid has been located. Proceed with the destruction of the sats." The sats were small, unmanned electronic satellite observers, distributed throughout the Asteroid Belt to aid in research and navigation. They monitored movement in the Belt and provided constantly updated information on the location, speed, and direction of major asteroids.

The four ships moved into pre-determined areas in the quadrants around a small, heavy, black, iron asteroid that was speeding smoothly along on its course.

Crass stood on the deck of his ship and gazed out at the small asteroid. He spoke as if to himself. "There it is, the first of five surprise packages for our beloved Mars." The pirate leader waited patiently for the pilots of the four companion ships to report back. He expected that their assignment would take about 45 minutes—maybe as long as an hour. The first report came in 42 minutes later.

"Mr. Crass, this is Slant. We located three sats in quadrant two and destroyed them all." The other reports came in only moments later. A total of fourteen sats had been located within 600 miles of the asteroid where Crass was waiting, and all had been destroyed. Crass opened the intercom on his own ship.

"We're clear. Go to it."

Over a dozen space-suited men spilled out of the airlock. They had been waiting for the order from Crass. Each carried a large crate, nearly weightless in the Asteroid Belt. They maneuvered easily through space and floated gently to the surface of the asteroid—a dark 100-yard wide clump of dirty rock. Immediately the men began to distribute the crates evenly over the surface of the rock.

The grim, forbidding, pocked asteroid became the site of frenzied work. The crewmen removed sheet after sheet of dark metal from the crates and fastened them to the floating chunk of iron. Tiny flames showed where the irregular metal of the asteroid was being shaped to fit the plates the pirates were anchoring to its surface.

In one hemisphere three other men were attaching power and propulsion units. They sank holes several feet deep and inserted tubes, fuel tanks, and a control mechanism. At one place near the asteroid's equator a technician was installing a communications unit.

The four companion ships had returned and remained on guard about a quarter of a mile from the asteroid. In less than

two hours the work on the asteroid was completed and the crewmen reentered their ship.

"Take us home," ordered Crass. The five ships left the Belt and began the quick journey back to their port. Crass smiled most of the way back.

~

On Mars in the communications tower of Eagle City, technician Mel Golden was puzzled. Some of his data had just dried up. Mel was responsible for monitoring the sats in a large segment of the Asteroid Belt, and a section over a thousand miles in diameter had gone dark. He called to his superior.

"Will, I've got something curious here." A slender, middle-aged man with long gray hair walked over to the console.

"What is it, Mel?"

"Look at this. You asked us to report anything out of the ordinary. Well, occasionally one sat will malfunction, but it looks as if at least a dozen have stopped reporting all at once. I haven't plotted out the details yet, but there's an entire section of the Belt where nothing's happening."

"When did it start?"

"Just a moment ago. So whatever occurred out there happened about..."—he thought for a second—"about eleven minutes ago."

"Thanks, Mel. This could be the surprise we've been waiting for. I'll report this immediately." Will went over to the master communicator in the tower and sent a top priority message to Space Command's headquarters on Mars, describing the situation. Space Command headquarters forwarded the information to its centers on Earth and the Moon, as well as to Oritz Konig, SE's Head of Security in Mars Base.

Konig's report to Richard Starlight included these words: "It looks probable that the pirates have taken some sort of action in the Belt. There are no population centers of any size within 10,000 miles of the place, and no known solitary miners. It's a completely dead spot, and sats are spaced very thinly there. Yet

fourteen sats in a sphere at least a thousand miles in diameter were put out within a ten-minute period. No natural phenomenon can explain that. Space Command has the closest ship, but it won't get to the site for a little more than 22 hours. The nearest backup ship is more than three hours after that. SE doesn't have a ship of any kind at all within four days of the site, so we'll have to depend on Space Command for the first reports."

~

"Wake up! Everybody wake up!" Starman Joe Taylor was shouting.

"What is it? What's wrong?" Voices came from several men, jerked awake by Joe's outburst.

"Food! There's food here!" he burst out. "And water! Someone brought us food and water! Lots of it!"

Within seconds everyone was up and crowding around Joe. Now that he had roused his companions, he was bent over a half dozen large boxes, one of which was partially open. He reached in and took out a container filled with fruit. He handed it to one of George St. George's men, reached into the box again, and withdrew a vessel with water in it. It had a spigot on it as if it were made for traveling. The men began passing it around, drinking deeply. Joe dug in again and brought out another box. He opened it and held it up so that others could see. It contained several layers of items like large crackers.

"Where did it come from, Joe?" Zip asked.

"I don't know, Zip! I woke up before anyone else and noticed these crates. I jumped up, looked around but didn't see anybody. I opened the first one and saw the fruit. That's the whole story."

"You don't know it's safe! You took a chance, Joe!"

"What kind of chance, David? Where were we going to find water, much less food? We were done for without this."

"Not too much of a chance, I think, Zip," whispered Mark to the red-haired Starman. Zip turned his head and looked at Mark



curiously. "The food's okay. Let the men distribute it and I'll tell you what I know."

"Okay," Zip nodded. He turned to George. "Let the men take the crates apart and see what we've got here. We'll eat and then we'll make plans." George took over operations while the three Starmen stepped aside.

"What do you know, Mark?" asked Zip. Mark told the other Starmen what he had seen in the middle of the night.

"Hmmm. Hard to credit it, that the original builders of this wonder are still here," mused Zip. "Why would they let Earthmen come in and take over? I gather from what we've learned and what we've overheard that the pirates have been active here for over a dozen years, and George found this place over fifteen years ago."

"The pirates haven't really taken over, Zip," said Joe. "It looks as if they haven't gone beyond the first few levels! Something's kept them out. Only George was able to get beyond the floor where the warehouse is. Maybe that's why Zimbardo wanted to find him and keep him alive. George doesn't know too much about this, this, I don't know what to call this place, but he knows more than any human living."

"Whatever the truth is, we have some friends," contributed Mark. "They don't want to be seen, but they'll help us. I'll bet a golden asteroid that they're the ones who destroyed the airbot. I think we need to be ready to see what happens next."

"You're right, Mark," said Zip. "We'll have to be prepared to move." The Starmen went back to the group. Everyone was seated on the floor or on chairs, eating a welcome and refreshing breakfast. The four men who had been rendered unconscious by the airbot had benefited from a good night's sleep and were back to normal.

Mark reached into one of the crates and took out one of the items that looked like a large cracker. He saw that several of the miners were eating them. Zip had also taken a bite out of one and was chewing thoughtfully.

"What do you think of these crackers?" Mark asked.

“Survival food,” opined Zip. “The fruit is delicious, though.”

When everyone had finished breakfast, George St. George asked, “What should we do now, Mr. Foster?”

“I was just going to ask you the same question, George,” answered Zip. “Let’s get the men together and make some plans.” George called the miners together. Zip delivered a short speech, informing them that he, Joe, and Mark were Starmen and gave a brief summary of their assignment. With a nod, Zip asked Mark to tell what he had seen during the night. Then a number of men began to ask questions.

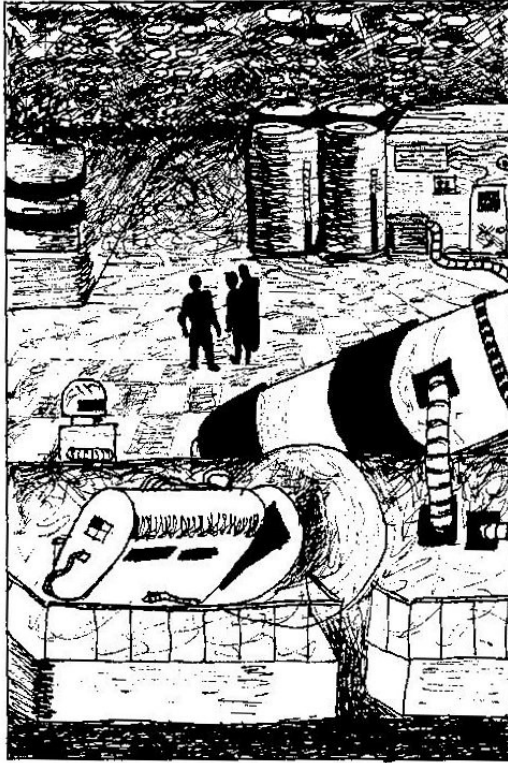
All at once the room dimmed. The voices stopped suddenly. After a few seconds, one of the corridors lit up with a soft, pleasant light. “That’s the way we go, I think,” said Zip. “Pack up the food.” The contents of the remaining cartons were distributed among the men and Zip led the way. He felt more hopeful than he had since the Starmen had landed on Z25.

The corridor extended for several hundred yards in a straight line. Many doors and other passages led off in different directions, each marked with one or more figures, none of which was familiar. The passageway was plain and utilitarian. After more than five minutes of walking, the men came to an intersection of passages in a large, faintly illuminated room. The lights in the corridor faded behind them. Across the room was a row of elevator doors. A row of lights lit up over one of them. Zip strode boldly across the floor to the elevator that had been indicated, and the others followed without a word. When he was within twenty feet of the door, it opened. After the men entered the compartment and laid down their burdens, the door closed.

On a control panel, one light gleamed and Zip pressed it. When he had done so, another light went on. He pressed that one. After he had pressed six lights, no more came on, and the elevator began to descend. After about a minute, the movement stopped and a door behind the men slid open, opposite to that through which they had entered. The men turned and inhaled sharply.

“Oh man!” exclaimed Zip, but no one heard him.

In front of the men was a power plant of impossibly immense size, in dusky darkness. There were low murmurs as of engines pulsing far away or of winds passing through trees, but they were quiet sounds. The ceiling was out of view, lost in blackness above them. A seamless iron floor, perfectly level, stretched out before the men as far as they could see. The left wall was beyond their vision; the right wall was about thirty yards away. Lights were located sparsely throughout the facility.



*In front of the men was a power plant of impossibly immense size, in dusky darkness.*

Gargantuan tubes, gleaming silver in the lights and ribbed like a torso of a dragon, snaked through a heavy latticework of girders. Silver pipes a foot in diameter ran by the dozens through the open spaces. There were catwalks, elevators, and enclosed spiral staircases in strategic places. Great metal containers bearing dials and lights of various colors took up much of the space. “Go,” said Zip. His voice came out as a whisper, which he had not intended. He swallowed and said it again, a little louder this time. “Go on, move out. It’s okay.” The men stumbled forward, filled with awe so overwhelming that it paralyzed their vocal cords.

Finally Joe caught his voice. “This is *great!* Wow! *This is GREAT! FANTASTIC!!*” He pushed through the miners in front of him and ran forward about twenty feet. He shouted as loudly as he could. “*HEYYY!!*”

There was no echo. His yell disappeared as if it had been damped. He suddenly felt chilled and afraid. He turned back to the others and rejoined the crowd. He sidled over to Mark. “This place is great,” he whispered with a smile. Mark’s eyes were upturned and shining with appreciative wonder.

Zip moved to the front of the company. In a quiet but determined voice he said, “Let’s go. We’ll just follow the main aisle, straight in front of us.” He began to walk and the others followed. “Don’t forget the food,” he threw over his shoulder. Two men turned back to retrieve their supplies and then ran to join the others.

Joe moved up to the front and walked next to Zip. The Starman leader was setting a brisk pace.

“Isn’t this place fantastic, Zip? Just think of the people who can build a thing like this!”

“I am thinking of them,” answered Zip. His brow wore the characteristic furrow that showed he was not completely at ease.

“What’s wrong?” asked Joe, as if he hadn’t a care.

“Something bothers me. Our unseen friends, if they are the ones who built and maintain this asteroid, are highly advanced technologically—far in advance of anything we’re likely to

achieve for centuries. But from what Mark told us, it's obvious that they're afraid of something. I can't see that they'd be afraid of Zimbardo and his cronies. They're afraid of something else, something we don't know about yet—and that makes *me* afraid.”

He continued his fast pace and Joe kept up with him, but Joe's eyes glanced into the shadows as they walked.

## Chapter 11: An Asteroid is Missing

THERE was a breeze. A very light breeze, a mere breath. Mark could feel it on his cheek, just a slight chill that was pleasant. He had not felt air moving since he had been on Mars.

“Surely, the air cannot move in here,” he thought to himself. He lifted his eyes upward. As he expected, the lights failed before they revealed the ceiling immensely far above. “How far?” he wondered. “Half a mile? A mile? More?” The lights looked almost like stars, placed in the strategic joints and balconied work areas of the monstrous latticework.

The refugees from Lurton Zimbardo's prison had been walking through the power plant for some time—long enough to have covered at least a mile, and probably closer to two. Though the surroundings were obviously nothing more than the power station of the asteroid, the men were as hushed as if they were in a cathedral. They were small figures in an enormous place, reminded of their smallness and overwhelmed with a sense of the numinous.

Mark sifted through his memories to a time when he was a child of about six, and his parents had brought him to Carlsbad Caverns in New Mexico. He had stood in an immense room below ground, large enough to contain several football fields. He had exulted then, identifying for the first time his restlessness inside, his search for something larger than himself, something that could fill a universe.

He spoke aloud to no one in particular. “When I was in Carlsbad Caverns about a dozen years ago, the ranger told us that

the temperature inside the caverns was constant. This is like that.”

“Sure,” responded Joe. “This is a kind of cave. Look at the floor. Perfectly smooth, like glass. Artificially shaped, of course, and sealed, but it is the substance of the asteroid—no manufactured flooring. We must be in the deepest part of the complex here. I feel almost as if we are on the bottom of an ocean.”

“Joe! Mark!” called Zip from the front of the procession. The men stopped walking and the two Starmen joined Zip. “Look at that,” said Zip, with a lift of his chin.

A computer screen about four feet square was set into the side of a huge, gray fabrication of metal, shaped like a cube at least fifteen feet on a side and made of thick plates held together with rivets. Dozens of pipes in a tremendous variety of sizes came into the cube and extended away, disappearing into the dark distance. Some were the diameter of soda straws and a few were large enough for a man to crawl through. Most were as thick as a man’s wrist.

Mark stepped up to the screen at once. Below it was a keyboard without markings. He pressed the button which was located in the same place on the board as the button he had seen the midnight visitors press to activate their screen. A few buttons lit up with tiny green lights, but the screen remained black. He tried a few more buttons, but there was no response.

“Nothing doing. If you’d like to take a break here, Zip, I’ll try a few more combinations. We’re so far away from the surface of the asteroid, I’m sure Zimbardo will never find us now.” When Mark said “Zimbardo”, the screen flashed briefly on each syllable.

“Hey!” exclaimed the Starman. The screen flashed again. “Zimbardo!” he said again, and the screen repeated its performance. “It’s voice activated! And it recognizes Zimbardo’s name!” Mark tried a series of standard commands for voice-activated computers, but got no response to any words other than “hey” and “Zimbardo”.

"Take your time, Mark; I don't think we're in a hurry down here," said Zip. For half an hour, Mark tried voice commands and combinations of keyboard strokes, but made no progress.

"Not a surprise," he muttered to himself as he worked. "I'd be stunned if this thing recognized English."

"This place is oppressive," said one of the miners, after a long silence. "I don't like being closed in by darkness."

"Right," said another. "On the asteroids we can see for thousands of light years, but inside here it seems as if life is swallowed. I feel as if I'm in something's stomach."

"Starman Foster," said George St. George. "I think we had better move on. We need to come to the end of this giant room and get back to light and living quarters of some kind. With all this excitement we've had, I think the men are just about completely exfluncted."

At this strange word from St. George, Joe turned, looked at Mark, and lifted his eyebrows momentarily. Mark smiled. Zip paused a moment and looked into the distance, then nodded.

"Okay," he agreed. "This room can't go on forever. Let's find the end of it."

~

Lurton Zimbardo was in the control center of the asteroid. A small group of his most trusted assistants stood silently by. Through the wall of glass on his right he could see the cavern where the pirates' spaceships were anchored to the landing field. Five of them were out on assignment in the Belt. As the work crew on the asteroid was able to produce sufficient sheathing, power, and propulsion units, a space crew was assigned the task of outfitting the asteroids that Zimbardo had previously chosen.

The first, under the leadership of Crass, had returned that morning. Another had gone out almost immediately afterward and one more would depart the next morning. By the end of the following day, the last two crews would be launched.

Crass' assignment had included the destruction of the sats while he performed his task. Now that the pirates knew how easy

and fast it was to complete the work, they did not bother to destroy the sats in the remaining four sites. Zimbardo knew that the destruction of the sats would alert Space Command, but the authorities would not be able to stop the project before his ships returned. Once they learned what he was doing they would expect that he had only one asteroid to command. The remaining four would be a shock to them and give him, Zimbardo, a powerful psychological edge. He would need it for his last demand. Even his most trusted lieutenants had no inkling of the enormity of his last play.

“Now in contact with G670,” uttered Zimbardo, referring to the asteroid that Crass and his crew had rigged. The screen was lit up before him. “Two minutes and four seconds to go from right...now!” A countdown clock was set at his left. The pirate captain checked his figures one more time. He had plotted the orbit of Mars, the thrust and direction of the power units on G670, the speed of the red planet in its course and its rotation, the anticipated acceleration of the asteroid, and the time delay involved in making adjustments to its course. He had checked his computations half a dozen times and then commanded three others to do so.

Three, two, one... read the countdown clock. Zero. Zimbardo pressed the button. He remained motionless for at least ten seconds. Then he sat back and exhaled loudly. He had not noticed that he hadn’t been breathing. Then he turned and smiled broadly to his audience.

“Five and a half days from now, everyone in the Earth-Moon-Mars system will know who we are!”

~

Ortiz Konig was making another report to Richard Starlight. “The Space Command ships came onto the site and found no sign of human presence. They quickly replaced the sats, got them activated, and then checked data. I don’t know how to explain it, Richard, but an asteroid is missing. Other than that, there is



nothing different in the area of the Belt that had gone dark, but obviously the pirates have done something with an asteroid. It's not a very big one—only about 100 yards in diameter, maybe a little more—but it's vanished."

~

The Starmen and miners had been walking more than three hours, and covered a distance of about ten miles.

"A wall," announced Zip. "We've come to the end of it at last."

"You'd think that a race that can make elevators go sideways could have come up with a way to traverse this gymnasium quicker and easier than walking," grumbled Joe.

"Didn't I hear you say that this place is great?" inquired Zip.

"It is. Back then, I meant 'great' like 'magnificent'; but now it just feels like 'great' as in 'really big'."

The company came up to the wall. There was a bank of elevators in front of them and several sets of doors to their right. In a large open gathering place, there were many platforms like flat beds, with rods coming out of one end and sticking up perpendicular to the beds.

"Joe," said Mark, investigating one of the beds. "Here's your easier way to travel. These things must be some sort of dolly or truck. I saw a lot of them where we first came out of the elevator, but I didn't recognize them."

"And we didn't know how big the room is, either, so we didn't look for means of transportation," added Zip.

"No wheels," said Joe, peering at the apparatus, "and doesn't need them. Magnetic, probably, with this iron floor. Man," he said with exaggerated disgust, "we could have floated in comfort the whole length of the place."

"We're here now," said Zip, matter-of-factly. "What happens next? We'll see if our friends are still with us."

The men waited for some sign of guidance, but there was only silence. No lights were activated over an elevator. Minutes

dragged on. "Try the doors," said Zip at last, and walked to the nearest elevator. He pressed buttons, but nothing happened. "Go on, try the other ones," he called out with a wave of his hand. Some of the men went to the other elevators and pressed buttons. Others went to the standard doors adjacent to the elevators, but they did not open.

"Well, I guess we have to go back," said Joe. No one laughed.

"This one's open," called one of St. George's men. They all turned and saw an open door—the tenth in a row of identical, unmarked doors along the wall. The man didn't go through it but waited for Zip. The leader of the Starmen went through the portal onto a metal deck. Stairs went upward. He began to climb, with the others following after.

Three flights up he came to another door, which opened as he set foot on the landing. He went through it into a room outfitted as a small hangar. Five spaceships of alien design were clamped to the floor. At the far end of the hangar was an airlock.

Walking gingerly, Zip stepped out a little farther into the hangar. The airlock was enormous and perfectly clear, revealing thousands of stars. Though it had been only a few days since he had seen a starscape, now it almost seemed as if he were perceiving the heavens for the first time. A feeling of awe coursed through him.

"We're almost free," he whispered.

## Chapter 12: First Impact

"ALIEN SPACECRAFT!" murmured Joe, slowly. "Magnificent!"

He and Mark had followed Zip into the hangar. George St. George and his men came after them. They huddled close together and remained at the door while the Starmen strode across the floor of the hangar toward the spacecraft.

The five ships were sleek craft with a highly swept delta wing design. The hulls were a startlingly reflective deep forest

green color. The craft looked identical to each other, each about 75 feet long with a wingspan of about 45 feet. The windshields were black and opaque. They lay horizontally on the floor of the hangar, all pointed toward the airlock.

"Beautiful! Just gorgeous!" exclaimed Mark. As he approached the alien craft he noted that the hull was not merely colored, but patterned. "Oh man! Look at this!"

Joe and Zip were right behind Mark and came over to see what the big Starman was showing them. The hulls were not only beautifully colored, but showed evidence of leaf patterns. Subtle gradations in color gave the impression that the ships were almost camouflaged—that they could land in a deep forest and become almost invisible.

"This is a work of art, a work of genius!" exclaimed Joe.

"How do you get in?" asked Zip, looking for a door. He was running his hands over the surface. There was no sign of a doorway, no seal or join anywhere he could see or feel. He could see his reflection in the side of the spacecraft as if he were looking into a still pool in a forest.

"So close, yet so far," said Mark. "Here are ships, there is an airlock, but we're not any closer to escaping than we were before."

"This'll take some time," said Joe, with a grimace. "It's probably voice-activated, like the computer screens below." The company had passed large computer screens regularly on their trek through the power plant. "All we need to do is learn the language of an alien race we don't know, have never met, and whose language we can't read. Then we can break free of here."

"Let's get busy," said Zip. "I like a challenge. We were led here by our hosts. There has to be a way."

Zip went back to George St. George and his men. "We'll be working on getting into one of the spacecraft and learning how to use it. You can help by exploring this place and finding out what's here. George, would you please take an inventory of what we've got in the way of food and drink and make a plan for making it last as long as you can. We'll also need spacesuits. We

can probably fly without them if we have to, but it's a bad risk."

"Okay, Zip. We'll do our part," responded George. His men scattered throughout the hangar. There was a lot to investigate. It was only about 200 yards long and 50 yards wide, but was lined with cabinets. There were shelves and racks with equipment of various kinds, some recognizable and some decidedly not. More than a dozen doors opened into the hangar. Zip went back to the spacecraft the Starmen had chosen for their escape vehicle.

Joe and Mark were at the closest work station, where there were tools of curious manufacture.

"What can you guess about the alien race that built this place?" asked Joe as he ran his hands across a set of tools, picking one up and putting it back down. "What do we know about them?"

"They're humanoid, definitely," replied Mark as he gazed at a rack of instruments. "We've already agreed on that. I assume that the two figures I saw last night are from the people who constructed this amazing facility. Can't guess why they're not out in force here, unless there are only a few of them aboard. Can't guess why they don't show themselves. Don't know how old this asteroid is or what it is for. But they're definitely humanoid. Even if I hadn't seen them, we could tell that by the shape of the tools and everything else we've seen."

"And the food they gave us is not too different from what we're used to. And think about this: they put fresh fruit in those food packages. They must have a hydroponic orchard somewhere in this asteroid. There must be a huge portion of this complex that no human has ever seen—and maybe can't get into! This place is big enough to house an entire city. Maybe there are *thousands* of them here! George said that he only explored a tiny part of the inhabitable region when he was here. Everything we've seen tells me that they're a lot like us."

"That might tell us something about the nature of the universe, Joe. I like to wonder about things like that."

"And look, these spacecraft have wings. They're not just for travel in the void; they're made for flight on a planet with an

atmosphere.”

Zip came over and joined the conversation. “If they helped us get from the warehouse area to this hangar, why aren’t they helping us get into the spaceships?”

“Maybe there’re only two of them—the two I saw last night,” suggested Mark. “Maybe they’re caretakers or something like that, and not spacemen. Maybe they don’t know much more than we do how to get into these beauties.”

“Well, whatever the reason, I guess we’re on our own, at least for the time being.”

“Looks like some sort of laser here,” said Joe, picking up an object that resembled a flashlight. It had two dials on it with signs of calibration, and a button that was probably intended to activate it. “If it *is* a laser, and if these dials move the power from low to high, who knows which end is which?”

“Take it into the power plant and aim it at the floor. An instrument that small can’t have too much power and won’t hurt a half mile of solid iron. See what happens,” suggested Mark.

Joe shrugged. “Okay.” He went over to the door through which they had come a half hour before. He was back in a few minutes.

“It’s a laser, all right. This dial here changes the intensity of the beam from low to high, and this one—well, watch. There’s a barrel of powder over here. Talcum or something.” He reached in, took a handful of the dust, and dropped it back into the barrel. A cloud of dust rose up. He activated the laser through it. A bright blue beam appeared. He turned a dial and the beam became a brilliant green.

“Lasers of different frequencies, all in one tool!” Mark exclaimed.

“Yeah, and it’s got red too!”

“Lots of possibilities with this,” said Zip. “I’ll bet it can be used to open the spacecraft. The doors can’t be only voice-activated, or they couldn’t open the door in a vacuum. What else is there? Heat, magnetism, light? They used heat, body heat, on the panel back in the room where we were kept prisoner. Heat

won't work in deep space. Let's try light. We've got the tool here."

The Starmen went back over to the spacecraft. Joe set the laser for blue light and ran the beam over the surface of the ship. For several minutes he tried various colors and intensities. When he set the laser for yellow light, there was a change in the surface of the ship.

"Ah!" said all three Starmen at once. The outline of a door appeared, with markings in several places. Joe experimented a little more, placing different intensities on the markings. In a moment he was rewarded. The door recessed a few inches into the ship, and slid aside with quiet efficiency. Joe immediately stepped through the portal.

The furnishings of the alien spacecraft were similar to what the Starmen were familiar with, but the control panel was more challenging. Some controls were obvious, since they were necessary for any spacecraft; others were completely unfamiliar.

After about an hour of looking around, Joe sighed, "Gonna need more time, Zip."

"I know. We'll just have to dedicate ourselves to it until we feel confident enough to take the ship into space."

"I'm making some progress here," announced Mark. He was at a side panel near the navigation station. As he worked the keyboard, various schemata appeared in quick sequence. "I can't read anything, but it's obvious that these are engines. I can't recognize everything that's coming up, but most of it I can. See, here is a circuit diagram, and this part here can only be a reaction chamber. I think this ship might use cold fusion for power, but I can't know for sure until I can read this stuff, or see it in action."

"You figure it out, Mark, and I'll fly it," said Joe confidently.

"Well, this stuff is you boys' specialty," said Zip. "I've got to think ahead to the next problem. Assuming we can get this rig to fly, and assuming we can open the airlock, we've still got to escape the pirates. I doubt this ship is one of the invisible ones, and they'll have us spotted and speared in less than three minutes if we just fly out of here, saying, 'Thanks for the hospitality,

sorry we have to leave so soon.”

“You can figure it out, Zip! We’ll get this grand machine ready!” Joe was enjoying the challenge. It was hard to keep him down.

After eight hours of work on the spacecraft and with dinner behind them, Joe said to Mark, “Let’s go back into the power plant and see if we can’t find some way to sabotage the system so that the pirates can’t find us when we take off. You can bring up some files on those huge screens. Maybe we can even find some way to close down their whole operation.”

“Sounds good to me,” said Mark, picking up a glass of water. He took a sip and swished his mouth with it, then swallowed. “Best we can do without toothbrushes, I guess.”

“If it were that easy,” said Zip, “our hosts would probably have shut down the pirates long before this. After all, it’s their plant and they know it better than anyone.”

“You’ve got to be right, Zip, but I don’t like sitting around. We’ve been in this room all day and I’m ready for a break. I really do like that huge plant. Man! Imagine a room ten miles long!”

The three Starmen descended the metal stairs and exited into the enormous plant. A few yards away was one of the large computer terminals. Mark went over to it and activated it.

“I can recognize a few things, now that I’ve been through so many of the files upstairs,” he informed his partners. “This, I think, is the lighting system.” He pressed a button. There was a loud “chunk” sound and the plant lit up brightly.

“Ow!” said the three Starmen and covered their eyes. They were not prepared for the sudden brightness. When they could tolerate the light, they looked above them. Without a word, Mark lay down on his back and just stared upward. Rank after rank of lights went up on the iron framework for nearly a mile. A ceiling the color of charcoal was barely visible, with what looked like rectangular viewports imbedded in it.

Joe and Zip remained standing and looked to their left. The lights blazed for about half a mile. Beyond that point was

darkness.

"It will take a lifetime to learn everything there is to know about this place," said Mark dreamily.

"I think we'll be back someday," replied Zip. "What else can you do, Mark?"

Mark got up and turned the lights off. It took nearly a minute for their eyes to adjust to the dimness. While Mark looked through file after file, Joe and Zip wandered through some of the iron latticework. They climbed spiral staircases for a level or two before descending again, and examined the connections of tubes, pipes, and circuits.

"I've got something!" called out Mark. The others ran to him. He pointed at the screen. "See, this is the main power generator. I can tell because of the coils over here and the way the circuits are connected. There are about eight of these; they must be spaced in a row a little over a mile apart. They can operate singly or in combination. But look! They don't just power the life-support systems—in fact, I haven't found that part at all yet. But these are thrust systems! Do you know what that means? *This asteroid is a spacecraft!* It's made to travel!"

"Can't be!" said Joe, flabbergasted

"It is. Look." Mark flipped past a few more files, pointing out the connections and the diagrams of chambers, coils, and energy field generators. "I'm just barely getting a glance at this stuff, of course, and I don't understand it all, but I have no doubt about what I've seen so far."

"Why don't you look for that life-support file and see if you can turn off the pirates' energy or something?" Joe suggested.

"No, Joe," said Zip. "As I said before, if it were a good idea, our hosts would probably have done it already. I think that whatever they're not doing, we shouldn't try to do. Remember, even St. George didn't want to fiddle with something he didn't understand."

"George is a real nice guy, Zip," said Joe, "but I still think he's breathed a little too much vacuum for his own good. You have to experiment in life, sometimes."



“I want to learn more about this power system! This is amazing!” rhapsodized Mark. “If I’m right, this button here will...” He pressed it. Almost at once a stream of paper began to feed out of a slot to the right of the terminal and fell down, sheet by sheet, into a gathering tray. Mark picked up the first sheet.

“It’s printing out the diagrams of the thrust system. just like that. You’re right, Joe—this place is *great!*”

~

On the northeast edge of the massive area on the surface of Mars called the Hellas Basin stood a complex of domes and cylinders. Made of metal and glass, it stood on an open plain about 35 degrees south of the equator and 85 degrees east of the central meridian. The complex was one of five atmosphere-generating plants on Mars, and the only one in the southern hemisphere. In a small crater nearby was the settlement of New Emmaus, with a population of about 12,500.

The long process of terraforming Mars had begun when a meteor shower struck the fourth planet in 2009, significantly raising the temperature of the atmosphere and altering the weather systems. With this jump start serendipitously provided by meteorites, Earth had hastened the process of making Mars livable by scattering the surface with spores and seeds, introducing desert-hardy animals, and establishing the five atmosphere-generating plants. Thanks to Earth’s efforts, the planet’s temperature had continued to rise. Eventually water had emerged from below ground and from the ice caps around the poles, and the air was gradually thickening.

Terraformation had been taking place for almost 150 years, and it would be at least another two centuries before it would be possible to live anywhere on Mars without a spacesuit. The atmosphere-generating plants were critical to the process. The plants themselves were automated, with all systems operated and monitored by robots, and the major centers of population on Mars were located in craters not far from each plant. The

complexes were on the open surface of the planet rather than in craters, but the air they created flowed first into the nearest depressions in the surface, and it was here that most settlements were located.

The plant located in the southern hemisphere was the most remote, but had been filling the Hellas Basin, locally known as the Red Sea, for decades. This great depression was 2,500 miles in diameter. When much of the southern ice cap had melted, it filled the Red Sea with water up to about three-fourths capacity, making the region a delightful place for quiet living.

In the early morning of August 15, 2151, the cloudless sky was a brilliant violet, and the sun was rising like a bowl of molten gold. Marshal and Averette North, a retired couple, had climbed to the top of the crater wall to enjoy the sunrise. Six miles away was the atmosphere plant, gleaming in the newly-risen sun.

They were the only ones to see what happened next, but it happened so quickly that there was almost nothing to see. In the thin atmosphere, there was only a slight vapor trail and a short-lived but powerful whine; then with a dull, gut-churning thud a ball of black and orange flame slammed obliquely into the desert floor within a quarter of a mile of the atmosphere plant. An enormous wave of pinkish-ochre sand rose up in front of the impact site like a great wall. The shock wave quickly blew the wall of sand upward and outward, so that it sparkled like luminous rain until the sand particles became too scattered to be seen.

The shock wave struck the atmosphere plant and shoved it aside as if a giant, invisible hand were violently clearing a table of unwanted crockery. The crater wall where the Norths were standing rocked and heaved as if in an earthquake. The shock wave passed them, blowing their hair and rippling their clothing as if it were a pleasant breeze that died away as quickly as it had come.

The elderly couple stood frozen in shock and watched the cloud of dust gradually fill the entire eastern sky. After several

minutes, the dust was thin enough to reveal a horseshoe-shaped crater almost a mile across. On the southwestern edge of the crater, where it trailed off into the desert without a sharp boundary, was the place where the atmosphere plant had been. Now the plant was broken into many thousands of pieces and the wreckage was scattered for several miles in a wide fan across the sand.

## Chapter 13: The Brink of Disaster

THE ALIEN SPACECRAFT was beautifully designed and well equipped. The Starmen had spent more than two days exploring it fully and tracking its electronics systems. It was planned for a crew of twenty. The galley was not stocked, but Zip assigned some of St. George's men to store their food in it. The storage area inside the ship included spacesuits for the entire crew. The suits were shaped slightly differently from what the Earthmen were used to. They squeezed a little in the chest and were somewhat baggy between abdomen and knee, especially for the shorter men, but they could be used.

Joe and Mark were working to the point of exhaustion, trying to figure out the controls in the cockpit. Mark had to trace innumerable leads from the panel through the walls of the craft back to the wings, tail, and especially the propulsion compartment. The Starmen found the work exhilarating but time-consuming. Mark estimated at the end of the second day that he had figured out about 80% of the control panel, including all the major systems. Joe confirmed his reckoning and, without even igniting the power, was learning to pilot the alien craft. Both Starmen kept Zip informed of their progress.

It was still up to Zip to find a way to escape from the asteroid. Even if they could pilot the ship, it was certain that the pirates would locate them by radar within seconds of their departure and the chances of their escape would be practically nil.

The atmosphere tanks supplied with the spacesuits were

empty, so Zip had to fill them from large storage tanks of pure gases he found to one side of the hangar. Since Zip was unable to read any labels, he had to analyze the gas in each supply tank to determine which gases the tanks contained. Once he had succeeded in identifying nitrogen and oxygen, he was able to fill the tanks for the spacesuits with a mixture similar to that of air on Earth. This project was tedious and physically demanding, but St. George's men assisted him with the heavy work. Since the gravity was so low, two men were easily able to move even the largest equipment needed for the work. By the end of the second day, all the tanks had been filled.

That evening, Zip put on one of the spacesuits and practiced operating it and moving around inside the hangar. When he was satisfied that the mixture of air was breathable and that he could maneuver in the suit, he took off the helmet and walked over to where Joe and Mark were sprawled under the spacecraft with a panel open over their heads. The deep green of the highly reflective metal hull was marvelously soothing to the eye. For a moment, Zip paused and wondered about the race that had built the ships. Then he called out to the others.

"Joe, Mark—I'm going through the airlock to see what's out there."

Joe skidded out from under the hinged panel. "Are you sure that's wise, Zip? We don't know where the pirates are."

"That's why I'm going out. I have a plan for our escape, but I have to explore a little bit outside to see if it'll work."

"Want some company?"

"Thanks, I do, but I'll take George. You and Mark keep up the work." Zip went over to where George St. George was sitting at a table with several other miners.

"George, could you come with me? I'd like to see what's outside."

"Sure, Zip," said the blond man, standing up. The asteroid miner suited up and the two men walked to the far end of the hangar. Zip was carrying a small iron plate. In front of them was a huge panel that could open to permit spacecraft to pass through

the airlock, and on either side of it were sets of doors to allow people through. These doors entered a hallway that proceeded to the outside of the asteroid and allowed passage without the major airlock's having to be emptied.

"Ready?" asked Zip through the suits' intercom system.

"Sure. Let's go." Zip opened the door into the airlock and they passed through and closed the door behind them. Zip operated the controls that sucked the air out of the hallway. The two men walked about 50 yards to the far end of the passage and opened the door to the outside. They stepped out onto the surface of the asteroid.

They looked around, but could see no evidence that there was an airlock adjacent to where they were standing!

"Camouflaged!" said Zip.

"Whoever made this wondrous thing," commented George, "apparently had a reason for wanting to be hidden. Let's make sure we can still get back in. Can you open the door we just came out of?"

"No need to worry. I'm not about to close a door behind me for good until I know I can open it again." He took the small iron plate and used it to jam the door open. From the inside, the door was transparent; from the outside, it looked like the surface of the iron asteroid. Its hinges were completely hidden. "Now let's see what's out here."

For the first time, the two men gazed outward. The Milky Way blazed above and to the right, its countless stars bright enough to cast slight shadows behind the two men.

"I never tire of seeing that view," said George. "I've missed it, just in the few days we've been inside."

"Yes, it's inspiring," answered Zip, but he was already in motion, walking and scanning the ground on both sides of him. George followed. Their asteroid boots gripped the surface of the asteroid.

"What are you looking for, Zip?"

"Evidence of the pirates. I've got a plan for escaping them, but our exit point here can't be too close to their entrance."

"We've walked a dozen miles through the asteroid from their headquarters—they can't be too close."

"I'm sure you're right, but there may be other entrances. *We* found one, didn't we?"

"Even if there were other entrances, they're bound to be as invisible to the eye as the one we just came out of."

"Right again, I'm sure, George, but I don't want to take any chances. Our escape depends on our being unseen—at least for most of the time. Then I *want* to be seen."

"What do you mean, Zip?" George asked.

"I'll explain later, when everyone's present, if you don't mind. Now we have to hurry."

Motionless on the asteroid's surface, Zip and George were slowly moving into the dawn. A pale sun far away was coming into view, and a golden line of light began to grow over the 45-mile-long chunk of almost pure iron. The spacesuits' faceplates automatically darkened slightly.

"Let's go back," said Zip.

Back inside the hangar, Zip called a meeting of the fourteen men and explained his plan for escape.

"Sounds good, Zip," affirmed Mark, and Joe agreed.

"What about food and water?" asked one of the miners.

"What's left?" responded Zip. "How many days can we go if we ration even more strictly?"

"About five until the food runs out, and there's about a gallon of water for each man left."

"We can do it. No choice anyway. Let's get some sleep and start things rolling first thing tomorrow."

~

Immediately after they awoke, the Starmen put Zip's plan into action. Joe opened another of the alien spacecraft. The Starmen had taken a quick look at the other ships in the hangar and found them to be identical. Quickly they made the ship look as if it had been abandoned in panic. When they were finished,

two men carried a small tank of oxygen into the storage area. Joe then piloted the ship through the airlock to a point where it hovered just above the asteroid. Zip, Mark, and two miners stood outside on the ground. An explosion rocked the ship, and a panel was blown out from the wall of the storage area. Joe had detonated the oxygen tank to make it look as if some cargo had ignited and destroyed the ship.

Joe emerged from the main door and jumped to the ground. He had been tethered and the others pulled him in. They went back through the airlock and shut the door. They were still able to watch what happened through the immense window, transparent on their side. The ship began to drift away from the asteroid on a pre-arranged course Joe had set.

"The pirates should be seeing that on their radar in a few minutes," said Zip. "I figure the ship has to be at least a quarter mile from the surface for it to register on their screens."

But it was nearly ten minutes later that three pirate ships appeared. The pirates could easily see the ripped panel on the ship and took only a few precautions on approaching the derelict. Zip turned to a "reception only" channel on the communicator his suit provided.

"It's not an Earth ship, sir," said a voice, "and it's empty. Completely derelict. Must have been clamped to the surface of the asteroid and got shaken off when you moved it out of the Belt."

"Go inside! Make sure there's no one in it!" It was the commanding voice of Lurton Zimbardo. "Look for any sign that the Starmen had something to do with it!"

"Yes sir!" The orders were given and six men left one of the pirate ships and went through the open door of the alien craft. It took less than a minute to get a report.

"Nothing here, sir," said one of the spacesuited men to his officer. "The cargo area has been completely destroyed in an explosion, and the wall has been blown open into empty space. There are no suits, no signs of any habitation."

"It's an old wreck, sir, and so damaged that it can't be used,"

reported the pirate officer to headquarters.

"Probably left by the beings who built the asteroid," said Zimbardo. "Come on back to work. I'd like to take a look at it, but we don't have the men or time right now. Other matters are pressing."

"Yes sir." The communication terminated. The pirate ship took back its six crewmembers and the three ships cruised over the horizon.

"Part one, the least risky part, successful," said Zip. "Let's get going on part two, right now. Joe?"

"Ready Zip," the lanky Starman responded. He stepped through the airlock and leaped off the iron surface of the asteroid toward the derelict. Powered by small jets of oxygen he sped to the ship and disappeared through the open door.

"Everyone else get busy," called Zip. They ran back through the airlock to the hangar. The others were already aboard their escape craft. Zip piloted it through the airlock and kept the ship close to the surface of the asteroid. The airlock closed behind them. In the meantime Joe had caused the damaged ship to drift back down toward the asteroid out of radar range. He and Zip brought the two ships together and made a link. Joe left the broken ship and joined the others.

"Ready, Zip" he announced, once he was aboard. Zip put the slightest possible power into the escape ship, then turned the power off. Both ships began to drift away from the asteroid, so slowly as to be almost unnoticeable. Zip was hoping that when the pirates saw the blip on their radar, they would conclude it was the derelict and pay no attention. He was ready to drift for as long as it took to escape the notice of the pirates before turning on the power and setting a course for freedom. But now that the asteroid was not in the Belt any longer, he knew that they would have to drift for much longer than he had anticipated.

They were free. But the tension was thick. It would not dissipate for a long time.



Forty-two hours later, Marshal and Averette North witnessed the impact of an asteroid that turned their atmosphere plant into rubble. Within an hour of the impact, Lurton Zimbardo opened a channel that allowed him to speak through nearly every communication system on Mars. Gene had previously discovered a method for entering and using all communication bands on Mars except those that were most closely guarded. He had surreptitiously placed automatic signal points into the Martian system without activating them until this moment. Now that the moment had arrived, the voice of the pirate leader was heard throughout Mars.

“This is Lurton Zimbardo. The atmosphere plant at New Emmaus has just been destroyed by an asteroid impact. You were not able to detect the asteroid by radar. It struck without warning. This is to prove that I am able to render asteroids invisible and send them wherever I wish. You cannot see them and you cannot stop them. Within a day the four remaining atmosphere plants on Mars will be similarly destroyed. This will convince you that I have more power than you can imagine, and that you are helpless to oppose me. After the last asteroid has struck your planet, I will announce my demands.”

Lurton Zimbardo shut off the microphone in the control center of the asteroid. A crowd of at least forty men jammed the center where Zimbardo sat at the console. The rest of the pirates were standing in the factory or at their assigned work places in the facility. All had heard the broadcast. A feeling of immense power and invulnerability surged through them. A few men began to cheer, and within seconds the enthusiasm had infected the rest of the pirates and the cheer became a roar. It rang throughout the control center and along the corridors, and filled the factory. Zimbardo’s smile was wide. He looked down almost modestly, as if he were reluctant to accept the men’s accolades.

When the cheers had died down at last, Zimbardo said simply but so that all could hear, “And now for the last step in the plan.” The room was quiet. He took out a set of notes from his pocket. The paper was marked with scrawls, lines, and columns of

figures. His eyes flicked rapidly from the notes to the controls. His fingers began to fly over the keyboard. He punched in coordinates and set the power grid. He marked the timing of various operations.

Gene, Zimbardo's closest associate, was watching. Gradually his smile narrowed. His eyebrows creased. Then his eyes widened and his face drained.

"Sir!" he exclaimed in a quiet voice. "Those are the coordinates of Earth! If you use those, you'll take this whole asteroid directly to Earth!"

"Exactly," nodded Zimbardo. "In about 32 days, as I figure it." He was smiling widely again as he pressed "Enter" and activated the asteroid's propulsion system.

## Chapter 14: The Shield of St. George

THE CONVERSATION was very quiet, but the microphone picked it up. The words that passed between Lurton Zimbardo and Gene were heard by every pirate on the asteroid. There was complete silence. The pirates' enthusiasm and their complete trust in Zimbardo's leadership was instantly badly damaged. Though no one spoke, many of the men began to doubt their leader's sanity, and became afraid.

"But sir," pleaded Gene. "This asteroid is the key to our success, and we're all its passengers. If you program it to collide with Earth, I..." words failed him.

Zimbardo smiled indulgently. "Gene," he soothed, as if explaining something obvious to a confused child, "I'm not going to cause us to smash into the Earth. We want to control Earth, not destroy it, and how better to do it than from a close orbit around the planet in this magnificent flying base? I'm taking us to Earth, and there will be plenty of time to adjust our course once we get close. We will accelerate until about midway there, then decelerate until we achieve orbital speed.

"I will, however, inform Earth that I have sent an asteroid

more than forty miles long on a collision course—an asteroid they can't see and can't stop! They will meet any demands I make! They will definitely meet any demands I make, after we destroy the five atmosphere generators on Mars with pinpoint accuracy. Relax now. In a month or so, we will be the undisputed masters of the third planet—and all without leaving home!” He laughed.

Gene grinned and also laughed, but while Zimbardo's laugh was deep and genuine, Gene's was a little forced. He was relieved, but his trust in Zimbardo's leadership had suffered a severe setback. He would be on his guard from here on. He looked up and caught the eye of Mr. Lather. His face was hard and unsmiling; it was difficult to tell what he was thinking. Gene turned and looked at Gebbeth. His expression was marked with merciless determination. He, at least, appeared convinced and prepared to follow Zimbardo all the way. But Gene was no fool; he looked around and surmised that the majority of those in the room were harboring secret reservations.

Gene didn't blame them. He felt the same way. He would stay with Zimbardo for the time being, but he would keep a careful eye on the situation and look for a way to ensure his personal safety if it appeared that the pirate leader had lost touch with reality. The pirates were looking for power and prestige, not a suicide mission.

~

For almost two days the Starmen and the miners had been drifting in space, not using power of any kind, afraid that even using lights might draw the attention of the vigilant pirates on the asteroid. The distance between the ship and the massive iron asteroid with its fascinating interior was increasing incrementally, but not quickly enough to please Zip. He chafed with impatience.

Mark's first duty once the fourteen men were aboard ship was to discover their location. Since the escapees were using no power at all, Mark could employ only observation and

mathematics to get his estimate.

After a few minutes, his brow wrinkled. "Curious," he said, and then he checked his observations.

"Zip," he called out. "I don't think we're in the Asteriod Belt any more."

Zip hurried over to Mark. "What makes you say that?"

Mark showed him his figuring.

"You're right. That means that Zimbardo has moved the asteroid. He knows more about it than I gave him credit for," Zip said grimly. "I wonder why he moved it. My plan will still work, but the situation has changed. He must be planning something. We have to get out of here as soon as we can and report what's happening."

Mark guessed that they were 1,023 miles from the nearest edge of the Asteroid Belt and drifting roughly parallel to it.

The Starmen's plan was to head for the nearest SE facility. If Mark's estimate of their position was correct, the facility closest to them was an unmanned Starlight Enterprise station on O344, a medium-sized asteroid coming their direction. As soon as it was safe to use power Joe would pilot the alien ship to the station.

"We'll be okay in a few hours, Zip," said Joe. "You got us out of the asteroid with food and a ship. We all thought that would be impossible. We ought to be able to turn on the energy and get blasting out of here before too long."

"I know," responded Zip, with his characteristic furrowed brow. "We're caught between taking a chance on being recaptured by the pirates and depleting the food. We'll run out of supplies in a couple of days."

"I know—and the closest base is roughly four days away, depending on how speedy this beauty proves to be. But we'll make it." Joe went off to visit with Mark, who was gazing out of the window at the immense spread of the Milky Way.

George St. George came up to Zip, who was sitting alone at a table, doing nothing but staring down at his hands. He sat down opposite him; when Zip looked up, the miner smiled.

"You've brought us back into the heavens, young Mr.

Starman,” he said, “so you’ve got no reason to be covered with gloom. You won’t get us to safety now any faster by worrying.”

Zip pursed his lips and looked into St. George’s eyes. *The man seems to be protected by a shield of innocence all around him*, he thought. *His base was destroyed, he and his men were captured and taken into a massive iron asteroid by the Solar System’s greatest enemy, and now he’s floating in the void with only two days’ food left, and he’s still calm and trying to encourage me the way he encourages his men. Who is the real leader of these men? I make the decisions, but he strengthens their hearts. He even strengthens my heart.*

St. George smiled. Almost as if he could read Zip’s mind, he added, “Each of us has a gift according to the grace given us, which we are to use to benefit others. If it weren’t for you, we’d still be locked up inside that room—or worse—under the control of Lurton Zimbardo. I have my gift, and you have yours, and we both employ our gifts well. We haven’t come this far to fail now. Our success doesn’t depend solely on you, you know. Relax and just do your part. There’s still a lot to do, but the outcome isn’t in doubt.”

Zip smiled, and before he could say anything St. George had risen and strolled to the window where Joe and Mark stood.

All at once, Mark pointed and cried out, “Hey, look at that! Do you see what I see?” Several men came to the window and peered out. Zip Foster joined them. Joe answered.

“Yes! —the asteroid’s moving!”

The dark bulk of the pirates’ asteroid, which had loomed so close to them for two days, was gradually but visibly moving away. Its silhouette had been blocking half their view of the Asteroid Belt and the gleaming array of stars behind it, but now, even as they watched, its profile diminished and stars were winking into view around its edge.

“They’re heading out somewhere—moving that entire asteroid! I wonder what’s going on?” asked Mark.

“We’ll be able to power up before too long, now! We’ll be on our way ourselves,” announced Zip, animatedly. “Soon we can

get in touch with Starlight. It's been over a week since we've been in contact. We've got a lot to tell them." The shadow that had lain over Zip for two days had been lifted. "How long until we can turn on the power, Mark? When will we be out of the pirates' radar range?"

"Less than an hour, I'd say."

Zip raised his voice so everyone could hear. "We get under way in an hour, men!"

It was sooner than that. In 26 minutes, the asteroid was no longer visible to the eye. Zip waited a full 45 minutes then turned on the ship's power at its lowest setting. Using the radar, he scanned the quadrant where the asteroid had last been seen and turned up no object of significance. He hadn't expected to.

"That doesn't mean they can't see us," he mused to Mark and Joe. "That asteroid is probably sheathed just like their ships. But I think we're safe now—safe enough, anyway, to get moving."

"Right. Let's go," said Joe. "I'll jettison the derelict and power up! I've been looking forward to this moment!"

Zip ran the power switch up to maximum and commanded everyone to prepare for acceleration. Joe ignited the propulsion system. With the lanky Starman at the controls the alien ship began its journey toward the Asteroid Belt. As the ship began to cruise easily, Zip began to think of communicating with Starlight Enterprise.

"Mark, contact SE right away. Fill them in on our recent adventures and see if, by any chance, there's a ship closer to us than the base on O344."

George St. George spoke up. "What if the pirates overhear your transmission, Zip? Won't they know we've escaped and be able to locate us?"

"I think it's worth the risk, George. They probably think we're still inside the asteroid and won't be looking for us out here. Even if they do overhear the transmission, I doubt they'd send some ships after us. The distance between us is growing rapidly, and if we have to hide in the Belt we've got plenty of

time to do so. I'm worried about our dwindling supplies; we need some relief soon, and SE needs our information as soon as we can get it to them. Go ahead, Mark."

"Right away, Zip," said Mark.

"Provide them with a concise but complete report," Zip went on. "Tell them about the destruction of Z25, describe the asteroid with an estimate of the number of pirates and their ships, and especially the asteroid's location. Don't worry about details of our escape, other than to say that we are in an alien spacecraft and heading for O344 with a minimum of supplies. Ask Sim Sala Bim to send someone to O344 with the *Star Ranger* and another ship to take St. George and his men back to Ceres or wherever they want to go."

"Got it," said Mark and began to prepare his report. In less than five minutes he had sent it, but due to the interplanetary distance he didn't expect a response for nearly half an hour.

"Sure wish we had that realtime transmission equipment on board," mused Zip out loud, thinking about how his encounter with the pirates had begun with the experiment in the control tower in Eagle City. "But I guess it'll be a few years before the miniaturization is worked out so that spaceships can carry it."

"We'll get to the base a little faster than we thought, Zip," said Joe. "This ship is cruising very efficiently. We can learn a lot from it, in time." The sleek, forest green cruiser sped through the vacuum, rapidly approaching the edge of the Asteroid Belt.

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Six hours and 23 minutes after the destruction of the atmosphere-generating plant on the edge of the Red Sea on Mars, a small iron asteroid struck the plant located just south of the Oxia Palus on an open plain about five degrees north of the equator and fifteen degrees west of the central meridian. It was a few minutes past 4:00 a.m. local time. Six miles away was the settlement of Westcott.

Most of the local populace had not heard Lurton Zimbardo's

radiocast, since it had come in just before midnight. The second asteroid followed a near-vertical course and slammed with tremendous force into the ground a half mile from the atmosphere-generating plant. The sun rose onto a land choked with dust. When the dust settled back to the surface about midday, the people of Westcott saw only a crater a mile and a half wide. There was no sign that any human artifice had ever existed on the spot.

Almost sixteen hours later, on an overcast afternoon in the empty northwest, the third asteroid struck. Its target was the atmosphere plant located 51 degrees north of the equator and 141 degrees west of the central meridian—southwest of a small crater that was the home of a town called Morris. It was centrally located for miners, prospectors, farmers, arborists, and mobile scientists, who lived near or roamed throughout the locale.

By this time Zimbardo's message was known all over the planet and the utter destruction of the first two atmosphere generators had shown that his threat was to be taken seriously. Morris had been abandoned, and its 25,000 residents were in panicky flight to the northeast, opposite the plant. Few people saw the asteroid make a direct hit on the two billion solar complex.

Seven hours and 12 minutes later, the fourth asteroid demolished the atmosphere plant located nine degrees south of the equator and 167 degrees east of the central meridian. It was evening, and the resulting cloud of dust created a sunset of spectacular beauty, with colors rippling through the drifting sand like fire seen through a translucent curtain.

The final impact occurred in the early darkness hours. The atmosphere plant located northeast of Eagle Crater at 26 degrees north of the equator and 85 degrees east of the central meridian was instantly turned into rubble.

In a thirty-two-hour period, Mars had been scarred by five new craters, each one a mile to a mile and a half across. More than ten billion solars in damage had been done. Atmosphere generation on the red planet could not be restored for at least five



or six years.

Much more satisfying to Lurton Zimbardo was the fact that the entire population of Mars was held inescapably captive by an hysteria of fear. No one doubted that Zimbardo had spoken his threat accurately. The five asteroids had arrived unseen until the last few seconds and had pulverized their targets with accuracy of less than half a mile of error. The fearful populace of Mars awaited the promised communication from the pirate leader, in which he would reveal his demands.

## Chapter 15: A Microwave Net

SPACE COMMAND and Starlight Enterprise were filled with intense activity. The previous day had been a roller-coaster ride of messages from Mars and the Asteroid Belt. First came the dismal news of the destruction of the Martian atmosphere-generating plants, one after the other. Then just before the tidings that the plant near Eagle City had been demolished, the message from the missing Starmen had come into Starlight Enterprise. The euphoria with which that word had been received was quickly dampened by the ultimatum Lurton Zimbardo had issued.

Zimbardo had demanded control of Earth's wealth and resources, with specific demands for access to Earth's coded defense mechanisms, authority over major ports of travel, and power over the major decision-making processes and information systems. He closed his threat with the chilling announcement that he had already directed a sheathed asteroid more than forty miles long into a collision course with Earth. When his demands had been met and verified, he would then turn the asteroid aside.

Immediately after receiving the message, the President called a meeting in one of his maximum-security offices on Earth. Joining him at the table were some of his senior advisors as well as Richard Starlight, his chief assistant John Rwakatare, and

other representatives of SE. Robert Nolan with his chief assistant Beowulf Denn and other representatives of Nolan Mining Enterprise filled out the gathering.

“Although he has demanded control of Earth’s systems of communication, exchange, and security, I believe, ladies and gentlemen, that Zimbardo’s real object is not clear.” The President was drawing conclusions after a brief introduction of the facts. “It is impossible for one man simply to become dictator of the entire planet, no matter who he is or what engines of destruction he can call upon. I suspect that his aim is other than he has announced, and I am determined not to provide the access codes to our most sensitive systems.”

There was a slight rustle of movement around the table. Whatever course of action was to be decided at this meeting, calling Zimbardo’s bluff had not been considered by many to be a viable option. The President continued.

“His ruination of the atmosphere plants on Mars proves that he is able to direct asteroids to targets with high accuracy, and that we are unable to detect them. Although the loss of the plants is a severe blow, it is not crippling. They can be rebuilt in a few years. At worst, the process of terraformation will be delayed for that long. Replacement will cost about ten billion solars—obviously a huge amount of money, but an amount that Mars can afford. The plants were over a century old however, and in the long run replacing the plants will be more effective and probably achieve the goal of terraformation faster than if we had continued to use the plants that were destroyed. Frankly, there were plans already in the works for modernizing the plants.

“No, the real damage has been psychological: the people of Earth and Mars are terrified. This, undoubtedly, was Zimbardo’s major goal in destroying the plants, and he has achieved it completely and thoroughly. His demands to us are clear, but it is difficult for us to perceive what he would achieve, even if we capitulated—which we do not intend to do.”

Robert Nolan could not contain himself any further, and lurched backward as if he had been struck. “*You don’t intend to*

*cooperate with him?*” he almost screeched. “But he’ll destroy the entire planet if we don’t! There is no way we can detect an asteroid he’s made invisible to radar!”

“Dr. Nolan,” responded the President, “we believe that we have a method which will allow us to locate the asteroid that Zimbardo has directed toward Earth. We have a very good chance of locating it and destroying it.”

“A *chance*? Mr. President, you’re gambling with the very existence of life on Earth! If an asteroid forty miles long strikes Earth, it will not only cause the extinction of every life form on the planet, there is every likelihood that it will crack the Earth’s crust! There will be no escape! *No escape!!* Don’t you see that we *have* to cooperate with Zimbardo? It will be easier to meet his challenge once he has turned away the asteroid!”

The President responded in gentle tones. “You have not yet heard our plan, Bob. Believe me, I can sympathize with your quandary, but I am simply not going to deal with any evil force as if it had a right to negotiate. It doesn’t. This has been the principle behind the decisions we have made in order to meet the threat of the pirates from the first day.”

“*Principle?*” Nolan was almost shouting now. “For your *principle* you’re willing to risk the destruction of all life on Earth? *That’s* the evil we’re facing here!”

“Bob—please listen to what Dr. Hoshino has to tell us. There is a plan. Dr. Hoshino?”

Robert Nolan leaned forward, placed his elbows on the table, and cradled his head in his hands. He was trembling. Richard Starlight looked over at his friend and colleague and felt very badly for him. He knew that Robert was under a tremendous strain. Richard agreed that the fate of the Earth was at stake and would probably be decided at this meeting. He was tremendously anxious himself, but he was eager to hear what Dr. Hoshino had to say.

Dr. Stephen Hoshino was a brilliant astrophysicist whom the President had commanded to work on a plan to counteract Zimbardo’s chief weapon—the radar bender. He was a slight

man of Japanese ancestry who, in spite of his compactness, exuded power. Even his smallest movements were made with precision. Although he was only in his middle thirties, from his late teens he had been granted virtual *carte blanche* in his research. Even at that young age, his genius had become known throughout the inhabited Solar System. His voice was calm and mellifluous.

“Thank you, Mr. President. My team and I have been working around the clock for eight days to develop a system for detecting an object which is invisible to radar. We have succeeded. The theory was not difficult to develop, but the method provided somewhat of a challenge. We have now designed a technique for locating a body as small as, very roughly, two-thirds the size of the average spacecraft, by detecting its gravitational field.”

As he spoke, many of those listening to him felt the level of their anxiety diminishing slightly. Robert Nolan lifted his head. Though his expression was drawn, he was paying attention.

“We must manufacture millions of tiny probes and release these into space in a systematic fashion over many millions of cubic miles. Their design is quite simple. The laboratories and manufacturing centers of organizations like Starlight Enterprise, Nolan Mining Enterprise, and other companies can create these probes in vast quantities very quickly, using robotic techniques. Each probe will have gravity instrumentation. Using the microwaves naturally occurring in space, they will be connected by a vast neural network and thus act as a single instrument, with all data being fed back to various information centers.

“With the data from these probes we should be able to detect any massive objects in places where they shouldn’t be. Certainly a large asteroid cannot be hidden. The very size of the asteroid with which Zimbaro threatens our planet will work in our favor, since detecting such a large object can be achieved easier and sooner than if he sent, for example, a number of small asteroids such as those that struck Mars.”

“Where will the probes be deployed, Dr. Hoshino?” asked

Richard. "Our time is short, very short indeed, if we have to manufacture, launch, and deploy the probes in time to locate and then destroy the asteroid. Even if we produce millions of probes, as you have said, we have millions of cubic miles of space to search through. In the time available, even trillions of the little probes can't help much. Theoretically, the asteroid can be *anywhere*. There are asteroids inside the orbit of Mercury and outside the orbit of Jupiter. But I suspect that you already have an idea where we are to search."

The President answered. "When Zimbardo sent his first message to Mars, evidence of his tampering with the Martian communication system was discovered. This allowed us to trace how his tampering was done and therefore where the signal came from—at least in a general direction. After he sent his second message, the one to Earth yesterday evening, the signal was traced again. We have learned that his base is moving toward Earth and we have an idea of the speed his base is moving and its direction. The information the Starmen provided confirms what we had learned through our investigations.

"Of course, our figures are somewhat imprecise, and we still have a lot of searching to do, but we have an excellent chance of locating him. It is highly logical that the asteroid he harnessed is from a place in the Belt close to his own asteroid. From what the Starmen reported, he just didn't have time to locate an asteroid as large as he claims to have launched toward Earth from any place too distant from his own base. The probes will therefore be cast in a net in the space between Earth and the area of the Asteroid Belt in which the pirates' asteroid was found."

Richard Starlight, Robert Nolan, and others had a number of technical questions for Dr. Hoshino regarding the manufacture and deployment of the probes and the time schedule necessary to achieve their goal. At the end of the discussion it was agreed that the two companies, with others, would begin to manufacture the probes according to Stephen Hoshino's design. Launch was planned for five days later, with deployment six to seven days after that.

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“O344 coming up on the screen, Zip,” announced Mark.

“Not a moment too soon!” shouted Joe. “Food at last!”

It had been a week since the fourteen men aboard the alien spaceship had left the pirates’ asteroid. They had been traveling under power for four days. Although they had been very sparing in their consumption of the food, they had run out two days earlier. A few ounces of water per person remained in the containers; it had been carefully measured and rationed to last the entire journey to O344. Everyone was thirsty but no one was in danger of becoming dangerously dehydrated. All, however, suffered from the pangs of hunger. Mark had a headache that blurred his vision and made his responses slow.

“If it’s on the screen, we ought to touch down in a few minutes,” said Zip. He was moving slowly and often sat down with his eyes closed. Of the three Starmen, Joe seemed to be the least affected by the two days’ lack of food. The miners were lying down on their bunks. Other than Joe, only George St. George had exhibited much energy in the previous two days, coming forward to the flight deck every few hours to chat with the Starmen.

Zip asked George to prepare his men for touchdown. Deceleration had been gradual, so there was no need for the men to strap into the acceleration couches. However, they would need to be in spacesuits in order to leave the ship and enter the SE facility.

An asteroid about ten miles across loomed up on the screen. Joe circled it slowly.

“There it is,” he said as a landing pad came into view. A small dome next to the pad was barely visible, since the landscape that had been artificially shaped was on the dark side of the asteroid, away from the sun. The site on O344 was one of dozens of such places marked on the navigational maps. They were unmanned stations stocked with supplies and maintained for explorers, scientists, and others in the employ of Starlight

Enterprise. They contained large quantities of food, water, and other basic necessities, and provided rustic living facilities.

It didn't take Joe long to land the ship on the surface of the small asteroid. It settled down gently just a few yards from the dome.

"I'll need someone to go into the supply cache and get some bolts, Zip. This ship doesn't have any to keep it fixed to the asteroid—or if it does, I haven't found the controls for them. I'll have to stay aboard until the ship is secure."

"Okay, Joe," Zip responded. "Great flying. You pilot this ship as if you were trained in it."

"That's my job," said Joe. "Don't take too long, though. I'm hungry!"

The men went through the ship's airlock, made the brief walk across the surface of the asteroid, and entered the dome. The dome contained a small airlock leading to a ladder that descended about 15 feet into the asteroid. Zip asked two of St. George's men to locate bolts and go back up to clamp their ship to the surface. Within minutes the alien ship was fastened down tightly and all fourteen men were inside the supply station.

"Food! Toothbrushes! Showers! Clean clothes!" shouted various voices as the men scattered to look over the spartan facility.

"Food!" shouted Joe, and headed for the pantry where George St. George was already standing.

"Relax, Starman!" said St. George, placing his hand on Joe's chest. "You three men have worked without rest to get us here. Just sit down. Let us show our gratitude by fixing up the best meal this larder can make possible."

The three Starmen were only too ready to comply. They allowed their tired bodies to sink slowly into the rest sofas, the minimal gravity nestling them gently into the concave surface. The miners who were not assisting in the preparation of the meal lay down on bunks in the sleeping quarters.

"I don't know if I need sleep or food more," said Mark. He had been at the navigation and communications stations almost

without respite for all of his waking hours—and he had slept little. Zip had relieved Joe at the helm some of the time, but the trip had not been an easy one. They had made the journey as quickly as they could in an unfamiliar ship, having to keep watch at all times against a surprise attack from any pirate ships. Their communications with SE had been limited only to those most urgent, to minimize their exposure to any possible enemies.

SE had made an immediate and joyful response to the Starmen's initial communication. That had been followed within an hour by a report to inform them of Lurton Zimbardo's ultimatum about a large asteroid on a collision course with Earth. The latter message had draped the men in a somber mood. SE had also assured them that a rescue mission was under way from Ceres, and several ships, including their own *Star Ranger*, were due in nineteen hours. The Starmen and the miners planned to put that time to good use by resting.

Under St. George's direction, three of the miners put together a feast of canned goods. St. George made a blend of canned meat, potatoes, and vegetable soups, and warmed it to create a hot stew that was more than passable. Dried biscuits, rehydrated and quick-baked, were added to the feast. A huge pot of strong, brewed coffee soon added to the savory smells coming from the kitchen.

"It's ready!" called out Sabbath George. He and the others brought huge serving bowls to a large table that was situated in the middle of the room, adjacent to the kitchen. Places had been previously set.

Tired as the men were, it took them only seconds to assemble at the table. George said a few words of thanks and passed the first bowl to his right where Joe was seated. Joe grasped the large serving spoon. The bowl was steaming with the mixture and wisps rose lazily from the ladle as it made several trips from serving bowl to Joe's plate. After he had dished out at least two pounds of stew, he shoved the bowl on to the man at his right and took two biscuits from the central supply.

"Only two biscuits, Joe?" prodded Mark. "Has hunger made



you too weak to eat?”

“I’ll show you whether I’m too weak to eat. Watch this!” He shoveled a heaping spoonful of stew into his mouth. His chin lifted a notch, his eyes closed, and a satisfied moan escaped his closed lips. He slowly lowered the spoon to the table and lifted both hands as if he were about to embrace someone.

“Taste good?” asked Zip, reaching for the aromatic bowl as it came his way.

Joe chewed and swallowed. “Someone back at the Academy told me once that there was no such thing as a dumb question. He was wrong. That was one.” Joe turned to George. “George, this is delicious! I’ve never tasted anything better!”

George glanced over at the food cans that had been in storage for several years. “A hungry man will enjoy anything. A *very* hungry man will consider even canned goods to be ambrosia.” But by that time the serving bowl had gotten around to George, and he stopped to fill his own plate.

## Chapter 16: A Dark Spirit

TO STARMAN David Foster, it was a soft, rainy morning. He had just awakened after a night on the SE supply asteroid O344, and the only sound was the faint hum of the operating system. He wrapped himself a little more snugly into his blanket and kept his eyes shut. His imagination easily turned the murmur into the soft sound of rain sifting through the leaves of the tree outside his bedroom window on his uncle’s farm in West Virginia. With slightly more effort he could imagine a drizzle drumming lightly on the wooden shingles above and drifting out onto the empty fields in the early autumn days shortly after harvest.

His Uncle Francis and Aunt Clare were dear to David. Although he had been raised on the Moon, close to his father’s work, he had been born in Clark’s Bridge Crossing, the village near their farm. From the time he was old enough to show any notice of the world around him, David had loved the stars. Even

now, he loved interplanetary travel, exploration, and adventure better than anything, but in his heart was an emotionally-intense place where he kept his memories of the West Virginia farm where he had spent so much of his childhood.

The small towns and family-owned farms had become indispensable to the rebuilding of America after the Collapse. In the United States the nuclear devastation of those horrifying years had been severe. Most major cities had been destroyed, but much of the outlying and rural areas had survived. In the latter half of the 21<sup>st</sup> century new leadership arose from these areas, and the American spirit, which for a hundred years had gradually been eclipsed by special-interest groups, lobbyists, fringe organizations, and major corrupt economic interests, was largely purified. The “old values” became popular again, if not always followed. A generation of leaders arose with an appeal similar to that enjoyed by the “log cabin” presidents. A candidate who claimed to have basic values and homespun philosophy was guaranteed to win support from the remaining American population.

With his eyes still closed, David smiled. He tried to imagine the aroma of his Aunt Clare’s freshly ground coffee coming from the kitchen, mingled with the smell of hot-off-the-griddle blueberry pancakes. The drizzle was stopping, and the dawnlight of the newly risen sun was sending sparkles through the light rainy haze that shrouded the fields and crowning the eastern fields with the arc of a rainbow. The haze would soon burn off, leaving the dark earth sodden and leaves dripping. He smiled even wider. He could hear his aunt’s voice now...

“Come and get it, Starmen!” pealed the voice of George St. George. “Got some more of that engine-oil coffee steaming away, and I managed to whip together some biscuits from some powdered stuff I found!”

Zip’s eyes shot open and took in the neutral walls of the cubicle where he, Mark, and Joe had slept. The faint hum of O344’s system was drowned out now with the rustle of human movement as the asteroid miners gathered around the table.

“There’s some sort of orangy liquid I mixed up from some other powder, too! Probably has some good vitamins in it!”

In minutes the Starmen and miners were tucking in to the best that George St. George could do with the supplies at hand.

After breakfast, the Starmen sat in the lounge. Mark was poring over the printout that he had taken from the power plant on the pirates’ asteroid. He had a digital copy of much of the layout of the asteroid, and information on the power plants, propulsion structures, and sheathing equipment. The papers were filled with charts, maps, and diagrams; a few sections were written in an unintelligible, alien language. He couldn’t even tell which symbols were letters and which were numbers.

“I hope they didn’t use a pictorial alphabet like Chinese,” said Joe, looking over Mark’s shoulder.

“No,” the big Starman answered. “There are plenty of recurring symbols, so I assume it’s a language like our own, with letters and words. Somebody will be able to decipher this without too much difficulty. It’s far beyond my skill, though.” He rubbed his chin. “But I can recognize a lot of the machinery.”

Zip was sitting nearby. He hadn’t spoken much during breakfast. The images of the farm pulled at him again. “Mark, Joe,” he began. He hesitated a moment while they turned to him. They could see he was puzzling through something, and waited patiently for him to continue. “SE says that Zimbardo has targeted Earth with an asteroid over forty miles long. What’ll that do to home?”

Mark was suddenly deeply saddened. Zip always referred to the Moon as home. He spoke softly.

“One of my professors at Starlight University talked about a study conducted in the early 21<sup>st</sup> century. Back then, scientists started becoming concerned about asteroid impacts, and they built a complex computer model to see what would happen if a large asteroid struck Earth.”

“What did they find?” whispered Joe.

“Well, the model found that, depending on the angle of entry, the impact can produce a massive corridor of incineration ahead

of the impact site. In that area, just about all life ends in minutes. But the model predicted other changes that destroyed nearly all life on Earth within a few years.”

“Like what?” Zip’s voice was dusky.

“I’m sounding like a textbook,” complained Mark.

“Go on,” insisted Zip.

Mark closed his eyes and tilted his head back. “A few hours after the impact, clouds of noxious gases billow up and block out the sun for months. Temperatures drop drastically all over the Earth and corrosive acid snow and rain fall. These short-term effects alone—intense cold, darkness, and acid rain and snow—kill the plants and photosynthetic plankton, the base of most food chains. Herbivores starve, and then the carnivores that feed on the herbivores starve. This is enough to kill most of the remaining human life on the planet. After the clouds clear, the atmosphere is thick with carbon dioxide from fires and decaying matter. Then the carbon dioxide contributes to global warming that lasts for ages.”

Tears slowly escaped from Zip’s closed eyes and made tracks down his cheeks. He remembered that when he was small his aunt and uncle had taken him on a two-hour flight in their small plane to the place closest to their home where there was a field of nuclear devastation. His first view of the terrain beyond the boundary had been indelibly burned into his seven-year-old mind. The cities and towns surrounded by fields, orchards, streams, ponds, and woods had rapidly tapered off below a slight rise into a land of gray, utterly lifeless dust that reached as far southeastward as the eye could see. The center of the field had been the nation’s capital, the third of the great American cities to be destroyed in the holocaust of 2048.

“How big was the asteroid they modeled?” asked Joe.

“About six to ten miles across,” said Mark.

“And the one Zimbardo has aimed at Earth is forty miles long?”

“Bigger. A little bigger than that,” answered Zip quietly. “Bigger.” He felt a chilling darkness come over him, almost as if

he had walked into an inky refrigerator. He shivered uncontrollably for a moment, then sat up and took control of himself.

“Today we get the *Star Ranger* back!” he announced in a clear voice, “and we’re heading back to Earth! Be ready for immediate departure!”

~

An immense metal and glass wheel, half a mile in diameter, rotated slowly in the jeweled heavens. It was the primary manufacturing and launching headquarters of Nolan Mining Enterprise. It orbited the Moon about 500 miles above the surface.

Robert Nolan was burning with a zealous flame of energy. Although often close to burning out, he never went over the edge. His apparently bottomless resources had allowed him to achieve remarkable things in twenty years. Now he was in the command bubble that lifted like an antenna from the heart of the space station. A tower two hundred yards long lifted out from the plane of NME’s manufacturing and launching facility. At its end was a large observation and control center that commanded a view of every aspect of one side of the plant.

“Launch in forty-three minutes exactly,” said an operative in the command bubble. Nolan stood, looking intently over the man’s shoulder at the screen in front of him. Nolan’s eyes shifted repeatedly back and forth from the screen to the actuality that lay spectacularly open to view before him.

“Sir?” said another technician, turning toward Nolan. “The *Lux Mundi* has now completed docking.” The *Lux Mundi* was Richard Starlight’s personal spacecraft.

“Excellent, John,” said Robert Nolan. “Please have Mr. Starlight sent up here without delay.”

“Yes sir.” The technician turned back to his station and issued commands. In less than four minutes, an elevator brought Richard Starlight into the center of the command bubble of Nolan Mining Enterprise. He stepped out onto the floor and

looked around quickly.

"Over here, Rick," said Nolan, stepping toward his friend.

"Bob! Good to see you!" The men shook hands briefly. "All went well at our end," Richard whispered.

Nolan stepped back and spread his hands toward the launching arena of the space station.

"Terrific news," he said. "We'll be launching in about forty minutes."

The two men went into Nolan's office and sealed it. Though everything was visible through clear partitions, no one could hear what went on inside.

"I'm so sorry I fell apart at that meeting, Rick," Robert began.

"Don't give it a thought, Bob. You've done very well for the project since then. This is a great offering you're making."

"The least we can do, in addition to making as many of the microwave probes as we could, is provide these freighters."

"Ahead of schedule, too, by a little bit. All the companies pulled together and made the probes to Dr. Hoshino's specifications. I like his design. His plan should work very well, very well indeed!"

"It's a wonderful design, Rick! Dr. Hoshino is a genius to a degree above everyone else of this generation. We ought to be able to locate any asteroid that Lurton Zimbardo throws at us. But stopping it is a different problem."

"If we find it in time, that shouldn't be too hard, either."

The two friends talked for a little longer, then went out to watch the launch. Seven unmanned NME freighters were prepared to carry Earth's hope into space. They would be accompanied by a dozen armed ships supplied by Space Command. The rendezvous of freighters and warships was only a half-hour's flight time from the space station. Then they would proceed on the eight-day journey to the site of deployment.

In a private office and laboratory below, Robert Nolan's chief assistant Beowulf Denn finished making a voice recording of the details of the launch. He included the number of

freighters, the number and type of Space Command warships appointed to guard them, their course, hour of departure, and timing of the deployment of the probes.

When he had finished the recording, he inserted the disk into a computer independent of the NME computer system and speeded up its contents so that the entire message was less than 0.03 seconds long. He then encrypted it and transmitted the result on a tight beam communicator to coordinates in space which he kept only in his head. After the message had been sent, he destroyed the disk and removed all signs on his computer that the action had occurred. The message he sent could be read only one time and then would erase itself, leaving no trace at the receiving end that it had ever existed.

~

Seven ships had arrived at O344. The Starmen were outside, having sped through the airlock with the first news that the ships from Ceres were at hand. They stood on the edge of the landing zone and watched the ships come close to O344. Only the dark red *Star Ranger* and one other ship touched down. Sim Sala Bim was the first to debark.

“So pleased to see you young men are safe!” he spouted. “So much has happened in these three weeks! Here is your *Star Ranger*, ready for duty!” The Indian was excited. Zip had shaken off his own dark mood and was rising to the challenge. The other two Starmen were eager to lift off and get back into the battle against Lurton Zimbardo.

“Nice to see you, Sim!” cried out Zip, as he and the man from Ceres shook hands through their spacesuits. “George and his men will be ready in a moment. They are wonderful people! Salt of the earth types, though I’ll bet none of them has been on Earth for years!”

“We’ll get them back to Ceres safely, don’t worry about that!” advised Sim. “You just go on and stop this crazy fellow.”

“Let’s get going, Starmen!” urged Zip. They had already made their farewells to the asteroid miners, and had decided to

leave the alien ship on O344 for research in a less anxious time. Joe had sealed it and seen that it was securely clamped to the asteroid's surface.

Within a few minutes, the Starmen were aboard the *Star Ranger* in their accustomed places.

Just before they lifted off, Zip turned on his communicator.

"George," he said. "Thanks for your friendship. You gave me a gift I don't think you're even aware of."

"Oh yes I am too aware of it, David." responded the cheery voice. "The gift of confidence. Do your Latin and find out what 'confidence' really means. Blessing and peace go with you men." A chorus of voices sounded in the background, also offering farewells.

Zip signed off. In minutes O344 was behind them.

~

When Lurton Zimbardo had first announced to Earth that he had aimed a huge asteroid through space on a collision course, the news of impending doom spread over the farthest reaches of the globe, bringing with it hysteria and despair. Pockets of unrest and violence sprang up but the phenomenon was short-lived. The memory of the Collapse was too recent, and the populace would not permit violence to prevail—but there was nothing to take its place. Cities, nations, and then continents ground to a standstill as people left their jobs and homes and wandered from place to place aimlessly. The thought of utter, unprecedented destruction for the whole planet, the home of mankind, struck at the very heart of the people. The very elderly, who remembered the worst days of the Collapse, felt their spirits quail within them.

It was a time such as the world had never seen before. In the years to come it became known as The Day the Earth Stood Still. No one knew where to flee, how to flee, or even if fleeing could do any good. After a time the panic quieted down to a heartless agonizing despair, and a heavy, dark spirit fell over the planet.

~



“Crass, Lather, Bolcher! Get your men and go! The Earthmen have launched their detection equipment!” Lurton Zimbardo was giving orders over the intercom from the control center of his asteroid. Moments earlier the pirate leader had received a message which informed him of the launch time of Earth’s freighters and other details of Earth’s defense plan.

“There are seven freighters accompanied by twelve Space Command warships! Each of you take five ships. Find the convoy and destroy the freighters! At all cost, destroy the freighters!”

Zimbardo slammed down the communicator and watched his men scurry for their ships. At the speed they could travel, they should be able to intercept the convoy in about a week—a full day before optimal site for deployment of the microwave probes. Zimbardo had little doubt of the outcome of the encounter. Earth had no idea that the plans were known to him, and the pirate ships were invisible to their radar.

## Chapter 17: The Enemy Revealed

FOR NEARLY seven days, the convoy of seven NME freighters and twelve Space Command warships had sped away from the Earth-Moon system. The warships flew in a spherical configuration about five miles in diameter, at the center of which were the unmanned freighters in compact formation. The urgency of the mission gave the convoy no choice but to utilize the most direct route to the site of deployment, so that the probes could be put into action at the earliest possible time. There was simply no time to follow any evasive flight plan. On the success of the microwave net rode the hope of Earth’s survival from the threat of impact with the enormous asteroid Lurton Zimbardo had unleashed.

“There they are!” announced Mr. Lather, pilot of the *Silver Cloud*, as he looked at the radar screen. He was followed closely

by five other pirate spacecraft. Two other groups of six pirate ships were nearby, also searching the area of space in front of them for the convoy. "Inform Bolcher and Crass and give them the coordinates. Tell them that since I was the first to locate the freighters, I will attack first. Their ships will follow me according to our plan."

"Yes sir, Mr. Lather," responded the *Silver Cloud's* navigator. The communication was completed and the details of the plan agreed upon. Then the intership communications system was deactivated. The pirates' ships, being sheathed to radar, were equally invisible to each other as to the men of Space Command, but each pirate captain knew where the others were supposed to be. The ships usually communicated by closed-system radio and thereby kept in close contact with each other, but now they could not risk revealing their position by engaging in radio contact when they were in the proximity of other ships.

Moments went by without a word being said. Lather could feel the adrenaline surging through him. He was eager to give the command to attack.

"One minute!" he announced to his own crew. "All hands prepare for battle!" After the designated time had elapsed, he shouted, "Go!"

Followed by five spaceships protected by the radar bender, he sped undetected through the sphere of Space Command warships. On the screen before him the massive freighters loomed up. "Fire!" he shouted. "Fire! Fire!"

A laser cannon locked onto one freighter and ripped open its hull. In seconds the *Silver Cloud* was past it and through the other side of the sphere. Behind him came another pirate ship, and then another. As each passed through the sphere, it fired laser cannons at the freighters.

None of the lasers struck a vital point in any freighter's fuel system, but the potent cannons, each set on highest power, ripped into the unmanned ships and tore them open to the vacuum. Lather's six ships shot through the sphere of guard ships without being detected or even shot at, but none of the freighters had

exploded. Lather cursed when he saw that the damage he had inflicted was not crippling.

The Space Command warships were immediately aware of the attack and began to scatter the freighters by remote control. Some freighters decelerated, others accelerated, still others moved away from the center. Now the pirates would have a more difficult challenge to destroy the NME ships.

As his fleet circled, Lather waited to see what Bolcher's ships would do. He knew where Bolcher was supposed to be but could not communicate with him without revealing his position to the warships of Space Command. Lather could only watch the screen.

Suddenly one of the freighters exploded into incandescent fury. The detonation destroyed the two freighters closest to the one that Bolcher's ship had hit. Within seconds a fourth freighter erupted into flame as its fuel system ignited. The three remaining freighters began to weave in a random pattern, and the Space Command warships began to close in, reducing the window of access to the center of the field.

Crass' ships began to zoom toward the remaining freighters, laser cannons ready. Being the most experienced pilot, Crass was confident that his team could eliminate the last three ships. Coming in at a fast clip, each pirate ship only seconds after its predecessor, Crass' crew strafed the freighters, scoring two direct hits.

With a grin of satisfaction, Lather saw that he would have one more chance to attack. The protective warships had drawn into a very tight formation to protect the last freighter. Its hull was already torn with a long rip, but its engine still worked and it responded to controls. The freighter turned and twisted in a random, spiraling forward motion with the warships close around it. Lather brought the *Silver Cloud* in for the kill.

Shooting smoothly through an opening in the protecting ships' formation, he saw his target and fired. The last freighter blew up almost in his face. All seven freighters—and their contents—had been turned into diminutive pieces of whirling

space junk. The *Silver Cloud* sped through the detritus and passed the far boundary of warships. As soon as he had passed the last Space Command ship, three of them fired at him almost at once. Though he was invisible to radar, he was visible to the eye at the moment he was close to the exploding freighter.

One Space Command laser pierced the *Silver Cloud*—a narrow but tight beam. The shaft of weaponlight punctured the crew's living quarters, and air began to escape from the pirates' spacecraft. Automatic seals quickly stopped the leak and Lather sped on. The exultation he had felt at having fired the final destructive bolt had instantly changed into a cold dread at his narrow escape. Followed by the other pirate ships, he sped on, back toward the great asteroid where Lurton Zimbardo awaited news of their successful mission.

Commander Benjamin Bennett of the Space Command ship *Ignis* sat motionless for ten minutes after the last freighter had blown up. He was a topflight career space pilot who governed one of the few standard Space Command Fleets of Twelve. His black hair showed no signs of gray. Because of his unspotted record and eminent trustworthiness, he had been given the responsibility for guarding the freighters. Usually looking much younger than his forty-one years, now he appeared much older.

No one approached him. Then he spoke, as if into the air.

"I suppose the pirates are gone now."

"So it would appear, sir," said a crewman.

"Obviously they weren't concerned with destroying us—just the freighters. I suppose in the long run it amounts to the same thing, though." No one responded. "Please raise headquarters and hand me the communicator." A crewmember complied. Commander Bennett took the communicator. His message was terse but complete: pirates had attacked the convoy and all seven freighters had been lost.

Twelve minutes later the news came into Starlight Enterprise and was transferred immediately to Richard Starlight, who was at work in his office. He finished listening to the message, then turned and looked out over the stark moonscape. Slowly, he

smiled.

~

The next day, just after noon, Richard was again in his office. Joining him for lunch were John Rwakatare, Robert Nolan, Beowulf Denn, and Commander John Lewis and a few other visitors from Space Command. Though the food was delicious, the meal was a dismal affair. Long faces and few words expressed the atmosphere of the gathering.

Richard, however, and Robert seemed not to share the gloom. Richard was an attentive host, carefully seeing to his guests' needs. "A little more water, John?" he asked, offering the crystal decanter. "Could you please pass the biscuits, Robert? Thank you. Good, aren't they?"

"Yes, Rick, they are, especially for biscuits made on the Moon," responded the head of NME. "Your chef is highly skilled."

Beowulf Denn couldn't take it any more. "You seem awfully lighthearted about everything, Richard," he said in a tone that verged almost on disrespect. Richard smiled but said nothing.

When the lunch things had been cleared away, Richard spoke.

"Thank you for coming, gentlemen. I apologize for not sharing your distress. Please forgive me for what must appear to be an appalling lack of empathy. When you learn why I have brought you here, you will forgive me, I think. I am expecting a message any moment now, and I wanted you to be here when it came in. It is coming from the commander of a large fleet of Starlight Enterprise ships." Richard glanced at Robert. The two friends shared a subtle smile.

"Encrypted message from Captain Marks-Owens, sir," came an artificial, mellow voice through the high-level communication system.

"Ah!" said Richard. "Transmit to my office."

The large screen on the wall behind Richard lit up. He turned his chair. The visage of a tall and slender woman appeared, with

high cheekbones and honey-dark hair drawn back and held in place with a small circlet.

“Captain Mary Marks-Owens on the Starlight Enterprise ship *Tempest*, reporting on top security beam to Richard Starlight. Starlight fleet is in place. There were no incidents, and we are ready for your command, sir.”

Richard smiled widely and said clearly, “Excellent work, Mary! Deploy the probes immediately!”

Beowulf Denn choked. “What is this?” he burst out.

“Surprised, eh?” said Richard jocularly, turning his chair back to the table. “Of course, she won’t get the message for about ten minutes. But when she does, we’ll be able to say, ‘mission accomplished’!”

“What is this?” Commander Lewis echoed Beowulf Denn.

“It was Robert’s idea, really,” began Richard, “and he ought to be telling the tale, but he is too modest to do so. Robert and I cooked up the plan between us and told no one else. Just in case there was a leak somewhere—and apparently there was!—Robert made a fuss about wanting to offer his freighters to convey the probes to the deployment site. He offered rather expensive freighters for service. Robert felt badly about, well, about making a scene when we met with the President and wanted to make up for it.”

Robert glanced down at the table so as not to meet anyone’s eyes, but it was evident that the success of his plan was deeply gratifying to him.

“The NME freighters were decoys. The real probes were sent out on SE freighters to different spots along the face of deployment. They were sent out without any fanfare whatever on the normal delivery schedule we follow for all shipments to Mars and the Asteroid Belt. It would never have done, anyway, to send the probes out in a tight bunch as the seven NME freighters; deployment must be simultaneously effected from several sites, and this is the command I just gave Captain Marks-Owens.

“If the pirates took the bait, then they would go back to their base believing that they had stopped us. And if they didn’t know

about our plans or the decoy, well, no harm done. Deployment would still go on as scheduled. That's about two minutes from now."

The visitors were stunned. "Why, that's terrific!" stammered Commander Lewis. "No one else knew about this? Not even the President?"

"No one," said Richard. "Only Robert and I. And it's a good thing we did it that way, too. Without the decoy, the launch would have gone as planned with everyone knowing about it. As it is, we're safe now."

"Not only that—" contributed John Rwakatare in his deep bass voice, "we've learned something of immense value. There *is* a leak somewhere. Someone informed the pirates of the launch from NME."

"Yes, there's that," said Robert Nolan with a sigh, finally speaking up. "But for now, deployment of the probes will take place successfully. We'll have to check for the leak, and I initiated a careful search as soon as we received news of the attack."

Richard turned back toward the screen. "Computer," he said. "Give me a tie-in to the master control aboard the *Tempest*." The screen showed a scene in space.

"There is a delay, of course, but the feed is continuous. Deployment of the probes is taking place about now, but we won't see the results for about ten minutes." Time passed.

"Coming up on the time now," announced Richard a little later, breaking into the light conversation that was going on around the table. All heads turned toward the screen.

"This is a map of the expanse of the site of the deployment. This is not the actual scene, of course; it is a computer enhancement, programmed to show us what is actually happening."

From twelve sites at once, scattered about evenly throughout the area, small points began to glow. The points marked the locations of the SE freighters that had carried the real probes. Simultaneously from every point emerged a starburst of lines,

each one a fine, golden strand of light.

“Dr. Hoshino’s design propels each probe at about one-twentieth the speed of light. Complete deployment should take about an hour and a half.”

The men waited nervously. Some browsed Richard’s books and others peered through his small telescope at the moonscape. Occasionally two or three would come together for quiet discussion.

On the screen, the golden lines gradually lengthened. From time to time one would burst into a flower of lines like summer fireworks, and then later each of those lines extended and burst again.

When deployment was complete, the entire screen was filled with a complex pattern of golden points, like dawn-illuminated mist hanging in a huge spider’s web.

“Success!” said Richard quietly, but his voice trembled with excitement. “Captain Marks-Owens will now initiate the program that will unify the probes into a single system. At the same time, she will enter a program that will allow the system to read the gravitational forces attendant upon every object within its range. The known asteroids and other heavenly bodies and the scheduled flights of spacecraft will be filtered out. What will be left will be the positions of unknown craft and any uncharted natural objects.” As he spoke, the web began to shimmer in dozens of places, each the site of an object with enough mass to ripple the gravitational-detecting field of the net.

“Ah! Now the known ships are being filtered out,” Richard observed as many of the ripples disappeared. In a moment, he leaped to his feet.

“There it is! There it is!” he shouted. He ran to the screen. “Look! Here are the pirates’ ships that attacked Robert’s freighters yesterday!” He pointed to a small ripple in the pattern and scanned the readings at the bottom of the screen. “Yes, eighteen ships. Here are their masses provided down here. And over here,” his finger swept across the screen to a large ripple in the upper center, “is the asteroid coming our way!



“Computer! Extrapolate the course of this object”—he gave the particulars—“and provide information on its trajectory.”

In eight seconds the voice of the computer spoke. “Object is a natural body of approximately 20,625 trillion tons, currently traveling at a rate of approximately 280,000 miles per hour. If present speed and course are maintained, object will fly by the Earth. Closest approach will be attained in 15 days, 8 hours, 3 minutes, 14 seconds at a distance of approximately 10,689 miles.”

There was silence in Richard’s office for over a minute. Then someone said, “It’s going to miss.”

## Chapter 18: Collision Course!

EXHAUSTED with relief, the party broke up. The men from Space Command left the Starlight Enterprise plant and returned to their headquarters. Robert Nolan and Beowulf Denn lifted off from a launching deck not far from Richard’s office and set course for the space station that was the central facility for Nolan Mining Enterprise.

Richard had already given orders that ships from Starlight Enterprise be assigned the immediate task of pursuing and capturing the eighteen pirate ships that had destroyed NME’s decoy freighters the day before. The SE freighters that had actually carried the probes into space had been joined by SE ships gathered quietly from various sources during the previous week. They had converged during the journey so that many were in place throughout the area of the search, ready to respond to any orders that might come.

Inside many of them were the Firewasp fighters SE produced for use in the Asteroid Belt. The Firewasps were small, tremendously fast and amazingly maneuverable one-man ships that had been concentrated in several SE bases in the Asteroid Belt. They had been named after a menacing insect that had developed in certain hostile swamps on Mars. The tiny craft

served mostly as deterrent, since smugglers and other lawless types avoided any settlement that showed it was ready to defend itself against marauders.

Commander John Lewis was to issue similar orders to Space Command ships in the vicinity of the microwave net. There were enough SE ships close to the course the pirate fleet was taking that Firewasps could be launched to intercept the pirate ships within an hour.

John Rwakatare and Richard Starlight remained alone in Richard's office. They were seated on a sofa, looking out over the vast lunar landscape. An enormous dark gray field stretched out for several miles before breaking up at the far side into jumbled, light gray boulders.

"What do you make of it, Rock?" asked Richard. "Why did Zimbardo tell the entire planet that he was going to pulverize it, and then set his projectile on a fly-by course?"

"I don't think he merely made a mistake," said Rock. "He's shown he can guide asteroids to near-pinpoint accuracy."

"Hmm, yes...but those were much, much smaller and were aimed at much closer targets. You don't think he could have just...aimed and missed?"

"Possible, Rick, but I'm not convinced. Consider this: where did the communications from Zimbardo come from? An asteroid base. The Starmen told us about this hollow asteroid and that it could be 'flown' like a great spaceship. We have seen only one large asteroid coming toward Earth. To be blunt, I think Lurton Zimbardo is a liar. The asteroid he aimed at Earth is his own base! His threat to slam it into Earth was intended to cause panic—and it did! He achieved that without actually having to carry out his threat. I think the real threat is what is *inside* this hollow asteroid."

Richard was listening intently. The relief he had previously felt was evaporating rapidly. He deeply admired and respected John Rwakatare. Rock had a remarkable and rare combination of a filing-cabinet mind and an ability to dream. He was eminently logical at all times, but could also come up with "leaps beyond

logic” in which inspiration confidently answered a challenging situation. Now was one of those times.

Richard remembered when Rock had graduated from Starlight Academy fifteen years earlier. Richard was in his early forties at the time, and recalled the shock that went through the Starlight world when Rock was offered the position of Starman but had turned it down. He was the only person ever to have refused the honor. He had chosen instead to stay close to a young woman whom he loved; they had married and now had four young children. Rock rarely left his family, and Richard had placed him second in command of Starlight Enterprise.

Rock continued. “We already concluded that the ability to sheathe spacecraft and even asteroids comes from an alien intelligence more advanced than our own race. I think it highly likely that the source—at least the immediate source—of that knowledge is the asteroid Zimbardo has taken over. We don’t know what other capabilities this asteroid base has. But we *do* know that Lurton Zimbardo is bringing it to Earth—very, very close to Earth, and that he will be here in fifteen days.”

Richard swallowed hard and looked away. “Rock! —I’m sure you’re right. In fact, what other possibilities are there?”

“But unless he has defenses or weaponry we haven’t seen yet, we have an advantage. A slight advantage.”

“What’s that?”

“He doesn’t know that we know where he is or that we have guessed what he’s really doing.”

~

Robert Nolan and Beowulf Denn made the twenty-six minute journey from the Moon to the space station. Robert had been full of chatter on the way back, but Wulf had responded only with short sentences, and after they had docked they went their separate ways. Robert went to his office to call the President. Richard had urged Robert to be the one to inform him that the probes had deployed successfully, that the microwave

net had found the asteroid, and that Earth was not in danger of collision. Robert felt the honor deeply and was eager to announce the good news.

Wulf found his way to his own private sanctum, saying he wanted to take a nap. He set a “do not disturb” code on his communication system. Then he prepared another audiodisk, making a brief report of the luncheon meeting at Starlight Enterprise. He played it through twice, making changes until he felt comfortable with the message. Then he speeded it up so that the complete message lasted 0.027 seconds, encrypted it, inserted the disk into his personal computer, and transmitted it. After the message had been sent, he destroyed the disk and removed all signs on his computer that the action had occurred.

He stared out the window at the third planet, a beautiful blue and white globe, thinking nothing in particular. After a moment he stretched out and tried to take a nap. But he couldn’t sleep.

~

A red light pulsed rapidly on the console near Lurton Zimbardo’s chair. Seeing the flash from the corner of his eye, he jerked his head around and stared at it as if he couldn’t believe that it was lit.

*What’s this?* he thought. *There’s no message due now.* He pressed the button that deactivated the light, placed headphones on, dialed a few knobs on the console, and pressed “Play.”

Fifteen seconds later he leaped up from his chair and bellowed. With both hands he jerked the headphone cord out of the control panel. The wires whipped through the air with a noise like a scourge. Zimbardo whirled, his eyes bulging, and flung the headphones from him with all his force. The set flew through the command center and collided with the opposite wall. Everyone in the room froze and turned to look at the pirate leader, and were appalled at what they saw. He was trembling with demonic fury. No one moved or said a word. Even Gene was afraid to speak.

“They found us!!” Zimbardo shouted. “*They found us!* The Earthmen know where we are! They’ve located the fleet!! The freighters those fools destroyed yesterday were decoys! The Earthmen deployed the real probes and they’ve already found us! They outsmarted us!” He cursed vehemently, and then growled as if his teeth were grinding on gravel. “But I’ve never been outsmarted! I won’t be outsmarted now!”

Zimbardo jumped back into his chair. “Gene! *GENE!!*” He screamed like a man possessed.

“Right here sir,” said the young man, coming up quickly to the pirate leader’s side.

“Crank up all the power this asteroid can give me! I’m going to create the biggest electromagnetic pulse this Solar System has ever seen, and *BURN every last one of those probes out of the void!!* And then when we are invisible again, we’ll move this asteroid to a new course and continue our plan.”

“But sir,” pleaded Gene, almost desperately. “That would take a lot of power! It would be highly inefficient and might work against us! I don’t know the power capacity of the asteroid! It could very well burn us out!”

Zimbardo stopped moving for a moment, then turned his head very slowly around and stared at Gene. His eyes glinted with an unearthly light.

“Do it,” he hissed.

Gene stepped back half a pace, then pivoted swiftly and ran to the power breakers on the far side of the room. He began to pull switches, override safety indicators, and turn power dials to maximum output.

In a little less than three minutes, he turned and looked back at Zimbardo. The pirate leader had not taken his eyes off of his assistant for a second. With his mouth slightly open, Gene looked into Zimbardo’s eyes from across the room and nodded with a quick jerk of his head. Zimbardo smiled, inclined his head slowly, and turned back to his console. He laughed out loud and pressed the switch that activated a general direction EMP.

There was a deafening sound like that of a huge metal block

falling to the floor and then grinding along an uneven surface. A wailing screech filled the room and everyone but Zimbardo covered his ears. The screech increased in intensity until men fell to the floor and writhed, pressing their hands firmly to the sides of their heads. Then there was sudden silence and the lights went out. Men began to moan, and someone's voice quavered: "The atmosphere recycler has stopped!"

"*Everything* has stopped," said Gene from the darkness.

~

Twelve Firewasps came upon the eighteen pirate ships with a suddenness that took the pirates completely by surprise. The small spacecraft moved so quickly that the pirates could get off only wild shots that never came close to any of the SE craft. The Firewasps used narrow but highly dense laser weaponlight with remarkable effectiveness. Skilled pilots and marksmen quickly disabled the pirate ships by piercing their power supply, effectively casting them adrift in space. The pirates' sheathing systems went down, rendering the ships visible to radar.

The battle was over in less than two minutes. Captain Mary Marks-Owens and Richard Starlight received the news within minutes of each other, that the eighteen pirate ships were derelicts and their crews would no doubt be eager to be picked up by the nearest Space Command ships. Without power, their air would not last more than twenty-four hours.

Richard and Commander Lewis made the next order jointly. With a few exceptions, all Starlight Enterprise and Space Command spacecraft were to journey to the pirates' asteroid at once and prepare for battle. They would bring the attack directly to Lurton Zimbardo.

After issuing the order, Richard reset his communication system to contact the *Star Ranger*. Now that the need for secrecy was past, he wanted to bring the returning Starmen up to date and urge them to come to the pirates' asteroid with the others.

Inside the *Star Ranger*, Mark cried out, "Hey! Listen to this!"

He directed the communication system to public announcement mode and restarted the message from Richard Starlight. In exultant tones, Richard related the events of the previous two days, concluding with the capture of the eighteen pirate ships and the coming attack on Zimbardo's asteroid.

The Starmen cheered. They all jumped up and danced. After a moment, Zip asked, "How soon can we get to the asteroid, Mark?"

Mark sat down and quickly figured. "We're only about a day and a half away."

"What are we waiting for?!" exclaimed Joe.

"Let's go!" said Zip. "We could use a little diversion on our way back to Earth."

Mark set a new course and Joe initiated it. The *Star Ranger* turned slightly to intercept the asteroid where they had been imprisoned nearly three weeks before.

~

As the power system aboard that same asteroid screeched into disruption and then silence, a massive electromagnetic shock wave was dispensed from its surface. A great pulse of destruction moved through space at the speed of light. Although it was not strong enough to harm spacecraft, the microwave probes were no match for its power. As the pulse swept past the probes, they winked out in flashes of golden light.

On the master screen aboard the *Tempest* and in Richard Starlight's office, viewers watched the golden net disappear. Although it was past midnight, Richard and John Rwakatare were wide awake with their eyes glued to the screen. From the center where the asteroid was indicated, an expanding circle of darkness went forth, gradually swallowing up all the probes. It was obvious to Richard that the microwave net was doomed.

"Computer," he said in a dull voice. "How much longer until the net disappears?"

"Four minutes, twelve seconds," came the mellow voice.

“The eighteen ships are adrift,” Richard said. “We can’t lose them. But if this asteroid is maneuverable, as it must be, Zimbardo can speed up, slow down, or change course and avoid our attack. He can disappear.”

Richard’s body tensed and he raised his voice. “How did he know about the probes?!” he exclaimed, with exasperation.

“The spy,” responded John Rwakatare.

~

Aboard the pirates’ asteroid, power was returning. An emergency backup system had kicked in, causing the lights to flicker back on and the atmosphere recycler to hum quietly back into efficiency. With covert glances back at Zimbardo, the men returned to their stations.

Zimbardo barked out a command.

“Status report!”

“Right away, sir,” said Gene, taking his own seat. He attended to various dials and incoming signals.

Zimbardo stood up and walked over to the great window that overlooked the huge rocket pad outside. There were seven ships left—six belonging to the independent smugglers, Jeff Jenner, Lorry, and Captain Kimball, and his own personal ship, the *Tartarus*. Even the *Silver Spear* had been taken by Lorry. The asteroid was nearly empty of men; only his support crew, the smugglers and their crews, and a few others remained.

“Sir,” spoke up Gene. His voice trembled. He spoke as one apologizing. “Mr. Zimbardo. Mr. Lather sent in a frantic message that all eighteen ships were under attack. The transmission was cut off in mid-sentence. I scanned their location, sir, and detected three large Space Command ships approaching our convoy. They are about to be captured, sir.”

Zimbardo turned slowly and looked at Gene without a change in expression. “And?” he said. “There’s more, I can tell. And...”

“And there is a large fleet of ships belonging to Space Command and Starlight Enterprise converging on our location.



In less than three hours, fourteen ships will be arriving within minutes of each other. Approximately the same number again will join them over the next twenty-four hour period.” Gene hesitated, then decided to deliver the last sentence. “Even if we are sheathed, sir, with that many ships so close, they will be able to find us before long.”

Lurton Zimbardo turned his eyes obliquely to the floor and joined his hands behind his back. He rocked for a moment on his feet, almost as if pondering a challenging philosophical question.

“I see,” he said at last. He walked quietly over to his console, sat for a moment without moving, then began to move dials and enter numbers into the navigational program. He consulted various tables of information and referred to a number of measuring devices whose sensitive detectors were on the surface of the asteroid.

Minutes passed. Zimbardo grew increasingly agitated as he worked. His men had stopped their own work and watched him. Where his hands had begun to move gently and carefully, they began to exhibit higher and higher degrees of animation. Soon he was pressing his keyboard vehemently and muttering under his breath. Once in a while he chortled.

Finally he shouted, “Hah! That will do it! I won’t be outsmarted!” He pressed the “Enter” button and then roared, “Yes! I win!” He leaped from his chair and lifted up both arms. “I win!” he screamed.

As the program Zimbardo had activated was engaged, the power it required began draining the emergency resources of the asteroid. The lights dimmed and the usual hum of the atmosphere recycler began to stutter.

“What did you do?” Gene asked with trepidation. “Even the backup power system is being strained.”

“Just keeping a promise,” said Zimbardo jovially. “I told Earth I had sent them an asteroid. I wasn’t very truthful at the time, I’m afraid. But now I have kept my promise. I have redirected the asteroid so that it will collide with the planet! —and I’ve pushed the acceleration up to full!”

A soul-wrenching moan escaped from Gene's lips. He stumbled over to his chair and collapsed into it. He stared ahead, seeing nothing. The other men were frozen in their places.

Zimbardo strolled over to the wall-screen that provided a map of the Inner Planetary system and indicated their position. With the power drain, the images were going in and out of focus and numbers were fading from the screen.

"Hmm. About ten days to impact," he muttered. "Can't tell for sure with the images fading like this, but no matter. By that time we'll be long gone."

A few minutes later the insides of the complex began to screech as they had before. The screech did not rise in intensity but gradually turned into a groan. The light slowly faded and then went out completely.

"The power is out for good now!" Gene wailed, "and we're prisoners on the asteroid! Now it's a runaway! We can't stop it!"

"Why would we want to stop it? We'll take the *Tartarus* and leave to fight again another day! Pack up, get the men, and let's go. We've got less than three hours, I think you said."

Panicked, Gene fled from the room, feeling his way desperately through the darkness. "I've got to warn Kimball, Lorry, and Jenner! We've got to escape!" Fear unlike anything he had ever experienced or imagined filled his entire being.

## Chapter 19: Change of Guard

GENE FLEW down the corridor with his arms outstretched, not knowing exactly where he was going and not caring, as long as it was away from the control deck. He was breathing hard and fast, on the verge of hysteria. Realizing that he was in danger of losing his grip, he paused to catch his breath, and leaned against the wall.

A moment later he saw moving lights in the stairwell a long way ahead. In the growing gray illumination, he dashed forward and saw Kimball, Lorry, and Jenner coming up, carrying

flashlights. When Kimball saw Gene hurrying toward him, he flashed the light directly into his eyes and roared, "What in blazes is going on in this place?"

Gene threw his hands up over his eyes, but continued to stumble forward. "You've got to get out of here," he choked out. "Get your men, get your ships, go!"

Jenner put a firm hand on Gene's shoulder, and Kimball lowered the light. "What's going on? Where's Zimbardo?" Jenner's voice was a little quieter than Kimball's but just as demanding.

Gene gulped and looked up. "He—, he's aimed the asteroid at Earth! It's on a collision course! He burned out all the power—*all* the power! He can't stop it! He doesn't *want* to stop it!"

There was a stunned silence. Jenner, his mouth opening and closing like a fish out of water, finally blurted out, "Why did he do that?"

"All the men in the fleets have been captured! We're the only ones left, and Space Command will be boarding us in less than three hours!"

The three smugglers gasped in dismay. Jenner pushed Gene away and the three of them shot back down the stairwell. When they reached the lower level, Gene heard them shouting for their men. The light gradually diminished until Gene was once again in complete darkness.

"Gene! Gene! Where are you?" came the voice of Lurton Zimbardo from far behind him. Startled, Gene quickly turned and peered into the darkness. From far away came a sound as of scurrying feet. There were men coming—the men from the control center, with Zimbardo. Gene spun again and ran for his own room. He had decided what he was going to do. Frantically he rummaged through his belongings until he found his own flashlight. Without turning it on yet, he ran from the room and hastened farther away from the control center.

"Gene? Gene! Is that you?" came the voice of Lurton Zimbardo. Gene inhaled quickly and looked back. There was still

no light. He hesitated for a moment, then answered,

“Yes, it’s me.” His voice was squeaky.

“Where are you?” echoed down the corridor.

“I’m not going with you! Go on without me!”

“What?” Zimbardo’s voice had a note of complete incredulity in it. “Why not? Hurry up, Gene! We have to go! I don’t want Space Command on my tail!”

*“I’m not going!”* Gene shouted. He turned and fled. He sped down the corridor as fast as he could go, came to its end, turned the corner, and kept going. In less than a minute he was many turns and twists away from the main level. He switched on his light, put it on its lowest setting, and slowed down to a walk. “He won’t wait for me! He won’t look for me! He’ll want to go! Soon he’ll be gone and I’ll be safe!” These thoughts came through Gene’s mind almost like a flow of clear water.

He came to a storeroom, pushed the door open, and flashed his light around. The room was crammed with stacks of boxes and various other items. Seeing there was no one else inside, he shut the door, crawled under a cabinet, and turned off his light.

After a short while, he felt the floor tremble slightly. He knew that a spaceship had lifted off. It was followed quickly by five others. “The smugglers are gone,” he thought. “Just one more now. If I hear one more, I’ll know that he’s gone.” He waited, desperately hoping he wouldn’t hear the sound of the door opening.

~

After they left Gene, the smugglers Kimball, Lorry, and Jenner quickly gathered together their men and supplies and headed for the airlock to the launching pad. There were thirty-seven men altogether. All had their spacesuits on and most of them carried lights.

“How are we going to get out of here?” asked one of the men as they approached the airlock. “The airlock won’t open. Nothing’s working.”

“Portable power pack,” said Kimball. He took a small box

from another man, set it down by the airlock, and in seconds had established a makeshift connection. The airlock opened. In that fashion, the men boarded their ships without delay.

Kimball lifted off first and entered the vast, stone tunnel that led to the outside. As soon as the enormous airlock became visible down the shaft, he fired a laser cannon at it. Unable to resist an attack from within, the great door, thousands of years old, shattered into fragments. The atmosphere of the launching pad rushed out, hurling the shards of the airlock door into space. Kimball's ship then came through the tunnel and exited, followed in short order by the five other ships. They set a course for the Asteroid Belt and at top acceleration left the pirates' asteroid behind them.

~

After Gene had fled out of earshot, Zimbardo turned to the few men who were behind him. "I'm lifting off in the *Tartarus* in ten minutes. It's the only ship left on the asteroid. Meet me at the great doors. Tell everyone else you see." He swiveled and walked to the stairwell to go up to his own rooms.

None of the men said anything to each other, but scattered, each going to his own quarters.

Ten minutes later, arrayed in his spacesuit and carrying a few items, Lurton Zimbardo stood at the great doors. Behind him was the asteroid complex. In front was the manufacturing center and beyond that was the launching pad where the *Tartarus* stood in solitary splendor. Only five men had joined the pirate leader.

"So," said Zimbardo. "Only five of you. Five men left. Who are you?" He lifted his light a little so he could see their faces. "Ah, Mr. Gebbeth. I said before that I knew I could depend on you. I've always known it. You are the pilot. And Mr. Slant. Mr. Stagnum. Mr. Withers. And Mr. Poppy. No one else. Well, then, there are six of us altogether. Let us go."

There was almost no talking. Each man seemed to know what to do without being told. They opened the airlocks to pass through the manufacturing center, and then into the airless

launching pad. Without haste but without unnecessary delay, they entered the *Tartarus*, a gleaming silver and red ship that could support a crew of eighteen.

The six men strapped themselves into acceleration couches with Gebbeth in the pilot's position. "Take us out, Mr. Gebbeth," said Zimbardo. "I will tell you where to go when we are free."

"Yes sir," said Gebbeth, and initiated the launching sequence. In a short time, Lurton Zimbardo's spacecraft had left the asteroid.

"Top speed, Mr. Gebbeth," said Zimbardo. "Make sure the sheathing equipment is functioning. Head away from the sun."

"Of course, sir."

~

When Zimbardo burned out the asteroid's power, much of the energy needed to power its sheathing apparatus disappeared. The sheathing plates then only received power through the solar energy panels, and they did not provide enough energy to hide the asteroid completely. It appeared on radar as a faint blip, allowing the Earth ships to locate it without difficulty. About two hours after Zimbardo's departure, the fleet command ship *Tempest* came upon the asteroid. It was the first of fourteen ships from both Space Command and Starlight Enterprise that were expected to arrive within the hour.

The *Tempest* maneuvered carefully through the gaping orifice left when Kimball's ship had blown the massive airlock, and set down inside the airless docking arena of the asteroid. Captain Mary Marks-Owens descended the ladder first, followed by several members of the crew. All were armed. Only the lights of the spaceship lit up the cavernous hall of shadows.

"Eerie," observed Captain Marks-Owens as she set foot on the pavement. "Follow me. We'll see if the place is as abandoned as it looks." Nine space-suited figures fell in behind her as she approached the airlock into the manufacturing area. When she was unable to open it, she called for a portable power supply. Two additional men brought one from the ship, opened the

airlock, and allowed the landing party to enter the complex. Once inside, the members of the crew were able to dispense with their helmets.

Slowly and carefully they made their way through the blackness, pushing it back with the radiance of the lights they carried. They were in awe of the huge, obviously alien place.

"The place feels almost haunted," observed one man in a quiet voice.

"Somewhat," agreed the Captain, "but there's more to it than that. There's something deeper. I don't think this is an evil place. It is a place that needs to be cleansed."

The party passed through the great doors. Before they had crossed the courtyard a man emerged from the far side, carrying a light. The members of the landing party quickly spread out, and the Captain ordered, "Halt!"

"Don't shoot!" came the voice from behind the tiny light across the room. "I'm unarmed. I've been waiting for you."

"Who are you?"

"My name is Gene Newman. I was the control officer for Lurton Zimbardo. He's gone."

"Come forward slowly, hands up." Gene walked forward cautiously with his hands extended over his head, holding his light in one hand. When he was a few yards away, Captain Marks-Owens ordered him to stop and directed two men to search him. When they had determined that he was unarmed, she called him to approach her.

"What's been going on here?" she asked.

Gene explained that Zimbardo had aimed the asteroid at Earth, burned out the power system, and fled two hours earlier. The Captain's face paled as he told the story.

"Radio the ships that are still en route and have them check the course of this rock," she ordered one of the men, who put on his helmet and contacted the ship. "And tell Mr. Madera to come here at once." The order was given.

While they were waiting for Mr. Madera, Captain Marks-Owens quizzed Gene further. "Why did you stay behind?"

"I—, I joined Putnam's organization because it seemed a sure thing. He was captured, but Zimbardo took over and made it seem an even better proposition. But I could see him getting crazier and crazier! I'm not ashamed to say that he began to frighten me—and he frightened others, too! And when he aimed the asteroid toward Earth..." Gene's eyes widened and he began to tremble, "I knew there was something seriously wrong with him! I had to get away! I wanted to fix things—if I could!"

"Are there any others here?"

"I don't know. There may be. I haven't seen anyone else. Apart from Zimbardo and the smugglers, there were seventeen men left on the asteroid. I don't know how many went with him. There were also some prisoners—three Starmen and some asteroid miners, but they escaped from the room where they were being held and disappeared into the depths of the asteroid. I don't know where they are now. We never saw a trace of them after that."

"They escaped from the asteroid three weeks ago. In fact, we expect them to arrive here soon in their own ship."

Gene's face showed out-and-out surprise at this news. "They *escaped*? They got off the asteroid? How did they do that?"

At this point, they were joined by the young man for whom the Captain had asked. He was about thirty years old, with a full crown of thick brown hair and deep brown eyes. This was Jesus Madera-Cruz, Chief Ioneer for Starlight Enterprise. He was adept with engines and micro-electronics. Noted for a placid nature, nothing ever seemed to bother him, and his expertise in power systems had never failed the trust that Richard Starlight had placed in him.

"You asked for me, Captain?" he asked.

"Yes, Mr. Madera. We need your skills urgently. This is Gene, one of Zimbardo's men. Zimbardo has been gone for two hours. Gene tells us that before he fled he burned out the power. Before the power went out, he also redirected the asteroid on a collision course with Earth. I've asked our ships outside to confirm that. In the meantime, I'd like you to check out the power system and



see if you can bring it back up. Obviously, if what Gene says is true, this is a matter of extreme urgency, not just convenience.”

“Yes, ma’am,” answered the man with a brief nod. The Captain detailed several men to go with Gene and Madera to wherever Zimbardo’s former chief control officer wanted to take them. Gene took them first to the control deck.

Captain Marks-Owens detailed the rest of her men to search the complex in pairs. As other ships landed, minutes apart from each other, she directed their crews to the search. After an hour, ten other pirates had been located. All had been eager to turn themselves in. They were taken into captivity and led to one of the Space Command ships where they were fed and kept under guard.

Soon there were over a hundred men searching the facility. Operations officers began connecting portable power systems to various parts of the complex to reestablish the lights and get the airlocks working again. The atmosphere recycling system was not yet accessible, but the air would last for a long time.

An ensign brought a report to Captain Marks-Owens during the search, confirming Gene’s account that the asteroid was on a collision course with Earth.

“Details?” asked the Captain.

“The asteroid will collide with Earth in approximately eight days, at a speed of nearly 300,000 miles per hour,” responded the ensign. “It was vastly accelerated for a few minutes before the power burned out, and the sun’s gravity continues to increase the rate of acceleration. We have not yet determined precisely where it will strike, but we are forwarding the data to SE and that will be determined.”

At that point, Gene and Madera came up to Marks-Owens.

“Captain,” said Madera. “I have made a preliminary examination of the control system. Gene has been more than cooperative, I am happy to say. With his help, just by looking at the controls and hearing him describe what Zimbardo did, I can conjecture what kind of power we’re dealing with. If we can get the power back on, we should not have any difficulty in

changing the course of the asteroid. Restoring the power, however, will not be easy. Gene has never been to the power plant. In fact, it seems that no one has, even including Zimbardo. No one knows where it is or how to learn its location.”

“Go back to the *Tempest* and contact George St. George and the Starmen. St. George is on Ceres and the Starmen are in the *Star Ranger* on their way here. These men have been inside the power plant and know how to find it.”

“Yes ma’am.” Madera bowed his head slightly and turned toward the airlock that led out to the launching pad. He showed no signs whatever of being ruffled. In sharp contrast, Gene was visibly anxious.

“Gene,” said Captain Marks-Owens; “you’ve apparently been eager to cooperate. Mr. Madera is easy to get along with but hard to please. If he commends you, I am satisfied that you are not a threat to us. You go on to the *Tempest* also and get some food and some rest, as you need. We can’t do more until we hear from the Starmen or St. George. We’ll want you later, and you’ll need to be rested.”

“Yes ma’am,” said the distraught man. He turned toward the SE flagship, swallowed hard, and stepped toward the airlock. He ran to catch up to Madera.

Captain Marks-Owens watched them for a moment, then turned her attention back to the activity of the men who were supplying the temporary power to the complex before her. The grandeur of the view impressed her.

*This place that seemed so menacing when we first landed is beginning to look a little less threatening now, she thought. It’s hard to believe we are aboard a runaway asteroid that will destroy Earth in eight days, unless we can turn it aside somehow.*

## Chapter 20: Desperation

THE *STAR RANGER* sped through space toward its rendezvous point with the racing asteroid. Given the urgency of the situation,

Zip had ordered the maximum acceleration that their bodies could tolerate. Mark had programmed their course to bring them as quickly as possible up to boarding speed with the asteroid. Having done that, he pored through the printed material he had taken from the asteroid's power plant. He felt hopelessness creeping over him since he didn't know what Zimbardo had done to burn it out.

Zip came over and stood near where Mark was seated with a dim lamp illuminating the papers in front of him. The lamp was designed to burn with a soft light tinged with the faintest trace of light green, to be easiest on the eyes. It was devised for periods of long study.

"Anything yet, Mark?" Zip asked, knowing that the question was pointless. If Mark had found even a tiny piece of information which could be remotely connected to the situation on the asteroid, he would have spoken up.

"No, Zip," replied Mark. "I can follow the diagrams pretty well now, and I think I understand how one part connects to another, but I can't envision how any part of it could have burned out. I've tried to calculate how much power Zimbardo would have needed to generate the EMP of the size he did, but I can only guess at it. Even at my highest estimates, I can't see how it would burn out the power supplies of a huge iron asteroid that can be used as a spacecraft. All I can imagine is that much of the power supply of the asteroid had been shut down before."

"You mean that its reserves were not in place?"

"Something like that. We have guessed that the asteroid was a huge spacecraft. We also know that it had been stationary and abandoned—or at least unused—for eons. I suspect that the asteroid's full power had never been accessible to Zimbardo. He was able to operate life-support systems, lights, airlocks, and so forth in his own section without drawing much power. When he tried to 'power up' the asteroid and move it out of orbit, he reached the limit of its available power. Then he suddenly initiated the electromagnetic pulse to fry the microwave probes, but he also fried his own system. But the asteroid *must* have

more power than that to be able to do what it must have done in the past. You saw the power plant as well as I did! Did it look to you as if Zimbardo could have burned that whole thing out with one EMP, no matter how intense?"

"Makes sense, Mark. Where, then, is the rest of the power?"

Mark looked up at Zip with a wan smile. "If you want to find it, you can help me look through these papers."

"All right, I will," said Zip, and sat down. Mark handed him a stack of paper, showed Zip what to look for, and went back to his own study.

Joe remained on the flight deck, keeping careful watch on the instruments. He preserved the *Star Ranger's* course precisely so that there would be no unnecessary delay in meeting the runaway asteroid. Before him was a scattering of white stars in the blackness. A few large ones stood out.

"Mark would love this," Joe thought, but he didn't bother his friend.

~

The best minds of Starlight Enterprise and Space Command had been working for more than twenty-four hours on the problem of diverting the runaway asteroid, and had not even been able to restore power. Twenty-five ships had docked inside the landing area, and more than 300 men and women were inside the facility. Some had been detailed to explore and take an inventory of what was found, others had been ordered to provide temporary light and power using portable equipment from the ships, and still others worked under Jesus Madera-Cruz in the desperate attempt to restore power to the asteroid.

From the communications center aboard the *Tempest*, Mr. Madera had been in contact with SE's best engineers and the Starmen. SE's best hope was in the Starmen since they had been aboard the asteroid and had walked through its power plant. By electronic communication, Mark had been able to provide some of the plans for the power plant to Mr. Madera, but the plant was simply too large and too complex for the plans to be of much

use.

George St. George had given Madera the proper combination of buttons in the elevators to give him access to the warehouse, but even after the portable units had restored power to the elevators they could not deliver men to the warehouse. The elevators would not descend beyond a certain level since Zip had previously destroyed all the panels when the pirates were pursuing them. Consequently, Madera had had to detail men to descend manually through the shaft to the warehouse floor and repair the controls at the warehouse level for one elevator. That had taken nearly eleven hours.

Except for one brief nap, Madera had not slept since the *Tempest* had landed. Once the elevator had been repaired, he went with about thirty men through the same passages that the Starmen had traversed. Since the temporary lighting and power had been set up only in the facility that the pirates had been using, Madera and his companions walked in darkness as deep as the inside of a cave.

Madera hefted a huge but lightweight lamp for use in the power plant. To illumine their way through the warehouse and corridors, others carried personal flashlights. As they made their way through the facility, the lights they carried cleaved the darkness. But behind them, the absolute darkness closed up again.

After leaving the warehouse, Madera had to use the codes the Starmen had provided to come to the immense power plant. Although the men had been told in advance what to expect, when the doors of the elevator opened, they were just as awed as the Starmen and miners had been when they first beheld the scene.

Though the power plant was completely dark and silent, there was a feeling among the men at the elevator door that they were at the edge of vastness. Madera activated his lamp and shone it into the iron cavern. Its light penetrated about half a mile; in its cone the latticework, panels, and tubing were revealed. When Madera saw the extent of the plant, he smiled with deep appreciation, then encouraged the men to get to work.

He assigned them to three groups. They were to spread throughout the plant and search for evidence of any burnout or other damage. The men went forth with lights, tools, and electronic equipment. Madera himself set out to study one of the power stations and try to learn its secrets by personal examination.

~

At one end of the asteroid was the huge landing facility that Troy Putnam had taken over. About two-thirds of the length of the asteroid away was the port through which the Starmen and miners had escaped. Between was an enormous complex of habitable space. At the lowest level was the power plant. Above the power plant was an immense compound, secure from any chance encounter by Earthmen. Access could be given only from inside, and no Earthman would be able to enter by force, short of taking the entire asteroid apart. Indeed, no Earthman even suspected it existed.

Inside this compound, several tall, slender, humanoid figures were working frantically at a panel. Endless banks of dials, screens, switches, and other electronic paraphernalia were set out in the huge room where they worked. The room was dark. Several portable lights had been set in a semi-circle around the panel where the figures were working.

Conversation was minimal and quiet, barely above a murmur. Tools were requested and exchanged. A light was brought over and placed so as to reveal the inner workings of a cabinet filled with circuits and connections.

One figure walked slowly to the far end of the room, carrying a small light. He passed through a doorway, traversed a short corridor, and entered an enormous chamber. He paced along a catwalk. The power in this room was operative. Far above him was an indigo sky with silver stars. A pale blue dawn was showing at the horizon. To his left was an extensive mirror-smooth lake in which the sky and stars were reflected in unutterable beauty. In the lake, trees grew in profusion. It

appeared to be an orchard in flood time, but it was apparent that the trees grew best in a watery environment. Heavy, thick, almost circular leaves covered the trees. Fragrant white blossoms promised fruit in the next season. On the shore were numerous small boats for skimming and a few large ones for working in the orchard.

The catwalk led for about a mile across one end of the lake and had several side passages, all on the right. At the fourth side passage, the walker turned and passed through an airlock. After he had come through the second door, he entered a lightless room that gave an impression of immense spaciousness. Revealed in the shadow of his light were many horizontal gold and clear quartz capsules about eight feet long and two feet in diameter, stacked in rows. Each capsule was connected to cables that led into a large box. Boxes were spaced about twenty feet apart and each was connected to about forty capsules.

The walker opened the top of the box and peered inside. He raised a small communicator to his lips and spoke into it. After receiving a reply, he reached into the box with a long tool. A moment later, dim lights went on in the room and a very low hum started up. The walker smiled broadly and closed the box. Then he retraced his steps.

~

Captain Mary Marks-Owens woke Jesus Madera out of a deep sleep.

"Mr. Madera," she said, approaching him gently where he had fallen asleep in his chair. He had returned to his office and workshop aboard the *Tempest* to study some diagrams he had made in the power plant. "The *Star Ranger* has arrived. The Starmen are waiting for you."

"Thank you, Captain," said Madera, lifting his head and rubbing his brown eyes. He ran his hand through his hair quickly, left his room, put on his helmet, and descended the outside ladder to the floor of the launching pad. He turned toward the control center and saw the Starmen on the other side of the wall.

They all waved at him. Madera was one of the Starmen's favorite acquaintances from Starlight Enterprise. He strode across the tarmac and passed through the airlock and hailed the young men.

After he had removed his helmet and exchanged hasty preliminary greetings, he led them across the quad in front of the manufacturing center and through the great doors.

"What have you discovered?" asked Mark.

"I think I can power up the computer system, but it will take a lot of energy to do so. I used submicroscopic robotic probes to provide detailed maps of the computer in the power plant, and some of the wiring, machines, and selected other equipment inside this amazing facility. I've detailed men to take portable power packs down to the power plant and arrange them in sequence to give us enough power to jump-start the computer. When we do that, we ought to be able to get into the files you found earlier, Mark. Getting the power packs down there is not easy, but with dozens of men working, I estimated that we could get it hooked up in a couple of hours. That was the time I was taking to study some diagrams I'd made, but instead took an involuntary catnap."

"Why didn't you enter the power plant through the hangar from which we escaped?" asked Zip.

"We looked for the opening in the place you'd indicated, but found no evidence of any kind that there was an airlock. We even tried locating it with radar, but the entrance is concealed so effectively that we could find no trace of it. We needed the personnel at this end, so we abandoned the search. Getting to the power plant through the complex here is the long way around, but we knew that we could do it and just couldn't take the time to look further on the surface for the shortest means of ingress."

"We'll have to find some way to open the airlock from the outside when we're not so rushed," responded Zip. "We haven't kept up with the time limit. What've we got?"

Madera sighed. "If we can't move the asteroid, impact with Earth will take place on Thursday, September 8, at 2:33 p.m. That's about six days from now. It will strike in the Atlantic



Ocean just north of the West Indies.”

“How much time have we got to turn it aside?”

“Just a coupla days. After that time, no matter what we do the asteroid will still strike the Earth somewhere. But we’ll be able to move it.”

“You sound confident, Mr. Madera,” said Joe turning his head briefly as the four of them approached the elevators.

“Don’t worry, Joe,” said Madera. “Earth is not ready yet for its Judgment Day.”

Somehow the Starmen believed him. He was neither a Starman nor a reputed scientist, but he was a man of deep dignity who exuded confidence and easily won the affections of the people around him.

Moments later, they were at the site of the activity. The last portable power pack had been set up and connected to the closest console in the power plant.

“Set?” asked Madera of the technician who had overseen the procedure.

“Yes sir, Mr. Madera.”

“Let’s go, Mark.” The big Starman stepped up next to the console with Madera. Mark felt a bit of stage fright. Anxiety coursed through him as he suddenly realized that there was so little time left and that the ability to turn the asteroid aside depended on him. Having an audience of more than thirty men daunted him.

“It doesn’t depend entirely on you, Mark,” said Madera, appearing to read Mark’s mind. “Now let’s power up.”

Mark felt the anxiety drain away. He pressed the power button he had discovered before, when the Starmen had been escaping from the pirates. The computer screen surged into life. The men cheered, and Madera smiled. Joe stretched exultantly and appeared to grow two inches taller.

Zip’s brow remained furrowed. He showed little emotion. For him the time to exult would be when the asteroid had been diverted. This was only a vital step in the process. There were others ahead.

Mark kept his eyes on the screen but spoke to Mr. Madera. "I have a theory, Mr. Madera. There must be power enough in this system, and far more than enough, to turn the asteroid aside. We don't need to find out what Zimbardo's burned out. We should try to get access to the rest of the system. The diagrams I sent you show that there *must* be plenty of power. We just have to find out how to turn it on!"

"That's sound reasoning, Mark," nodded Madera. "And probably easier than trying to locate whatever damage Zimbardo did."

For some time, Mark and Madera conversed quietly as Mark flipped through file after file. Diagrams appeared and Mark's fingers flew over the screen as he pointed out what he had learned while journeying on the *Star Ranger*. Madera nodded, and pointed out several connections Mark had not seen.

Once, Madera handed a small diagnostic pack to one of the technicians and sent him to climb the iron latticework. The man returned in a few moments and gave a report. Madera nodded again and turned to Mark.

Three hours went by. Joe's eyes were drooping, but Zip was still intent, his eyes on Mark.

Mark clapped his hands and turned to Madera. Madera smiled and raised his eyebrows. With an open hand, he gestured to the control panel. Mark nodded his thanks and pressed several buttons. The files changed rapidly at each new command. Then Mark made fists and clenched a few times as if massaging his fingers. Then he raised his hand and prepared to press a button off to the side of the panel.

Suddenly he leaped back a foot, his hands lifted as if he had touched a hot surface. His face was white, his eyes were wide open, and he was breathing hard. His body was trembling as if he were deadly frightened. Zip shot forward, pushing his way through the crowd to reach Mark.

"What is it, Mark? What's wrong?" His voice was urgent.

"The power plant—it's thousands of years old!" Mark wasn't looking at Zip—he was still looking forward, as if his eyes were

being drawn to the controls. "Pressing this button..." he stopped and swallowed hard, and blinked twice. "Pressing this button is the last step in activating the rest of the power plant. It should give us the power we need, but—but it's clear that it hasn't been activated for thousands of years. There's no way to tell whether it's safe. This is a complicated system. If something is wrong," Mark slowly turned to face Zip, "If something is wrong, if a bolt has slipped into the wrong place, if Zimbardo bypassed a vital circuit somewhere, or if a conduit is stopped up anywhere, all the energy this plant can produce could blow back at us. The entire works could explode into a million pieces."

Zip looked at the floor for an instant, then looked up again and stared directly into Mark's eyes. "You're right, Mark; but there's no other choice. You have to do it."

Mark's exhaled quickly. "Oh, I know, Zip—I know. But as I reached out my hand, I had a sudden chill that our destruction was a second away. It just didn't *feel* right. And if this asteroid blows into fragments, then Earth will be peppered with *hundreds* of devastating impacts!"

Zip slowly turned and faced the silent crowd. Every face was marked with grave intensity. Joe stood at the back, his face drawn and tense.

"You all heard," Zip said. "But you all know that we have no choice." No one said anything. A few men dropped their eyes and shuffled their feet. Zip turned to Mr. Madera in silent appeal. Madera nodded very slowly.

Then Mark wiped both hands on his shirt and slowly reached out and pressed the last button.

A distant grinding noise as of gears engaging sounded from far away. There was a whooshing sound as of air filling a giant bag. The grinding sound leveled off into a bare hum. The lights gradually came on.

The men cheered. Mark looked relieved. The tension under which he had been operating quickly released. His face wrinkled up and tears began to flow down his cheeks.

Then the bare hum began to build. It turned into a whine, and

then into a shriek. The floor began to shudder. Mark wiped his eyes and stared at the screen.

“The reaction is starting, but the energy level is climbing much faster than it should! Something’s wrong! *Something’s wrong!!*”

The men began to hear small explosions. There was a popping sound as a flexible tube burst a few yards away. Tinkling glass rained down in several places as light bulbs popped with the influx of too much energy. Mark began to flip rapidly through files on the screen.

All at once a panel a hundred yards away blew out in a monstrous explosion. A burst of brilliant white light blinded the men momentarily. As their eyes returned to normal a loud hiss cut through the air and continued to build. Yellow and orange sparks erupted in a spectacular shower from the damaged panel. Mark turned toward the site with a look of panic. Without warning a connector at the panel lit up with a coruscating orange color. Unable to handle the power surge, it began to melt and fragment. In less than a second, the damage shot through the connector and came to where it entered the computer terminal. There was a sickening, deep “brrzzz” sound, and the screen went dark.

Mark slumped toward the floor. Madera grabbed the Starman before he fell and eased him to the iron deck. Joe ran forward.

## Chapter 21: The Asteroid Over Vanuatu

ZIP was already hunched over Mark when Joe came to the front of the crowd. A few of the men hovered nearby, while others ran to the site of the explosion. Most stayed in place, looking around nervously.

“Is he...?” stammered Joe.

“He sustained a powerful shock,” said Madera. “The energy was too much for that panel and it backed up to the terminal here. Mark had his hand on the keyboard.”

Zip was taking Mark's pulse. Mark's right hand was blackened and his sleeve was frayed up to the elbow. "His pulse is strong. I think he's just unconscious. It must have been quite a blow!"

"Yes, it was," said Madera. "I could feel the power of it just standing nearby! But his heart is beating strongly! Let's get him back to the *Tempest* where he can receive some care!"

"What about the power?" asked Joe, getting to his feet.

"Look around you, Joe," said Madera with a wave of his hand.

Joe and Zip looked out toward the plant.

"Hey!" exclaimed Joe. "It's okay! It's leveled off!" The shriek had diminished to a gentle hum once again, and the sounds of popping conduits and breaking glass had disappeared. "What happened?"

"I think that the panel over there was a huge breaker for this part of the power system. Mark was right. There was enormous danger in starting the plant up after so long. The energy surged through it and even the breaker couldn't handle it very well. It blew up when it couldn't handle the strain any more, and diverted the energy it couldn't absorb back into the terminal here. Fortunately for Mark, by that time there was only a little left." Madera glanced down at Mark. "He's a brave man."

"Yes, he is," confirmed Joe with some animation. He and Zip picked Mark up. With the help of two others, they carried him to the elevator. In less than a minute, all the men were on their way back to the control center and the *Tempest*.

Within ten minutes they were back in the main hall. Through the great doors they could see more than two dozen spacecraft arrayed on the extensive launching pad.

Mark sighed deeply, then moaned. The four men who were carrying him kept up the pace. Joe called out, "Mark! How're you doing?"

Mark moaned again, blinked, then opened his eyes. He stared up at the ceiling, appearing not to see anything. Then suddenly he began to struggle.

“Hey! Hey, what’re you doing?” he cried out. “Put me down!”

“Easy, Mark,” said Zip. “You had a shock, but you’ll be okay!”

“I’m okay *now*! Put me down! I have to fix the panel! Where are you taking me?”

“Everything’s fine, Mark,” said Mr. Madera. “The system leveled out and the power is back on and controlled.”

Mark sank back with another sigh. “Great,” he said. “Put me down, though. I’m all right.” The men set him on his feet, but supported him as he wobbled, trying to get his balance.

“Wow! Am I tired!” he said at last. “Somebody help me to my bunk and wake me when it’s over.”

“I’ll go with you, Mark,” said Joe. With Joe trying to support the larger of the two Starmen, the two of them walked slowly across the quad to the airlock that led to the launching pad.

“We’re still not finished,” said Madera. “We have to steer the asteroid out of its collision course. For that, I think we’ll need some help from an unlikely source.”

“Gene,” stated Zip.

“Gene,” affirmed Starlight Enterprise’s Chief Ioneer.

Jesus Madera reached for his communicator and asked that Gene be sent to him from where he was being held in the *Tempest*. Madera dismissed the men who had been with them in the power plant, then turned to the red-headed Starman.

“I’m sure that Joe or even I could pilot the asteroid if we had to, but it is best that Gene do it—best for him.”

“Of course, Mr. Madera,” said Zip. “I understand.”

While they waited, the Starman gazed around. Far above was the roof of the great chamber like an iron sky. The natural lights of the complex once again blazed throughout the structures. The air seemed fresher.

He and Madera watched Gene descend the ladder and jump the last few rungs to the pad. Then he turned and paced quickly to the closest entrance in the great wall. He came through the airlock, discarded his helmet, and hurried to the small group that

was waiting for him.

"We have restored power," said Madera.

"So I see!" said Gene with a great smile. "That's terrific! Do you want me to pilot the asteroid away from Earth?"

"That's exactly what I want you to do. Let's go."

The three men made their way along the corridors, hastened past open doorways, and took the elevator up one flight to the control center. They passed dozens of SE men and members of Space Command. Captain Mary Marks-Owens was supervising their work.

Once in the control center, Gene took his seat at the main console, glanced at the Starman and the other men in the large room, then stared at the screen before him. He scratched his head, then placed his hands on the keyboard and activated it.

"Whew!" he exclaimed a moment later. "Well over 290,000 miles per hour! It would be better to turn this asteroid aside and pass by the Earth rather than try to bring it into orbit, as Zimbardo had planned at first. We're going too fast for that!"

"My thoughts exactly," said Madera, seating himself on a stool next to Gene. "Let's see how you do it."

Gene plotted coordinates and tracked the trajectory of the runaway asteroid, then calculated the amount of thrust needed to pass the Earth at a safe distance. He figured how much he could slow the asteroid down without putting too much stress on the inhabitants. When he was finished, he turned to Madera.

"Okay?"

"Looks right to me!"

"Well, then...here goes." Gene entered the figures into the primary guidance system and activated it. Tears suddenly came into his eyes. "Oh, please let it be enough, let it be right, let it work," he whispered.

~

The Starmen woke after twelve hours of sleep aboard the *Star Ranger*. Uncharacteristically, Joe was the last one up. He found a note in the washroom that read, "We're on the *Tempest*."

Join us for breakfast whenever you're ready." He washed up quickly and hastened to the SE fleet command ship.

Readily admitted, he found his two colleagues in the dining area. Mark and Zip were just finishing a large platter of scrambled eggs and cheese, potatoes, freshly-squeezed juice, and hot coffee. "I'll have the same, but with tea," he announced, and sat down.

"Yes sir," came a voice from the galley.

"How're you feeling this morning, Mark?" asked Joe. "How's your hand?"

"Couldn't feel better, Joe! Had a good sleep at last, and my hand should be healed in a couple of weeks. It was a second-degree burn."

A few moments later, Gene came out carrying Joe's breakfast.

"Gene!" exclaimed Joe.

"Yes, Mr. Taylor. Just trying to help out a little," said the erstwhile pirate.

"He cooks as well as he pilots," said Mark.

"We're safe, then." Joe made it a statement rather than a question as he shook some pepper onto the steaming eggs.

"Yes," said Zip. "The asteroid will sweep past the Earth in a week, missing it by about 50,000 miles. It will be visible for almost the whole night over the south Pacific, like a fast-moving star. Should be quite a sight!"

"Then what?" asked Joe between gulps of juice.

"Then what, what?" responded Mark.

"Then where does it go?"

"As Gene said yesterday," explained Zip, "it's moving too fast to enter an orbit around the Earth, so Gene steered it into a course around the sun. It will take about seven months to circle the sun just inside Earth's orbit. Then it will catch up to the Earth and can easily be placed into an Earth orbit at that time. Scientists from Starlight Enterprise will live on it and try to learn its secrets. In fact, a ship will be launched from SE in a couple of days with a crew of them. They'll intercept the asteroid and start



the exploration right away.”

Mark continued bringing Joe up to date. “The Captain’s got a team replacing the huge airlock on the surface of the asteroid, and the temporary power supply packets are being reloaded on the ships. We’re in complete control of the asteroid now.”

“Where’s Madera?”

“He finally got a full sleep, then went back into the complex. He can’t wait to find out how it all works. He’s hoping that Richard will put him in charge of the exploration team.”

Joe scooped a large helping of potatoes into his mouth, then talked around it to ask, “Well, when do we leave?”

“I’m excited about this place, and would like to explore a bit myself,” said Zip, “but more than anything, I’d like to go home. We can leave any time we want to.”

“I’d like to see Mr. Madera one more time before we go, and then take off for home.”

~

A day later, the *Star Ranger* was well on its way to Amundsen City. The Starmen were relaxed, seated comfortably at a small table in the lounge, with the ship on automatic pilot. The strains of Bach’s *Little Fugue* filled the ship.

Joe asked, “Is that the disk Montezuma Vly gave us?”

“No,” said Mark. “That was destroyed when Lather melted the *Vigilant Warrior*. This is just part of our standard library. Beautiful piece. But I sure wish we hadn’t lost that disk Montezuma gave us. What a tragedy!”

“Yes, well, Vly did say that we could visit him again. Maybe he’ll give us another.”

“I’d like to see him again, but not for a while. I don’t want to leave home for a long time!”

At the end of their journey, the *Star Ranger* touched down gently on the tarmac at Amundsen Base. The Starmen debarked from their ship, crossed the field and entered the airlock that led into the receiving area. Through the second door, they could see an enormous crowd.

“Man! This place is jammed!” said Joe. “I’ve never seen so many people here!” As air filled the airlock, the Starmen removed their helmets and tucked them under their arms. Moments later they entered the public terminal. A roar went up from hundreds of voices.

“What’s this?” yelled Mark to Zip and Joe. He could barely make himself heard above the clamor.

“Look!” cried out Zip. “Our families!” With a big smile on his face, he pointed to the front of the crowd. There were the boys’ parents—Allen and Elizabeth Foster with Zip’s eight-year old sister, Kathy; Keith and Barbara Seaton; and Charlie and Laura Taylor. All were smiling hugely.

“Wow!” exclaimed Mark. “All these people are here for *us*!”

Although the crowd was being kept behind a light barrier of stanchions and ribbons, as soon as the Starmen came through the airlock, Zip’s sister Kathy ducked under the ribbon and ran toward them.

“David, David!” she yelled. When she was still a few feet away from her brother, she leaped and flew into his welcoming arms. “David, I missed you!” she cried, snuggling her head into his shoulder. “I was so worried!”

Zip smelled the little girl’s hair and realized how much he loved her and his home. A lump came into his throat and he unexpectedly burst into tears, kissed her forehead and her cheek, and whispered, “Oh, Kathy, I missed you too, even more than I knew.”

Zip’s mother Elizabeth had the same red hair that he had, while his father Allen had dark hair, now turning a dignified salt-and-pepper. But Kathy had inherited the best of both hair colors. Her deep maroon hair shone with health. Zip picked her up and she wrapped her arms around his neck; then, pressing his cheek to hers, they came to where their parents were waiting for him. Joe and Mark, neither of whom had any brothers or sisters, were already greeting their parents.

On the evening of September 9, the asteroid streaked through the night sky, drawing the awed attention of people all over the planet. It was best seen from the island of Vanuatu in the south Pacific from just after dusk to the hour before dawn when its glow was overwhelmed by the dawnlight. Had the asteroid not been controlled, September 9 would have been the first of the last days of life on Earth.

The day after, the President presided at a worldwide celebration in honor of the Starmen—a celebration to honor them for their critical role in freeing Mars from the clutches of the pirates. The celebration had been postponed when the greatest threat ever to menace the Earth was engineered by Lurton Zimbardo, and then turned aside.

The Starmen were the subjects of many award ceremonies, dinners and receptions, interviews, and parades. With them were Richard Starlight, Robert Nolan, Jesus Madera-Cruz, and others who had been instrumental in freeing the Earth from destruction. The three Starmen were delighted to see Steve Cliff again, for he was honored along with them for the part he had played in the liberation of Mars. Jack and Jill were also invited, but preferred to remain on the Moon out of the limelight.

The highlight of the celebration was a ceremony on the grounds of the capital in New Washington, when the President presented medals to the Starmen for their valor. The medals had been fashioned from plates in the *Gloria*, the spaceship that had taken Lee High Eagle to Mars in 2014, the first spaceship to carry human beings to another planet.

When it was all over, the Starmen returned to their homes in Amundsen City for a long and much-needed time of rest.

One afternoon, they were in Richard Starlight's office. Richard had not had an opportunity to hear the Starmen's entire story from beginning to end. He had invited them to join him, John Rwakatare, Robert Nolan, and Beowulf Denn for a relaxing afternoon so that the top four leaders of Starlight Enterprise and Nolan Mining Enterprise could hear firsthand the complete tale of the Starmen's adventures.

Tea and coffee were provided in a luxurious silver service that had been in Richard's family for generations—one of the few heirlooms that had been preserved through the Collapse. On the silverware was engraved the letter "R", the only clue to Richard's surname that still existed. Nearly a century earlier, before founding Starlight Enterprise Richard's father Thomas had changed his name to "Starlight" and destroyed all records that spoke of his past.

After the three Starmen had finished recounting their adventures, no one spoke for a long time. Joe poured himself a fresh cup of tea. Most of them gazed out of the panoramic window at the desolate beauty of the lunar landscape.

At length Richard said, "Starmen, you've had some exciting adventures, and in them you've gained something valuable and lasting: you are now a team. You've learned how to work together, how to think like Starmen and act like Starmen. You're experienced, proven Starmen now! You managed to escape from the clutches of the most dangerous, crazed maniac our century has ever seen. And you've had contact, however fleeting, with the second intelligent extra-terrestrial race that Earth has met—certainly ahead of the Titanians and far ahead of us!

"But as far as Starman's work goes, keep in mind that your adventures were the exception, not the rule. I know you've got exciting careers ahead, all three of you! You're three brilliant Starmen and you're a credit to Starlight Enterprise—but your next adventure could be as unglamorous as mapping geological samples in the canyons of Mercury."

"What will happen to Gene?" asked Mark.

"He will be tried with the rest of the pirates. His assistance in turning the asteroid aside and the intercession of Jesus Madera will probably stand him in good stead when his sentence is pronounced."

"What of the aliens aboard the asteroid, sir?"

"Well, maybe they're still there and maybe they're not. We saw no trace of them after your first encounter. My guess is that there were just the two of them, maybe a few more, and that they

departed from the asteroid about the time you did. We have plenty of time now to explore the entire asteroid, and if they're there, we'll find them; and if not, we'll find whatever traces there are to be found!"

But Richard was wrong. Nothing and no one on Earth had the capability of finding and entering the inner sanctum on the asteroid. The revelation of the alien inhabitants would come only if and when the aliens wished it, and even Richard Starlight could not determine or predict when that might be.

Zip said, "But it's not over yet, is it, sir? Whatever or whoever the aliens were afraid of hasn't even been identified, much less overcome. And there are still six pirates who haven't been captured. Zimbardo is still free and we haven't any idea where he is. And the independent smugglers that Gene told us about disappeared without a trace."

Richard suddenly looked serious. "You're right, Zip—and there's still the matter of how Zimbardo knew our plans. Somewhere in our organization he has an ally—at least one."

Wulf Denn set his coffee cup down carefully and remarked, "But for now, things are peaceful. There is no danger anywhere, and no sign of any threat—and the amazing asteroid is ours to explore!"

"Right you are," agreed Rock, "and there are many secrets it can reveal to us. Time enough for us to face tomorrow's dangers tomorrow."

The Starmen were comforted. If even Rock was not on guard, they felt free to relax.

"What will you do now?" asked Robert Nolan.

"Well sir," said Mark. "David's uncle and aunt have invited all of us to go to their farm in West Virginia—our parents and David's sister, too—for a long vacation. I love the stars, but frankly, spending time in the woods and fields, eating home-cooked meals at a large table with fifteen or so people, and sitting in front of a fireplace appeals to me more than I can say!"

"I don't blame you!" laughed Robert.

"But don't get too comfortable," warned Richard, with a

chuckle. "Something will come along before too long!"

"Maybe mapping geological samples in the canyons of Mercury," suggested Joe.

"Maybe," said Richard.

~

A little more than two months later, as the Seatons, Taylors, and Fosters prepared to celebrate Thanksgiving dinner on the farm, the *Tartarus* was speeding through the void.

"We've just passed the orbit of Neptune, sir," announced the pilot.

"Thank you, Mr. Gebbeth. We're making good time." Those who had seen Lurton Zimbardo in his last hours aboard the runaway asteroid would have been surprised to learn that he could be a patient man. As he had done almost obsessively since he had fled the asteroid, he sorted through his thoughts.

"Hundreds of us reduced to dozens, and then dozens reduced to this handful of six. The Superiors promised me power once I had obtained for them the access codes to Earth's primary systems. Access codes! That's all they wanted, and Earth was to be mine for payment! I did my best! But now I will appeal to them directly and they will push these Starmen aside without mercy!"

Certain words used by George St. George are part of the backwoods culture of Davy Crockett, and come from the nineteenth century.

absquatulate	depart, run away
exflunct	exhaust, beat thoroughly
obflisticated	bewildered, confused
ramsquaddle	demolish
ripstaver	a first-rate person or thing
slantindicular	in a slanting direction

In addition to the ten novels that carry the main storyline of the Starman saga, there are also thirteen short stories. The short stories that form part of the Starman saga were written to explain in greater detail a number of references in the novels to adventures that could not be told in full in the main storyline. These “lesser tales” are placed in the books of the trilogy in the most logical place for the reader.

Five of the short stories follow in this place before the ongoing saga of the Starmen picks up with the third novel of the chronicles of the Starmen. In this book, the threat to Earth will take new form. In the dark reaches far beyond the orbit of Pluto, in the near-absolute zero of space, the Starmen will finally encounter the overwhelming power of the true enemies of Earth in **JOURNEY TO THE FARTHEST PLANET**.

## THE CITY OF DUST

*This story recounts the origin of the Wind People,  
and takes place July 30, 2049-August 2051*

### Chapter 1

A grim-faced, unblinking man stared into the southwest toward Eagle Crater. His identical twin brother stood next to him. Colin and Kevin Teagarden had been among the first pioneers on Mars nearly twenty years earlier.

The ridge of the crater was five miles away. The men had left Eagle City in the early light of dawn, after spending three days purchasing and trading for various goods. The supplies they had acquired had been delivered to the top of the crater wall where they had parked their land-sailers. Without delay they had set out for home, when Colin, very much in charge, had brought his land-sailer to a sudden stop, furled its sail, stepped out of it, and turned back to see what was going to happen next. Kevin didn't have to ask Colin why he'd stopped; he knew.

The brothers had black, straight hair, and piercing, sea-blue eyes. They were about forty years old. Their spacesuits were old-fashioned, a little bulkier than those most people wore. Their skin was dark, almost leathery, and covered hard, corded muscles. Their hands bore several small scars from healed-up wounds caused by the frequent use of hand tools. Strong, even, white teeth showed when they smiled, but that didn't happen often when they were away from home.

Shortly after they were married, the men had brought their wives from England to Marston—later renamed Eagle City after the death of Lee High Eagle. High Eagle had been the first man from Earth to walk on Mars. When the Teagardens had arrived, the population of Marston numbered in the hundreds, but even



that many people made them feel crowded. The brothers had remained in the settlement barely a year and then had moved a hundred and seventy miles to the northeast and established a homestead in the desert. Colin and his wife Amanda had twin daughters, April and Renee, now sixteen years old; Kevin and his wife Cynthia had three daughters: thirteen-year-old Cristina, eleven-year-old Jenny, and nine-year-old Molly.

The Teagardens never asked for help and seldom gave it. In the eighteen years since they had moved into the Martian desert, three families had joined them. Newcomers were allowed to join the community only by unanimous consent of the others. The enclave now numbered twenty-two people—nine adults and thirteen children. Fiercely self-reliant, they almost resented their dependence on Eagle City for certain supplies.

As of today, that had changed forever.

News had come four years earlier that an atomic device had been detonated in the Middle East on August 6, 2045. Terrorists had chosen that day, the hundredth anniversary of the first use of atomic weapons in wartime, to escalate the collapse of human culture on Earth. The act had shocked all of human civilization, but it had been followed by several other nuclear incidents. The days on Earth were the darkest imaginable, and there was no sign of relief in the foreseeable future.

The United States produced its own nuclear terrorist: the villainous Reuben Ridger who founded an extremist cult group in 2038. Using tiny atomic weapons, he was responsible for more than two dozen attacks on national monuments and centers of leadership until his cell was located in 2061 and his reign of terror ended.

The population of Eagle City had peaked in early 2045 at 8,541. As the days on Earth worsened, many pioneers yielded to their anxieties and returned home, fearing to be cut off from their families and finding the prospect of extended isolation unbearable. Eagle City was home now to about 1,900 people. The drastic exodus had brought Eagle City to a bare subsistence level.

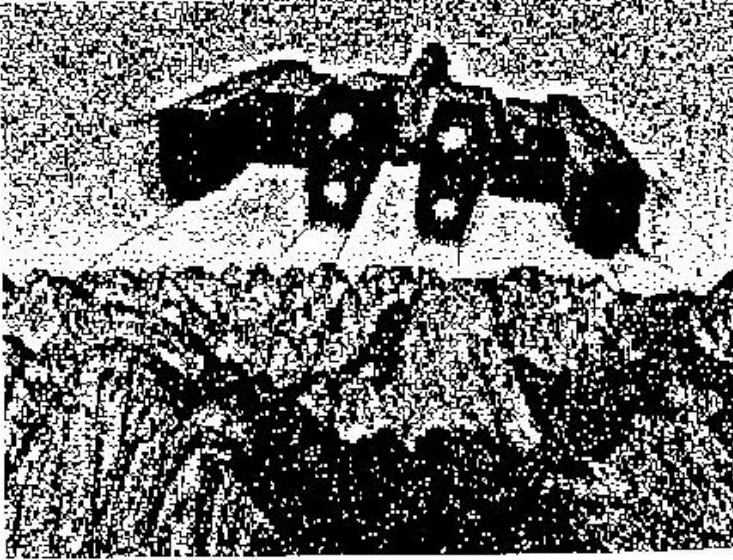
The climate was worse than inhospitable. Terraformation had been in process for only four decades. The warming of the planet had measurable success, but only on the record books. To the citizens, whether it was 75° below zero or 10° below zero was of little practical significance. The winds were still strong and blew with an arctic howl, and what water had been released from the ecosystem had to be chipped off of ice deposits, melted, and purified. No one's life was easy, especially if he lived in the desert.

Now it was July 30, 2049. The last spacecraft in Eagle City was scheduled to depart for Earth. The remaining citizens of the settlement had chosen to remain on Mars and make the best of the bad times. For many of them, it had been an agonizing choice: to return to Earth where leaderless chaos was in the ascendancy, or to remain on Mars where mere survival would be a challenge.

For the Teagardens, it was not a difficult choice at all. They saw the events as bringing about a set of circumstances they had long held as an ideal, but couldn't quite bring themselves to enact: complete independence from Earth and Eagle City. "There it goes," said Colin needlessly. A huge passenger ship had lifted over the rim of Eagle Crater, moving slowly away from the planet on a great blast of fire. It carried the last 357 Earth people back to their home planet. For all others in Eagle City, it was too late now to change their minds. Until another ship came from Earth, whenever that might be, they were independent citizens of Mars.

Colin's brother made no reply. They watched the ship gradually increase its velocity and fly away. The flame became a point of light in the distant sky overhead. The brothers craned their necks until they could see it no more. Then Colin turned to his brother and smiled.

"Let's go home," he said. Kevin stepped over to his land-sailer and took his seat. Colin strapped himself into his own. Without



*A huge passenger ship lifted over the rim of Eagle Crater.*

turning to Kevin, he fired the inflater for the sail and released the brake. The thick, sturdy cloth spread and billowed. Both land-sailers shot forward across the hard-packed desert floor. Behind the seats was an enormous number of boxes, barrels, and crates filled with supplies. The weight kept the vehicles close to the ground, but the brothers' expert handling made the best use of the wind, and the two men sped into the northeast.

## Chapter 2

Their small outpost was not the only one outside of Eagle City. Many dozens of people—singly or in small groups—had established homesteads in the environs of the population center. Few stations, however, were farther away than the Teagardens'. Colin's wife Amanda had wanted to call it New Sussex, after the

place where she had been born, and so it had been for a few years. Colin had never liked that name much, and preferred to name it something that sounded Martian. He wanted to name it after the land he had chosen for his permanent home.

"But there *isn't* any Martian language, daddy," his daughter April had said when she was four.

"Then we'll start making it now, sweetheart," her father had said. He thought for a long time, and then he called the settlement "Ilien".

His brother asked him, "Where did you get *that* word?"

"I waited, and I thought, and I waited some more. The name came to me. It fits," he had said. "It's the name of this place now." So they called it Ilien.

Colin and Kevin rolled into Ilien, powered by the Martian winds that gusted behind them with predictable regularity. A dozen windmills on the tops of a mound of jumbled boulders could be seen from several miles away. Fitted snugly among the boulders was a series of domes which marked the site of Ilien. About fifty large solar cells provided what power that the windmills couldn't.

With practiced ease, the Teagarden brothers unloaded the land-sailers, taking their supplies into the nearest dome. All supplies were loaded into the airlock before it was sealed to the outside and filled with breathable air. Then the inner door was opened and the men removed their helmets. Colin shook his head impatiently and ran his gloved fingers through his damp hair. His suit's atmosphere recycler was not working at its peak capacity. He'd have to adjust it before too long.

"Daddy!" cried out two lovely teenage girls. The twin sisters were slender, and wore their black hair long and loose. They had been watching eagerly through the inner door of the airlock as the men had unloaded the supplies, and ran to their father as soon as the airlock opened.

Colin's taciturnity and hardness disappeared as soon as he saw his daughters, and he embraced them warmly.

“Go tell your mother that we’re back, girls, and ask her to meet us in the common room. Tell everybody that we need to have a meeting.”

“Okay, daddy,” they chorused. The girls, like all the children of Ilien, had been born on Mars and raised in the isolation of the wilderness. The citizens of Eagle City had warned the Teagardens that their children would not fare well in such a place, and needed to be back among people. The Teagardens had paid no attention, and the children had thrived. From the children’s earliest memories, they knew that they belonged to the community and had a needed place in it.

In minutes, all twenty-two members of Ilien were gathered in the common room, from the youngest child of six years old to the oldest, a widower of fifty-nine.

“It is time to move the community,” announced Colin. No one was surprised, for they had anticipated the moment. “There will be no more ships traveling between Earth and Mars for a long time. We are now independent. For years we have been nearly self-sufficient here in Ilien. We’ve needed to go into Eagle City only once a year, where long ago we needed to go in every month or two.

“Kevin and I have planned for this moment. The supplies we brought back on this trip, along with what we can provide for ourselves, should meet all our needs. We don’t need Eagle City any more. It’s time to go out into the real Mars. It is our home now.”

No one objected. People asked questions, but no one was in a hurry. The meeting took as long as it needed for everyone to have a chance to speak and to hear and to understand. At the end, there was consensus, even eagerness to cross a new boundary in the pioneering life.

For the next several weeks, the men constructed additional land-sailers, including some large ones for transporting bulky and heavy items. The women dried fruit, canned food, and took inventory of clothing, making repairs as necessary. Jenny and Molly helped with the gardening and caring for the four goats

the community owned. Cristina potted cuttings and marked packets of seeds. Everyone had a part to play.

Finally the day came when Ilien would be disassembled and the community would begin its journey across the empty land. Once again, Colin called the community together. It was early morning, and the breakfast dishes had just been packed.

“We will leave before noon,” said Colin. “Most of the land-sailers have been loaded with the most essential items. We will cache what we can’t carry on this trip, and will return for the rest once we have re-established our home. Now that we are ready to move, there is one item which is no longer essential. I’ve brought us here to dispose of it.”

The man picked up a crowbar and turned to the computer that served as the communication link to Eagle City and the other settlements. He raised the crowbar over his head, and brought it down with great force on the machine. It crumpled into pieces. Three more times he struck the components. Seams opened in the metal, cables and wires spilled out, and circuit boards were strewn in pieces.

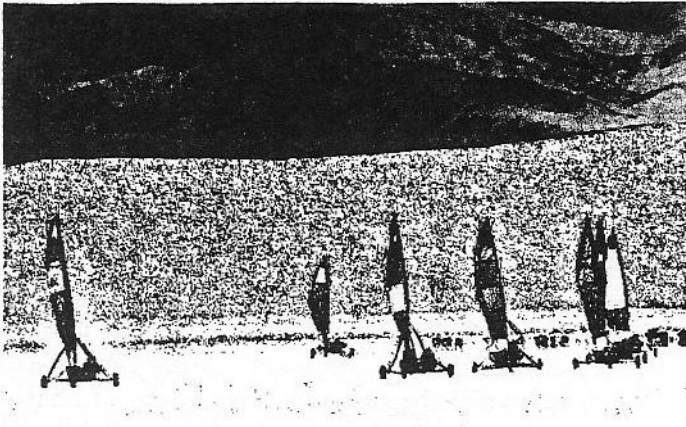
“Now we are truly independent,” he said quietly, putting the crowbar into a packing case.

## Chapter 3

By noon, a dozen land-sailers were skimming along the desert floor. Each of the adults and three of the older children were piloting one of the craft. The regatta sped along in the unimpeded winds of the northern latitudes, moving always east by northeast. Few detours were needed in the flat, featureless terrain.

The Teagarden brothers had plotted their course carefully. They planned on a journey of a little more than a thousand miles across the Thoana Palus. It was a long but mostly easy journey across smooth, uninterrupted desert.

The eerie beauty of the Martian hinterland engulfed the party as it went on, day by day, away from the closest human habitation. Occasionally the great winds edged up into gale force, gathering sand particles into dense clouds. At such times, the party stopped and came together, anchoring the land-sailers and sitting out the tempest. Bleached yellow wraiths of dancing dust went before the advancing wall of sand, heralding the coming storm, and blotting out one by one the sharp-cut lines of the land. The sun with blurred image peeped shyly through the wreathing drift, giving a pale shadowless light.



*It was a long but mostly easy journey across smooth uninterrupted desert.*

Two weeks after their departure, the community stopped. They had found a sheltered area, surrounded by high walls of rock, but with a moderately-sized level area in the midst. In the shadows were huge chunks of ice. Most of the region for several hundred miles in every direction appeared to be covered with volcanic ash.

“Where are we?” asked Colin. The land-sailers had pulled together, and the late afternoon sun was slanting down from the west.

His brother took a reading and consulted a chart.

“Precisely 40° latitude, and 240° longitude,” he said.

Colin was silent for a moment. He lifted his eyes, deep-set under his brows, and scanned the horizon behind them, and the crown of the rocks around them.

“Our new home,” he announced. “New Ilien.”

Over the next few months, members of the community made a total of four round trips to retrieve all their belongings from their former home. By the time winter was drawing near, they were completely settled. The volcanic ash made a good foundation for strong soil. With fertilizer and other nutrients, the little valley became a fertile place under the largest of the domes of New Ilien.

The people ate no meat, but had plenty of fruit, vegetables, and grains. The goats provided milk and cheese. The families planned to eat mostly canned goods and dried fruit in the first year, but expected to harvest their first crops by the summer of 2050.

On Christmas Eve, the temperature was 30° below zero. Blazing stars filled the dome of the heavens from horizon to horizon, and the Milky Way spread its beauty directly overhead. A seedling in a can, decorated with bits of scrap metal, seeds, plastic beads, and buttons, served as the community’s Christmas tree.

## Chapter 4

During the winter months, Colin had spent many hours in the workshop, crafting a device like a hang-glider adapted for the thin atmosphere of Mars. Its wings were larger and slightly more bowed than those used on Earth. He had also added a counterbalance—a weight on a cable that hung down from the glider’s center of gravity—to function almost as a kite-string would.



He had a small machine shop and had learned to make anything that the community needed. There was no need to look elsewhere for help or supplies. Nothing was ever wasted or discarded. Pieces of metal could be machined to make fasteners, wires, cooking instruments, hand tools, gears, and sewing needles. Garbage became compost. Worn pieces of clothing became rags, and rags became ingredients for homemade paper. Odds and ends of various items were used to fashion musical instruments or provide material for games.

In the spring, it warmed up to 5° above. One morning, Colin decided to go a short distance into the plain to the north to try his glider. At those latitudes, the winds were notably powerful, and such winds were necessary for the success of his design. His daughter April begged to go with him, and he consented. With her customary laughing eyes and ready smile, she put on her space suit and joined her father in the airlock.

Two hours later they were huddled behind a large boulder in the plain. The winds had risen with the sun and swirled the dust around them, but not to the point of obscuring their sight. The ground was mostly hard there, and only surface dust swirled in a light cloud—just enough to show them the direction of the wind.

“I want to try it first, daddy! May I try it first?” April pleaded. Colin was unpacking the glider from the land-sailer.

“All right, April. You know what to do,” he said. April had helped him throughout the dark winter nights, searching through books on aeronautics and making sketches as her father designed the glider. She knew it almost as well as he did.

“It would probably be best if you try it first anyway! You’re much lighter than I am!”

“I weigh 105 pounds now!”

“I know, sweetheart! You’re growing up fast! But I weigh 168. It’ll be harder for the glider to keep me up. So you can go first. I’ll follow you on the ground in the land-sailer.”

April strapped herself into the glider with her father’s help. Wings like a bird’s extended from both her arms, and a frame stretched backwards, adjustable to her body length and the

placement of her knees. The counterweight could be dropped or retracted by a hand control when she was airborne.

Looking extremely awkward, she waddled out of the lee of the boulder into the wind, keeping close to the ground so that the wind surged over her.

"Not yet, honey," said Colin. "I'll tell you when I'm set." He mounted the land-sailer. "Whenever you're ready, April!" he cried.

The girl turned her back toward the wind and stood up, spreading her arms. The gust almost blew her over, but she got her legs under her before falling onto her face. The wind sped her along and then lifted her up. She raised her legs and placed them in the fittings in the framework.

"Oooohh, daddy! This is wonderful!" she exulted, skimming like a seagull on the beaches of Earth.

"Pay attention to what you're doing! Watch the controls, April!" shouted her father. He was zooming along under her on the sand. "Don't go too high yet!"

As the glider began to toss and spiral out of control, April dropped the counterweight. It brought the glider back into balance and the girl shot forward into the east. Beaming with pleasure, she soared upward.

"Not too high, April, not too high! Come down lower!" shouted Colin. The girl gradually brought herself closer to the ground, then hovered about twenty feet above her father. Both raced across the Martian plain.

"This is wonderful, daddy! You have to try it! Just wait until Renee hears about this! Wait till *everybody* sees this!"

## Chapter 5

An hour later, when her arms had become so fatigued that she could barely hold them outspread any longer, April came back to solid ground. She released her legs from the brackets that held them to the framework of the glider, and hit the ground

running. When she dropped the wings, the wind passed over her and made her once again a creature of the planet's surface.

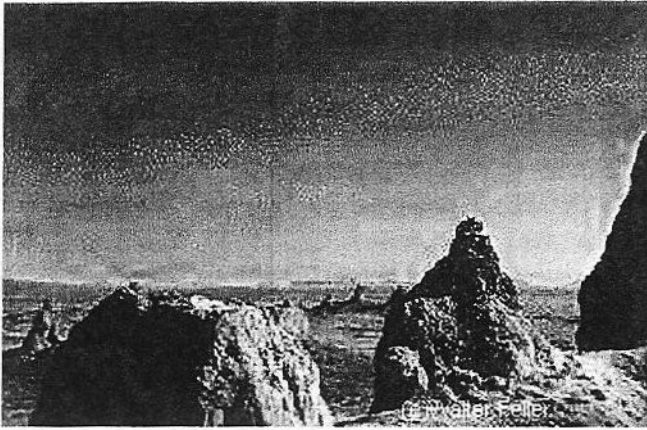
Her father, having braked the land-sailer, ran up to her and embraced her. April's eyes glistened with joy, excitement, and pride.

The two of them set up a bubble tent, removed their helmets, and enjoyed lunch. April couldn't stop talking about her flight.

After they had packed up, Colin adjusted the glider and strapped himself into it. Like his daughter before him, he leaped into the sky and let the wind carry him into the east. April followed in the land-sailer. The man exulted in the feeling of freedom that coursed through him like blood through his veins.

An hour later, he noted that the land ahead rose slightly upward and then came to an end. He wrinkled his brow in curiosity.

*Shouldn't be any kind of formation like that out here, he thought. The map shows only smooth sand for hundreds of miles.*



He spoke aloud. "I think there's some sort of drop-off ahead, April. I'm going to land and see what's up there. Stay close to me."

“Okay, daddy,” came the voice from the land-sailer below him.

Colin decided to come to land before the change in terrain. He didn’t know if there were a canyon, a terrace, or other formation ahead, and was unsure what such a change in the land would do to the wind pattern. He glided into the ground and dropped the angle of the wings so that they were out of the wind’s reach. In seconds, April had pulled to a stop next to him.

Colin packed the glider onto the land-sailer, then let the wind carry them on the vehicle close to where the land met the sky. He anchored the land-sailer, and he and April walked to the land’s edge.

Before them, a gradual slope rolled downward and away into the distance.

“I can see why this wouldn’t show on the maps,” said Colin. “The slope is too gradual to show much, but now that we’re on top of it, we can see that there is a definite change in the topography.”

“Look, daddy!” said April, pointing down to the plain below. “There’s some piled-up rocks down there. It looks almost as if they’re in a pattern of some kind.”

“Let’s go down and look at them. Then we can go back home.” Father and daughter crossed the top of the rise and descended. Their feet raised small clouds of dust which the prevailing winds had deposited on that side of the slope.

Half an hour later they had reached the bottom of the slope and were among the scattered rocks.

Suddenly Colin gasped, with a sharp intake of breath.

“What is it, daddy?” asked his daughter.

Colin’s eyes were huge, almost alarmed, behind the clear glass of his helmet. “These stones have been worked by hand,” he said. Slowly, almost reverently, he reached out and touched the side of a huge boulder. It showed signs of having been scored by sharp instruments.

He looked around him, then continued moving forward into the maze of scattered boulders. The sand of thousands of years

had blown over the field, burying much of the rock, but it was evident that once they had been arranged in a pattern. Gingerly he walked down a lane made by the standing stones.

Fifty yards beyond the place where Colin had seen the marks of carving, they came to a dead end, where the wind scurried and whirled, and the swirling sand had no place to settle. Underneath their feet was clear evidence of pavement. Flat stones were fitted together. One was broken and tipped off balance. A dark opening showed at one end.

“Look, daddy! An opening!” said April, cautiously placing her foot on the place where it dipped down. Suddenly the slab tipped up with a grating sound and her weight shifted. The girl screamed as she lost her balance and began to fall forward.

“April!” cried her father, grabbing for her. He clutched her left arm and pulled her back. The man held his daughter in a close embrace until her heartbeat had returned to normal and she had recovered her smile. Then both turned to look at the upturned slab.

A hole led into the ground. Colin grabbed the slab and pulled it away so that it wouldn’t accidentally fall into the hole it had concealed. Then he pulled out a light and shone it into the opening. Stairs went down about twenty feet, and then a passage went on.

“Let’s go down, daddy,” said April.

“Are you sure, sweetheart?”

“Oh yes, I’m fine! This is exciting!”

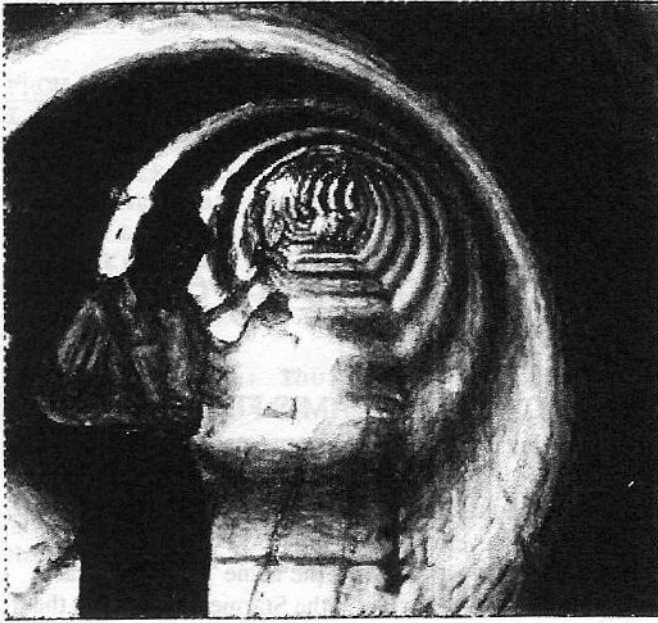
The two of them slowly descended the steps. When they reached the bottom, Colin shone the light down the passage. It continued as far as he could see. He went on, April following close behind. The floor, walls, and ceiling were constructed of large, close-fitting, shaped stones.

After a hundred yards or so, they entered a large room. Overhead was an enormous glass dome, mostly covered with a thin layer of sand. A metal filigree framework held crescent-shaped panes of glass. In places, the sky was visible and the mid-afternoon sunlight slanted in. The entrance of living beings

raised a haze of dust in the chamber that had been undisturbed for thousands of years. Sunbeams streamed through the dome to the flagstone floor below, appearing to ignite dust particles in the air.

Many other unadorned portals were placed around the room, leading into other passageways.

"A city of some kind," breathed Colin. "A ghost city. A city of dust. Primitive people lived here once, long, long before the pioneers from Earth came to Mars."



*Colin shone the light down the passage.*

"Who could have lived here, daddy?"

"I don't know, April. I don't know." The man turned to his daughter. "But we've found evidence that there was life on Mars once, intelligent life. And right now we're the only ones who

know.” He looked around again. “It’s a beautiful place, a sacred place. Can’t you feel it?”

“Yes, I can,” April said after a brief silence. “But what happened to the people who lived here?”

“I don’t know, April.”

“I don’t think this city is completely dead, daddy. I can feel it.”

*Colin and April returned to New Ilien with the startling news of the city of dust. Over the years, they had rare contact with others outside the community and did not keep the existence of the city a secret, but neither did they seek to spread the news. The people of New Ilien built new and sturdy windmills as a major source of power. They also became experts in piloting the land-sailers and in the use of the personal gliders Colin had designed. Within a few years, they had become known as the Wind People. Before long, the term came to be applied to all those who disdained life in Eagle City during the years of separation from Earth, for all who lived in isolated places used the wind for power and transportation. Colin Teagarden was the acknowledged leader of such hardy pioneers, if any could be said to lead such a band of independents. The existence of the city of dust remained close to the surface of Colin’s mind and he often returned to the city to explore it—usually alone, but at times also with Kevin and others of New Ilien. After two years, Colin moved the community again, and the people took up residence inside the city. They called their third home Final Ilien. Their descendants, occasionally joined by others, were still dwelling there in the time of the mutiny on Mars, exactly one hundred years later.*

## THE FLIGHT OF THE *OLYMPIA*

*Jon Cooper wrote this story, loosely based on the sinking of the Titanic, while he waited eight hours in a doctor's office. The story takes place in 2110.*

### Chapter 1

Though it was not known at the time, the year 2110 was a pivotal year for the Solar System. This was the year that Thomas Starlight began his large-scale asteroid mining activities. The Asteroid Belt was enormously rich with resources in heavy metals, rare earths, and a multitude of minerals. Thomas Starlight's success in discovering and mining these resources made it possible for Starlight Enterprise to grow into the gigantic corporation that would dominate the 22<sup>nd</sup> century—the corporation it needed to become to provide the resources necessary to battle the menace from the galactic core. This menace would not be identified for over forty years, but its first appearance in the Solar System took place in 2110.

Simultaneously with the inception of Thomas' mining operations, the abundance of the Asteroid Belt's resources was discovered by another—an alien probe with artificial intelligence. Early that year, the interstellar probe winked out of hyperspace and appeared deep in an uncharted, untraveled region of the Asteroid Belt. The alien probe flew through the Belt, carefully weaving its way through the loose composite of rocks that tumbled through the void of space. Its sensors took note of the wealth in the Asteroid Belt. It noted as well that, far away, there was intelligent life in the Belt—rudimentary settlements, mining supply stations, and spacecraft in transit.

The probe was old; it had left the galactic core centuries before on a mission to explore a large swath of stars stretching from the heart of the galaxy to its rim. The probe had worked its



way far up a galactic arm, and Earth was one of its last stops before it was programmed to return home.

The rapacious civilization that sent the probe depended on loose conglomerates of rock for all its minerals. This race had little technology it could call its own, for what it used it took from the races and peoples it conquered. This race knew how to mine asteroids only because one civilization it had pillaged had developed the powerful machines necessary for that operation. The conquerors did not know how the machines worked, nor did they care: the machines were efficient and serviced themselves, and that was enough.

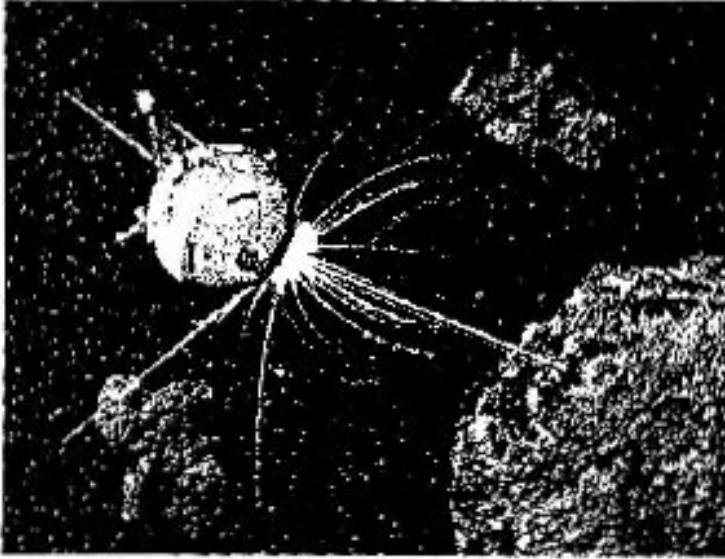
Asteroid belts, however, are rare in the galaxy—rich asteroid belts are especially scarce. To aid them in their search, the conquerors devised a series of probes, and scattered them throughout the stars in search of minerals to support their growing empire. This particular probe had found a number of rich belts, but after exploring the Asteroid Belt in the Solar System for a few hours it realized that it had found a real mother lode.

The probe was going to prepare its report and send it through hyperspace, recommending that immediate mining operations commence. The probe noted further that there were intelligent beings resident in the Solar System not far from the Asteroid Belt, with spacecraft that traveled through the Belt frequently. The probe's report would include a recommendation that these beings be exterminated.

If the probe had sent that report, humankind would have been destroyed without warning. Earth would not have been given the opportunity to gather enough resources to give it a fighting chance against this ancient menace—and there would not have been anyone left to resist the growing cloud of darkness that lay in Earth's future.

As it was, however, the probe did not go completely unnoticed...

The probe was surprised—as surprised as a machine can ever be—when a laser beam suddenly erupted from nearby space and scored a deep groove in the probe’s surface. The probe immediately ignited full battle mode: it raised its deflector shields, activated all sensors, and engaged in evasive maneuvers.



*A laser beam suddenly erupted from nearby space.*

The probe immediately realized how it had been fooled: what it had perceived as just another large asteroid was actually a warship—a powerful warship, intent on turning it into space junk. As the probe desperately sped through the asteroids, it realized it was in trouble: the warship deftly followed its every move, and its offensive locator fields poured an immense amount of power upon its shields. The power drain was not serious yet, but if that warship scored any direct shots with laser weaponry the probe’s shields wouldn’t be able to resist.

The situation became desperate when the probe realized that it could not raise headquarters for help or send its report. The warship had created a disturbance in the fabric of space that would not allow the probe to forge a direct link home.

Suddenly the probe ignited its interplanetary drive, hoping that it could outrun the warship long enough to plunge back into hyperspace.

As the probe began to pick up speed, a nearby asteroid exploded. Too late, the probe's artificial intelligence realized that the setup was a trap: the warship had detonated a nuclear weapon hidden on that piece of rock. The effect wasn't enough to destroy the probe, but it did alter its course slightly. At a speed excelling 300,000 miles per hour, the alien probe slammed into a nearby asteroid and shattered into diminutive pieces of metal.

The warship left the area and traveled more than 25,000 miles to return to its home position inside the Belt. To all appearances, it was only a large chunk of iron, slightly more than forty-five miles long and twenty-five wide.

Perhaps unsuspected by the warship at the time, the battle had been witnessed. The *Excelsis II* robotic explorer from Earth was resting on the surface of a nearby asteroid, busily collecting samples. When the alien probe appeared, however, the *Excelsis II* stopped its work. Its own artificial intelligence system examined the situation.

The *Excelsis II* was not an ordinary robotic explorer: it was designed by the eminent Professor Damien Kinley in an effort to give deep space probes intelligence. The *Excelsis II* was designed with a mission to collect asteroid samples, but it also had the programming to abort its primary mission and follow a different course if it uncovered anything its artificial intelligence deemed to be "more interesting".

The *Excelsis II* watched the entire battle with its long-range scanners. The robotic explorer from Earth wasn't equipped with high-quality optical equipment; it had to make do with radar and infrared. This, combined with the distance the battle was fought,

enabled the explorer to capture only poor-quality, grainy video evidence.

Once the battle was over, the ship waited for several hours to make certain that the asteroid/warship would not return. Then it carefully made its way to the asteroid into which the alien probe had crashed, and gathered a few fragments. The invading probe had hit the rock with terrific force and nearly obliterated itself, but there were a few shards and scraps of metal which were taken aboard the *Excelsis II*.

Then the robotic explorer sent a report detailing what had happened, and that it was aborting its mission and coming home with the physical artifacts. After it sent the message, the ship activated its ion drive and began streaming toward home with all the speed it could muster.

## Chapter 2

Thomas and Sandra Starlight and their son Richard were standing on Starlight Enterprise's L5 space station, waiting to board the *Olympia*, the immense space liner, for a vacation on Mars. The space station was named L5 because it was located at Earth's LaGrange point 5. The date was just two months after the *Excelsis II* had aborted its mission and returned home.

Thomas was a tall, slender man of early middle age, with crisp dark hair and dark eyes. His wife Sandra was slightly shorter than her husband. Though not quite forty years old, she wore her brown hair long and unbound. Richard was an intense young man approaching his 17<sup>th</sup> birthday. His hair was black like his father's. Not openly muscular, he was compact and strong.

In 2110, Earth was just about to enter its second Age of Exploration. People from Earth had been to the Moon, Mars, and parts of the Asteroid Belt, but exploration had not really begun.

The great expeditions to the Outer Planets, the flight to land on Pluto, and the discovery of the Titanians all lay in the future. Thomas Starlight was in his prime at the helm of Starlight

Enterprise. He and his wife Sandra were partners in the development of his company. Their tragic accidental death on Mercury would not take place for another nine years.

Richard Starlight grinned. "This is great, Dad! Imagine! Here we are, on our way to Mars for a real vacation on the great southern sea—and we get to ride the *Olympia* there! You saw it last year when it was overhauled, didn't you?"

His father nodded. "That's right; the atomics professor at the Academy thought a trip to the *Olympia* would make a good field trip for his class, and I went along. It was impressive, to say the least! I've never seen a larger spacecraft!"

Richard spoke up. "Her nuclear fission engines are the largest ever put on a spacecraft! And what's more, she's got *four* of them! With that kind of power, she can whip across the void between Earth and Mars in thirty days! Thirty days!"

Richard paused to let his words catch up with his excitement. "It's hard to grasp, isn't it? It's been making the round-trip Earth-Mars run for years now in 90 days, and I thought that was an impressive figure for a ship of its size. Why, that ship is 1,764 feet long, weighs in at 125,000 tons, and can carry more than 2,600 colonists. It's got a crew of 454, nine decks, and a top speed of—"

Richard's mother Sandra laughed. "You sound like an encyclopedia, Richard! Where in the world did you get all that information?"

"Oh, it's common knowledge—a little research is all it took. Really, though, it's an imposing ship! It's by far the biggest spaceship ever built. Think of all the colonists it can carry, along with all their supplies! Each trip brings with it enough people to found an entire Martian colony. It's a flying city!"

"It sure is!" a voice boomed nearby. The Starlights turned to see Mr. Jonas Starkley, the famous shipbuilder, standing behind them. He was an oversized man in every dimension. The skin of his face was slightly mottled, but the smile he showed was broad and genuine.

Tom extended his hand. "Why, hello Mr. Starkley! This is quite a surprise. What brings you here?"

"The same thing that brings the Starlights here," said Mr. Starkley, taking Tom's hand with a broad smile. "I'm booked to ride on the *Olympia*. I'm on my way to Mars for business reasons; we want to see about building some manufacturing centers on Mars."

The man looked at his watch. "Looks as if we've got about another hour before she leaves; I'll just have time to check with my agent. I don't want to miss this voyage! No ship in space is faster! And after the recent improvements it's had, no ship can be safer."

As the wealthy man hurried off, Sandra turned to Tom. "Mr. Starkley mentioned 'safer'. Come to think of it, the *Olympia* has had a number of close calls, hasn't she?"

The founder of Starlight Enterprise nodded. "Lots. The ship has been fried by solar flares, suffered a devastating asteroid impact, had life support system failures, engine failures, you name it—since it was built in 2096 it's had a lot happen to it. Yet it's always pulled through; the ship's a sturdy one, to be sure, and its crews have been bright people who found a way to solve whatever has come up. I doubt anything will happen on this voyage, though: interplanetary travel is a whole lot safer now than it was when the *Olympia* was built, and all the improvements are always installed as soon as they're available."

The Starlights gathered up their bags and boarded the *Olympia*. Once inside, they found their stateroom and began unpacking. Richard, deep in thought, spoke up.

"Hey Dad, was that Professor Kinley I saw at the hangar?"

Tom paused, then nodded. "Yes—I'm sure it was; I wonder why he's sailing on the *Olympia*. Maybe he's in a hurry to get to Mars, and this ship is the fastest ship in space."

A light dawned in Richard's mind. "Oh, right! I remember now. His probe *Excelsis II* came home early, didn't it? And I'll bet the Professor is hurrying out to the Asteroid Belt as fast as he can go. I wonder what it found that so grabbed his attention?"

Tom shrugged. "I guess we could ask him and find out."  
"If he'll tell us!"

Suddenly the warning signal sounded, and a metallic voice spoke up over the intercom system. "PREPARE FOR LAUNCH. LAUNCH WILL BEGIN IN THIRTY MINUTES."

Tom and Sandra looked at each other and smiled. "Looks as if it's about time to go!" Richard settled down in his acceleration couch and prepared for the takeoff.

~

Outside the ship, two tall figures dressed in flowing, close cloaks were walking around the *Olympia* in the darkest places, searching for a way in. With binoculars, one of them spotted a crew member's door toward the back of the ship's hull, marked "Authorized Personnel Only". One figure nudged the other, and nodded toward the door. The other figure took the binoculars, looked at the door, then handed them back and nodded.

The L5 hangar in which the *Olympia* was resting was a huge space, built to house the *Olympia* when she was being overhauled. The nose of the ship, where passengers were embarking, was well guarded and brightly lit. The rear of the ship, however, was encased in shadows and guarded only by automatic cameras and robots. There was no need to deploy security personnel in that part of the hangar; the area was barred from any casual wandering.

The two figures stepped into the shadows for a moment. Each reached down flicked a switch on a small device attached to his belt. The device was a light-bender which bent the visible electromagnetic frequencies around the wearer, rendering him invisible. The shield was not perfect—one could see a "distortion" as if things were bending behind the wearer of the shield—but it was effective.

Now wrapped in bent light, the two tall beings slid silently toward the ship, keeping to the shadows. Once they stopped and stood still as a crew member peered in their direction, but after

staring for a few moments, he decided he had been imagining things and walked on.

Silently, the beings walked up to the door. Once they reached it, one slid a hand over the electronic lock. The lock clicked open. The beings opened the door and stepped inside.

## Chapter 3

A half an hour later, the hangar doors opened and a powerful space tug flew to the *Olympia's* hangar. The tug and the *Olympia* were linked and the tug began slowly hauling the great ship out of the hangar. Once out of the hangar, the tug kept pulling the great ship into space until the *Olympia* was far enough away from the station to fire its powerful atomic engines without throwing the space station at L5 out of orbit.

At the precise moment, the *Olympia's* atomic motors were ignited and the ship began to pick up speed. The passengers of the ship felt themselves pressed back into their couches by the force of acceleration. The force peaked at a little over two G's, and from that point it steadily dropped. After an hour, the ship's G forces had been reduced to around half a G; it stayed there for another 24 hours, and then the initial burn was completed.

The following day, the Starlights were up and about conversing with the other passengers. They quickly saw that a wide variety of people were present on board the ship. The majority of the passengers were families—colonists on their way to a new life on Mars. Another large group was comprised of engineers on their way to the Asteroid Belt, ready to begin large-scale asteroid mining. In the berth of the *Olympia* was huge equipment, powerful enough to mine asteroids. The *Olympia* carried enough resources to start a new city on Mars and a new base in the Asteroid Belt.

Colonists and hardy asteroid miners were not the only people on board; the first-class section of the ship was filled with vacationers on their way to Mars. The Starlights were among



them. Now that a round trip could be completed in less than three months instead of six, wealthy people were spending vacations on Mars more and more frequently. The vast speed of the *Olympia* opened new doors of opportunity.

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Tom and Richard were standing in the communications room of the *Olympia*, passing the time by talking with the personnel there. The *Olympia* had extensive recreational facilities, and the father and son were enjoying their free time, and liked spending it in the radio lab. Both Tom and Richard were radio hobbyists, and they appreciated high-class radio equipment when they saw it—and the *Olympia* had the best in the business. Passengers were not usually allowed in the communications center, but Tom and Richard were able to get permission. They enjoyed listening to the exchange of intership and interplanetary messages, and seeing the equipment at work.

Eleven days out from Earth and a few days away from the halfway point of the journey, the Starlights were in the communications center when an urgent message came in. When the operator read the message, he whistled. “Man, the Captain sure isn’t going to like this!”

“What’s up, Oliver?” Tom asked, puzzled. He and the operator had become good friends in the days they had traveled together.

“Plenty,” the operator responded. “We’ve got a report from Space Command that there’s a massive cloud of debris ahead of us—spacedust, small asteroids, and so on. If we continue on our present course and speed, we’ll hit it in a little under twenty-four hours. We’re going to have to slow down dramatically, and then move around it.” The operator thought for a moment, then flicked on the intercom. “Captain Conrad, could you come to the communications center please? We have an urgent message that requires your attention.”

A few minutes later, Captain Conrad walked into the room. Captain Conrad was a man in his early sixties, with grizzled white hair and a short white beard. He wore his tan uniform smartly, and was clearly used to giving orders and being obeyed.

“What it is, Oliver?” he snapped. “What’s the problem?”

The operator stepped back from the console and showed him the message. “Space Command has issued warnings that we’re about to plow into a thick area of space debris; they’re recommending slowing the ship and taking evasive maneuvers. If we start deceleration immediately, we can slow down just in time...”

“Just in time to make ourselves the laughingstock of history!” Captain Conrad muttered. He reached over and pressed the “Delete” key, and the message vanished. “Do you realize that if we slow down or take evasive maneuvers now, we could arrive at Mars a week late? We don’t need to slow down. We’ll keep going as we are.”

Richard gasped and staggered back, as if in shock. “Captain, you can’t do that! Why, if we plow into that debris at our present speed, we could destroy the ship. Besides, Space Command regulations clearly state—”

The Captain turned toward Richard. “Young man, I appreciate your concern, but the regulations were written before the *Olympia* was built. This ship is not an ordinary Space Command ship: this is the *Olympia*, the strongest ship in space. The Solar System has thrown a lot at her and she’s still here today. A little spacedust isn’t going to hurt her; we’re equipped with the newest deflective shields. Achieving a speed record and making it to Mars on time is far more important than some arcane Space Command regulations that were written with other ships in mind. They never considered this situation, boy.”

Richard was stunned into silence. He turned to his father to see his reaction, but Tom’s face revealed no emotion. The Captain walked out of the room and closed the door behind him.

## Chapter 4

Most of the passengers were asleep, and the hallways were dimly lit. Two indistinct shimmering figures moved down the aisle to one of the rooms in the main passenger section of the *Olympia*. With less substance than heat waves rippling upward from hot asphalt, they tripped no alarms and were recorded on no video equipment.

A doorway opened silently, revealing the receiving room of a single passenger cabin. The shimmers entered the room and closed the door behind them. Across the apartment a huge window opened onto the vastness of dark space. Curtains were almost completely drawn, but a narrow gap down the middle of the window showed a bright spangle of stars. The placement of the furniture was dimly visible by the starlight.

The carpet showed slight indentations where invisible feet moved carefully across the room. After a short time, a cabinet clicked open. A video-disk was lifted from its storage place, was drawn into the darkness, and disappeared as if covered with a cloak.

Nearby, there were a few small clicking noises. They barely carried a few feet. Then there was a rasping noise, and a locked metal door gave up its grip and slipped open. Inside was a round can about a foot tall and eight inches wide. Like the video-disk, it floated upward for a moment, then vanished, as if it had been wrapped in black cloth.

Moments later, the door to the cabin had opened and closed a second time.

~

In the early hours of the following morning, the Starlights were sitting in their stateroom, depressed. Tom and Richard had spoken to some of the engine men about the message they had overheard the previous afternoon, but the crew members sided with the Captain; they scoffed at the danger a little spacedust imposed, stating that this was, after all, the *Olympia*. She'd run

full-tilt into spacedust before, back in the days before they had advance warnings, and it hadn't fazed her at all. Besides, they argued, the mass of the material they were approaching was a tiny fraction of the mass of the *Olympia*; going through it would be like an ocean liner plowing through flotsam and jetsam.

Richard had been brooding, and finally asked his father why he hadn't spoken up when the Captain had delivered his speech in the communications center. Tom pursed his lips, "Well, son, it's possible that Captain Conrad is right, in spite of his patronizing attitude. Also, I've met a lot of people like him, capable people whose success in great things leads them to pay little attention to details. It's almost impossible to get people like that to listen to you when you disagree with them."

"You're still anxious, aren't you, Richard?" his mother observed. "What would you think about talking to Professor Kinley? He must have an opinion whether the ship is safe or not. I'd feel a lot better myself if I knew this ship was sturdy enough to hit all that rubble and survive."

"That sounds like a great idea, Mom! Let's go find the Professor! I bet he's in his room; I haven't seen him very often on the voyage. He seems to stay pretty close to his quarters."

A few minutes later, the three Starlights were sitting in Professor Kinley's room talking with him. The Professor was a man in his late fifties. He wore an old gray suit over a dark yellow sweater that bulged over a slight paunch. His glasses glinted in the desk lamp to his left.

After Professor Kinley had heard their story, he sighed. "I see," he said as he took his glasses off and began to clean them. "It doesn't sound like a very good situation, does it? I wouldn't really worry about it though. The Captain has been flying around the void for a long time, and he can probably call the situation better than any of us, even Tom Starlight. He's had more experience, you know."

The Professor's jaws tightened. "When we get to Eagle City I'll lodge a protest against him and see what we can do. I'm

unhappy about something myself. I'm terribly upset. I've been robbed."

"Robbed?" asked Richard with incredulity.

The Professor nodded. "Something of unimaginable value has been taken from me—utterly irreplaceable." His fingers spread and twitched slightly. He made fists in an attempt to control his agitation.

"Mr. Starlight," he said, turning toward Tom. "I'm glad you came to see me. I don't mind telling you what I've been working on. You've all heard of the early return of the *Excelsis II*, haven't you?"

The Starlights nodded.

"Well, the reason it returned was because—well, because it found evidence of intelligent extra-terrestrial life."

Tom, Sandra, and Richard felt their pulses quicken. Awe washed over them.

"But now I can't prove it. The evidence has been stolen."

"What was the evidence?" Tom asked.

Professor Kinley related what the *Excelsis II* had seen. He added, "We don't begin to have the science needed to jump in and out of spacetime—that probe came through hyperspace to the Belt from a location light-years away, I'm certain of it. What we're dealing with here is an alien intelligence—perhaps two alien intelligences—far in advance of anything we have today."

The Professor ran a hand through his hair. "What annoyed me is that I cannot figure out what the conflict was all about. Why did the warship attack and destroy the probe? What was the probe doing? Where did they come from, and where did the warship go? All of our explorations throughout the Solar System have yet to turn up a single alien life form—we haven't found so much as a single alien bacterium. The video, however, was the first concrete evidence of intelligent extra-terrestrial alien life. What are we missing? I wish I knew.

"I couldn't see any details of the battle, no details at all. I could see the probe reasonably clearly, because it was much smaller than the great ship, and it was closer to the *Excelsis II*.

But the great ship that destroyed it was completely unidentifiable. All I could tell is that it was massive, *massive*—it had to have been miles long!”

Richard spoke up. “Couldn’t you do any computer enhancements?”

“I tried that, of course, but nothing was improved whatever. I have copies of the video at home, but without the hard evidence they are valueless. I was afraid to announce what I had until I had done further investigation. I’m on my way now to the site in the Belt where the confrontation took place. I’ll find the site of the crash and see if I can find anything that the *Excelsis II* missed. But I’m not really hopeful. My only real hope was the few pieces that I had here.”

“Who could have taken the fragments? Who knew they were here?” Tom asked

The Professor smiled. “Some of my colleagues, but I trust them. No one else knew. It was a professional secret, but not a personal one.”

“Do you have any sketches or photographs of the pieces?” Richard asked.

“Sorry, young Mr. Starlight, but they were cryogenically sealed: I hadn’t even seen them yet myself. They were locked up in a sealed container in that safe over there,” he pointed. “The *Excelsis II* sealed them, and I wasn’t going to break that seal until I was ready to do a thorough and safe analysis. I couldn’t take a chance that there was some deadly alien bacteria on them, or that our own biology would contaminate the sample.”

Tom nodded, understanding what the Professor meant. “Why did you bring the container with you, Professor?”

Professor Kinley looked ashamed, which made his grief all the more desperate. “It was foolish, certainly, to bring it, but I didn’t want to risk leaving it in my office or lab back home.” He looked up with watery eyes that pleaded with touching desperation. “I couldn’t leave it, do you understand? It was the greatest discovery in human history. I—”

The Professor was cut off suddenly by a horrible screech of metal. The *Olympia* shuddered, then shuddered again; there were faint explosions in the background. All at once the lights in the ship went out, and a wailing siren filled the air.

Richard spoke up. "I think we just hit that cloud of dust."

## Chapter 5

Tom and Richard ran out of the Professor's cabin and began racing through the hallway, now only lit by emergency lights. They sped toward the back of the ship, the direction from which the horrible sounds had come.

Suddenly, the power was restored and the lights came back on. Richard and Tom heard the atmosphere recycler hum back into quiet efficiency, and paused in their dash to the back of the ship. Over the intercom, the Captain's voice sounded. "Ladies and gentlemen, this is your Captain speaking. The *Olympia* has just run into a cloud of debris in space. The debris included chunks of stone of greater size and mass than anticipated. The impact has inflicted some damage on the ship, but it is not serious. We will still arrive on Mars on time. There is no cause for alarm: repeat, there is no cause for alarm."

Richard exploded. "Does he really expect us to believe that? There's no way—"

Tom put an arm on his son's shoulder. "Calm down, Richard! Hold on a second. We don't know that any major damage was inflicted; right now we don't know anything. Let's go investigate and see what happened."

Richard took a deep breath, exhaled, and relaxed. "You're right, Dad, I shouldn't jump to conclusions. But if the captain *isn't* telling the truth, how can we find out what's really happened?"

"We'll go find Oliver. Let's look in his quarters and see if we can talk to him without being overheard."

Father and son went through the passenger section. No one seemed concerned. The Starlights passed through the ship to the crew's quarters. In two or three minutes they came to Oliver's cabin and knocked on the door.

"Who is it?" came the muffled response from within.

"Tom Starlight." The door was jerked open and Oliver pulled Tom and Richard inside.

"How'd you get here?" the communications officer asked. "The captain ordered the crew not to talk to any of the passengers! You should have been stopped before you got into this section of the ship!"

"No one stopped or even questioned us. All the crew seemed pre-occupied."

"I'll say they were pre-occupied! The ship's damaged—damaged badly. It can't be fixed this time. We've radioed for help, but the *Olympia* can't last for more than a few hours!"

"What's wrong with it?" Tom's voice was tense but alert.

"Look at this," said Oliver, and indicated his crewman's computer terminal. The *Olympia's* computer system was secure from all access except authorized personnel. Oliver tapped into the damage report section, and Tom and Richard read through it. The blood drained from their faces.

"This ship is in trouble," Tom said quietly. "The rocks caused a lot of deep gashes, but those were sealed automatically—at least most of them. This area here," he gestured to a region of the ship, "is now vacuum. It's been automatically sealed off."

"Right!" said Oliver. "The problem, though, is with the water circulation system. When the main impact took place, it broke down the deflective shields for a few seconds. That's all it took. High-speed dust riddled the water circulation system with holes, and now all the water has evaporated into space. It's only been ten minutes, but we're done for! The *Olympia's* done for!"

Richard looked at the screen, not quite understanding. "But Oliver, we still have supplies of water on board, don't we? We won't die of thirst."



Oliver shook his head impatiently. "No, Richard, the system that was destroyed was the coolant system for the nuclear reactor. Water was used to take heat from the atomic pile. Now, that system is not operating. There is no longer a way to take heat from the reactor. The temperature of the atomic pile will continue to climb—"

"Until it melts down!" Richard's eyes grew wide. "Oh, no! Dad, what are we going to do?"

## Chapter 6

Tom turned to Oliver. "We've got to alert the colonists, get everyone out in the life crafts—"

"The captain is afraid of panic. He says there will be time enough to inform the people once the rescue ships are close. There are three of them coming at top speed, but even so the closest one won't be here for over four hours! Who knows if the *Olympia* can last that long?"

"Let's go see the Captain," asserted Tom. He strode from Oliver's cabin with Richard in his wake. Oliver remained in the crew quarters, not wanting to brave the Captain's presence.

The interview with the Captain was brief and fruitless. Captain Conrad smoldered with anger that someone other than the crew had found out the true condition of the great ship. Tom refused to enlighten the Captain of the source of his information.

In spite of all urgings, Captain Conrad flatly refused to make a general announcement that the *Olympia* was doomed. "I will make an announcement when the rescue ships are a half hour away. I will not be the cause of any panic, and I will see to it that you, Thomas Starlight, and your son, are put into custody if you do not give me your word immediately that you will wait upon my announcement."

Tom and Captain Conrad engaged in a silent duel with their eyes. Neither backed down.

“I promise,” Tom said at last, but it was obvious that the Captain had won no battle.

“And you, boy?”

“I promise,” Richard echoed. Then he and his father left the bridge. They returned to their stateroom where they found Sandra waiting for them.

“Pack up,” said Tom. “We’re leaving the ship in a few hours. We’ll wait here in the stateroom for the Captain to announce that we are abandoning the *Olympia*.”

*In later years, Richard Starlight rarely referred to the incident that so nearly cost him his life, but he never forgot it. The sight of the mighty spaceship Olympia erupting into a massive burst of incandescence just moments after he had boarded the Mary Sue was permanently etched into his memory—as was the later trial and conviction of Captain Conrad for criminal negligence. In the confusion of the Olympia’s last hours, Richard lost track of Professor Kinley and never had contact with him again. For years afterward Richard was careful to ensure that Starlight Enterprise was cautious with its technology, and he succeeded well—until he and his friend Robert Nolan made a mistake in the design of the Starventure that caused the Starmen’s voyage to Nyx to turn into a terrible disaster. The account is described in the third Starman adventure, JOURNEY TO THE FARTHEST PLANET.*

*Professor Kinley never did discover anything further about the battle the Excelsis II had witnessed, nor did he learn why his container of artifacts had disappeared from his stateroom or who had been responsible for its loss. The destruction of the Olympia overshadowed all other concerns of its passengers. More than forty years would pass before Starman David Foster would uncover the answers independently, though by then Professor Kinley’s questions had been long forgotten.*

## THE CAVES OF MERCURY

*Starman fan Dennis Tuchalski read Master of Shadows in May 2011. This was the novel we had described as The Final Starman Adventure; more than one person asked us not to be so definite, but we were determined to hold firmly to our decision that no Starman books would follow Master of Shadows.*

*So Dennis wrote to David on May 22, 2011: "OK, my question to the Starman team - what about a prequel? I would be most interested in knowing about Richard Starlight's background. Where did he come from, how did he become what he is, etc. Also - the story of the first Starman. It seems to me that a story starting with Richard in the beginning stages of his life and ending with the first Starman would be a very interesting read."*

*Jon and David were intrigued by Dennis' idea. We felt that enough information about Richard's early life had been sprinkled throughout the existing books, but no account of any adventures of Richard's father Thomas and the first Starman had ever been told. David proposed to Jon that we should write a short story that would tell how the concept of "Starman" originated, and recount the first Starman's first exploit.*

*A little information about the first Starman had already been published: in chapter two of Mutiny On Mars it was revealed that as of 2150, Starlight Enterprise had created only 209 Starmen. It was further revealed that the name of the first Starman was Ezra Hill. Readers were also told that Starlight Academy was founded in 2103; the first Starman had to have been created a few years after that date.*

*Drawing on this information and pondering a plot for a new short story, David observed that although there were references in the saga to exploits that had occurred on Mercury and Venus,*

*no Starman tales were set on either of the first two planets; he suggested to Jon that an adventure on Mercury could be interesting. Jon replied, "As it turns out, one of the Starman books was set on that planet, but we ultimately cut it out. Perhaps we can recycle a variation on this plot idea." (In our early ambitious plan of writing 23 Starman books, this was Starman #11, The Caves of Mercury.)*

*So that's what we did. Thankfully, in a few places in the published books there are references to mining expeditions from Starlight Enterprise to Mercury, so a rationale for a short story already existed. The new short story, "The Caves of Mercury", bears the name of a never-written Starman novel, and is dedicated with thanksgiving to Starman fan Dennis Tuchalski, who asked that this story be told.*

## Chapter 1

### *Many thousands of years ago*

The temperature inside the tunnels was even higher than the merciless heat on the surface of the first planet. The miners were well aware of the extreme temperature and had designed their robots well. The machines were able to function handily in the 800°F intensity.

The digger robots squirted out liquid lead under pressure, blended with sharp quartz crystals. The mixture abraded and scoured the walls of the tunnels and freed up the rich ore that was buried twenty to thirty feet below the surface. The recycler robots scooped up the spilled lead and crystal mixture and fed it back to the diggers. The refinery robots took possession of the chunks of ore and began to break it down on the spot so as to extract and retain the rare earths.

The mining operation consisted of two spacecraft, one manned command ship and an unmanned freighter. The command ship remained in orbit around the small planet, and by keeping itself always on the far side of planet from its sun 36 million miles away, it avoided the powerful radiation that continually struck the sunward surface of the world below it. The freighter was almost twice the size of its companion, and rested on the inhospitable surface, adjacent to the openings of several tunnels that led into the top layers of the sun-hardened rock. Into the freighter's roomy hold the refinery robots deposited nearly pure rare earths.

For three weeks the mining operation had been under way, and the results were encouraging. The rare earths were much needed by the race that was mining them, and the supply was plentiful. The difficult journey to this innermost planet of its system and the hazardous endeavor of extracting the rare earths was worth the time, effort, and expense.

At last the freighter was full to capacity. The command ship loaded its robots into the freighter. The freighter eased its enormous bulk and heavy load from the surface of the planet and made orbit. Then the two ships linked together and began the long return journey to their home planet.

## Chapter 2

### *Sometime in the 2030s*

"We leave in five days to return home," announced Zenzile Masekela, captain of the mining operation on Mercury. Her twenty-seven crewmembers from the Republic of South Africa received her general announcement gladly. Surface conditions on the sunward side of the first planet were always extremely challenging, but they had learned that unusual solar activity would make the difficult venture even more intense than usual,

and their two bases, located nine miles apart, would rotate out of the dark side of the planet into the sunside in a week.

After the announcement, Oliver Ntini, the captain's chief assistant, met briefly with Masekela in her office aboard the mission's lead ship, *Ku Thixo*.

"We have collected only about eight tons of ore," said Ntini, "and that will yield us roughly 335 pounds of rare earths before we launch. It is not much for two month's labor, but it should cover the cost of the expedition."

"And more," responded Captain Masekela with a confident nod, "and more. It is not just the unusually high level of radiation that requires our early departure. High radiation would make further mining perilous, but probably nothing we couldn't endure." She looked down, and then said softly, "It is also the political situation."

"Of course," said Ntini, his somber tones quickly matching the captain's change of mood. "You have received an update from South Africa." It was a statement, not a question.

Masekela nodded. "A message from my brother came in just a few hours ago."

Both Masekela and Ntini were of the Xhosa people, as were most of their crewmembers. Nearly all had family members in the Republic, which was currently highly unstable. The collapse of the government was expected to occur within the forthcoming twelve months—perhaps, even, within two months. The fall of the regime would mean the end of interplanetary missions for the foreseeable future, especially risky ventures such as the expedition to Mercury. More than that, the ensuing chaos would put all South Africans under threat, and the spacefarers did not want to be away from their families at such a time.

"I'll see to the refinery," said Ntini. "It will take all of the five days to extract what we've got. I suppose that we can stop further mining then?"

The captain agreed.

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“Four hundred and two pounds!” said Oliver Ntini five days later, with satisfaction. “Much more than I estimated!”

“Under the circumstances we’ve done well,” said Captain Masekela. “Now prepare for launch.” The brightness on the horizon showed that sunrise was only a few hours away. The shadows at the sites of the African mining operation were new and long, but growing shorter as the first planet’s nearly 30-day-long night was coming to an end.

Within the hour the *Ku Thixo* and its companion ship, the *Usisikelele*, blasted off from the surface of Mercury.

This was the third and last venture of the Republic of South Africa to Mercury in the twenty-first century. The records of their journeys, including the purpose of their operations and the results they achieved, would be encrypted and concealed. There was probably no practical need to do so, but in the unstable international and political atmosphere of the 2030s, such secrecy was common among nations and peoples.

## Chapter 3

### *About eighty years later: September 3, 2112*

Thomas Starlight, the founder of Starlight Enterprise, was on vacation with his wife Sandra and nineteen-year-old son Richard in northern California. Their last vacation had been two years before when they had gone to Mars on the luckless last voyage of the immense spacecraft *Olympia*. Now, in the summer of 2112, they were on Earth, eager to enjoy the inspiring beauty of the Sierra Nevadas.

The company that Thomas had founded nine years earlier, Starlight Enterprise, was now on firm footing, supported by highly profitable mining operations in the Asteroid Belt. The company was expanding into new ventures, leading the rest of civilization in rebuilding the economy and the fabric of society after the calamitous decades of the Collapse.

Thomas had left the leadership of Starlight Enterprise in the capable hands of his top personal assistant, Keerthi Nair. Keerthi was a young Indian woman of winning personality, well trained in business and organizational skills. The long-term but temporary headquarters of Starlight South Pacific was located on Vava'u in the Kingdom of Tonga. While Thomas was away, she was responsible for overseeing the ongoing construction of Starlight Academy, designed to be the largest artificial island ever built. For over nine years manufacturing had been under way, with completion anticipated in 2114.

Thomas had chosen the South Pacific as the site of the Academy because of its year-round tropical climate that was unaffected by seasonal changes or challenges, and definitely encouraged good morale among his staff and students. The Vava'u island group included several islands ringed by white sand beaches and others with tropical forests, sea-level caves, and dramatic limestone cliffs with breathtaking vistas. Remote and truly unspoiled, the waters around Vava'u were crystal clear with abundant sea life of over a hundred species of colorful tropical fish, giant clams, manta rays, sea turtles, and spinner dolphins.

Living in such a place of pristine beauty made the Starlights' choice of a vacation spot difficult, but eventually they had chosen northern California, with its spectacular mountains and alpine terrain.

After two days of simple rest and plain, healthy country food, Thomas and his family had set out for a three-day hike on a thirty-two-mile loop trail through Tuolumne Meadows in the California Sierras. The clear sunny skies reminded them of the South Pacific, but the terrain was decidedly subalpine. Each day was filled with a leisurely ten-mile walk through some of the most beautiful country in North America, and ended with a camp at a station provided by the Forest Service.

After a rest of two days, they decided to visit Kearsarge Lakes Basin. Ages before, glaciers had carved out the valleys set among the sharp-peaked mountains, and alpine streams had



filled the low spots, creating a chain of blue lakes that reflected the clear skies and the gray mountain peaks that reared over them.

As Thomas, Sandra, and Richard were gazing with admiration over the Kearsarge Lakes, Thomas received a call from Keerthi Nair. Tom recognized who was calling and elected to receive the message.

“Greetings, Tom,” said Keerthi. Her smiling face appeared on the beamscreen that appeared in the pure air of the high Sierras. “You’ve gotten some sun, I see.”

“Hello, Keerthi,” answered Tom. “Yes, we’ve been outside a lot. My skin tans pretty easily.” He smiled boyishly and with one hand ruffled his thick dark hair. “Is everything alright?”

“Oh yes; construction on the Academy is coming along as it should. That’s not why I called. I thought you might want to know right away that I finally found the records of South Africa’s mining venture on Mercury eighty years ago.”

A surge of excitement showed in Tom’s face. “Really? Good work! I’d almost given up on that. Well done, Keerthi!”

“Thank you, Tom.”

“Is there anything new in their records, anything we didn’t already know?”

Keerthi’s expression showed puzzlement. “Well, yes, maybe, in a way. Something curious. As you know, our Bartus satellite in orbit around Mercury continues to give us good spectroanalysis of the surface composition, and has located several deposits of rare earths that are easily accessible to mining—assuming we are able to establish a mining base on the planet. Bartus has identified eight sites to date where rare earths are in enough abundance to consider a mining venture. South Africa’s mining exploits were located on five of these sites as well as two others that Bartus shows to be barren of any valuable ore.

“However, Bartus also shows one site of exceptionally rich deposits of rare earths that is not in South Africa’s records. Yet South Africa must have had at least rudimentary spectroanalysis capability eighty years ago or they wouldn’t have gone to

Mercury at all, much less found the five sites where they set up a mining operation. I cannot explain why their records do not show the richest site of all.”

“Not much question there, I think,” responded Tom. “We know that in the years right before the Collapse there was much tension among the nations, and many attempted to keep their research secret. Records were falsified, left incomplete, or encrypted. You know better than anyone what a challenge it was to locate even what you’ve got. More than likely, South Africa didn’t want anyone to know of the rich site. They must have a record of it somewhere, buried even more deeply than what you’ve unearthed.

“No matter now, though. Your research confirms what Bartus has already shown us in even greater detail. I think we can pick up where South Africa left off. But...”

Tom paused a moment, looked away from the screen and gazed over the chain of lakes that lay before him. Then he made a decision and gave his attention back to Keerthi.

“Before we make a final decision to commit to the project, I’d like to send an unofficial explorer out to Mercury, not a company expedition. There’s no way of knowing how South Africa may respond if someone like us takes over their mining venture, although it’s almost a century old. Is, uh, is Ezra Hill in Tonga?”

“No, Tom. I believe he’s in Amundsen City.”

“Would you please contact him and ask him to meet me in Vava’u on September 22? Let him know that I’d like him to go to Mercury on an unofficial exploratory mission. I’ll be back on the twentieth, so that’ll give me a couple of days to get caught up before I meet with him to discuss details. And please keep this plan under wraps until we can investigate any South African claim to the mines. Tell Ezra that too.”

“Very well, Tom. I’ll see you when you’re back.”

*September 22, 2112*

“It’s good to see you, Ezra,” said Thomas Starlight, shaking hands with his visitor. “Please sit down.”

Ezra Hill was an old classmate of Tom’s from their university days a couple of decades earlier. After Tom had founded Starlight Enterprise, he’d hired Ezra as one of his first employees. Ezra was 42 and unmarried. He was tall and muscular, filling out his clothing well. His hair was cropped short and was thinning a little on the top.

“Keerthi said that you want me to go to Mercury,” began Ezra after a few pleasantries, “and that I should keep the plan to myself. It sounds more than a little intriguing.”

Tom filled Ezra in on the history of the mining operations on Mercury and his hope that such an endeavor could be renewed by Starlight Enterprise.

“We have much better technology now,” concluded Tom, “and may well be able to manage a profitable and useful undertaking. Of course, it will take a select type of person to work the mines, but if we pay them well I’m sure we can find suitable personnel.

“What’s uncertain,” Tom began, looking away and running a hand through his hair, “is whether South Africa has any claim to their former sites. There’s very little archival material available, and none of it is very informative. Of course I have no idea whether there is any other information that hasn’t been made public. So...”

“So you want some ‘unofficial’ exploration done on site to see if it’s worth the effort to start the operation that someone else abandoned nearly a hundred years ago.”

“Precisely!” said Tom with a grin.

“And I’m the one you want to go!”

Tom smiled broadly.

“Just what does ‘unofficial’ mean?”

“I’ve given that some thought,” said Tom, “and have actually expanded my original notion far beyond just a simple,

unannounced visit to the first planet.” Tom leaned forward, his expression full of excitement.

“I can see forming a group of highly skilled, devoted venturers who will be connected to Starlight Enterprise and, in a sense, working for the company, but for all practical matters working as independent explorers. The company will train them—at Starlight Academy—give them their charge, and of course cover all their expenses. But they won’t be ‘employees’ in the usual sense—at least, as that term is understood. They’ll answer to me directly, when they answer to anybody. They’ll be responsible for exploring anywhere in the Solar System, not only for the sake of Starlight Enterprise, but for the good of all civilization.”

Tom leaned back, joined his hands together, and waited for Ezra to respond.

For some time his visitor said nothing. He looked out the window at the expanse of buildings and landing fields that made up part of the facility of Starlight South Pacific. Beyond the campus he could see the beginnings of a green field bordered by tall palm trees. In the farthest distance was a spread of white-capped water and a deep blue sky.

He looked back at Tom.

“A number of people with almost complete freedom to do what they want but expected to be pioneers in space exploration, with all expenses covered by the company, and answerable only to you.”

“Well, not ‘answerable’, really—at least not like a private army. I can see the relationship to be one of honor and trust rather than a contractual kind of agreement. The best worlds of almost complete freedom on one hand, and the support of a major organization on the other. No ‘red tape’ to get in the way.”

“And you see me being the first one? On this Mercury venture?”

“Yes, I think that’s just what I have in mind.”

“What will you call these people?”

Thomas offered a wry smile. "Call them? I hadn't thought of a name, no. I've only thought about the idea and what it might look like." He paused a moment. "Well, 'Space Explorer' comes to mind."

"Starlight Enterprise Space Explorer. SESE." Ezra rubbed his chin. "Maybe. How about 'Planetologist' or 'Planet Explorer'? That would describe your mission to Mercury, in a way. But you're not thinking of limiting the work of these people just to planets, of course."

"No, it'll mean more than that. Solar Explorer? For those exploring the Solar System..."

For a few moments neither man spoke.

"Starman?" said Thomas. "That carries a lot of weight. It implies being connected to Sol, our own star, but other stars as well, and the planets around them."

"It's got a graceful feel to it, too. The term is... inspiring, almost lyrical. You're thinking far ahead, aren't you?"

"Yes. As soon as I said it, it felt right. I think that's the term. Starman. We'll be creating a class of Starmen."

Tom looked up into Ezra's eyes. "And you'll be the first." He leaned forward again and put his hands together. "I like it. How about some coffee? Let's see if we can plan this Mercury venture in a little more detail."

## Chapter 4

### *Mid-October 2112*

Starman Ezra Hill's departure from the Starlight Enterprise base in Amundsen City was intentionally inconspicuous. The *Elizabeth Ashlie*, a well-supplied one-man spacecraft, lifted off mid-morning in October, the second of five launches scheduled for that day. His flight plan had been filed merely as "special errand for Thomas Starlight, destination to be provided for the record at a later time." Tom guessed that it would take his

officials time to get used to the idea of a corps of special venturers being able to launch and land more or less on their own terms. His personal intervention with normal procedure for today's launch was done almost matter-of-factly.

It wasn't that the journey to Mercury needed to be kept particularly secret, but he wanted to set a precedent, a pattern, for future Starmen. Even the term "Starman" had not yet been made public. At present, only he and Ezra knew that they were inaugurating something quite unprecedented. Ezra's successful return would be the platform on which Tom would announce his new vision.

Ezra's voyage to Mercury would take 118 days—just short of four months. The new Starman was used to making long journeys through space, but never had he embarked on such an extended flight, and doing so solo would be a new experience for him. He expected to spend about two weeks on Mercury, exploring several sites. The return trip would be a little shorter, but even so he anticipated being apart from human companionship and conversation for more than eight months. For that reason he reserved much of the necessary research on Mercury to the first part of his voyage.

Ezra was a well-disciplined, seasoned spaceman, and kept to a rigorous twenty-four hour day throughout the duration of his flight. He ate, slept, exercised, studied, labored, and rested according to a strict schedule. The longest he had been in solitude before had been ten weeks, but he had established his disciplines well and wasn't too concerned about being able to endure a span five or six times as long as that. Besides, Mercury was interesting, and he felt the honor of being asked to take on Tom's special project.

The days passed, turning into weeks and then months. Hill adhered to his meticulous routine. He kept his days predictable, having programmed his computer to sound an alarm when it was time for him to wake up in the morning, to begin and end his exercise routine, his study period, his time for recreation, and the time to maintain his logbook. He had already selected which

books he would read and in which order. His favorite pieces of music, and the music he had planned to learn to appreciate for the first time, were played in random order during the fixed time of his evening meditation.

Rigorously he monitored the ship's systems for propulsion, life support, and damage. Each week at precisely the same time he exited the ship, tethering himself to the ring adjacent to the airlock, and walked over the surface of the *Elizabeth Ashlie*. His instruments showed no damage, but he made a painstaking visual inspection just the same.

Christmas came, followed a week later by New Year's Day. Gradually the sun became larger in his viewscreen until the day came when it appeared to be nearly three times what he was used to in the Earth-Luna system. At last the first planet became visible without instruments. Hill made fine adjustments to his trajectory and came into orbit around his goal.

## *February 10, 2113*

Starman Ezra Hill flew the *Elizabeth Ashlie* over the surface of Mercury. He took four and a half hours to circumnavigate the diminutive planet in close orbit, cruising at a little more than 2,000 miles per hour. He had seen maps and video records of the surface, but he was fascinated by what he was now seeing firsthand. Meteorites at one time had heavily bombarded the planet. Like Luna, with which he was very familiar, Mercury was heavily cratered with regions of smooth plains, but its terrain was more complex and varied than Luna's. There were highlands, plateaus, mountains, escarpments, and valleys.

Mercury's surface had places of marked wrinkling, with numerous strange narrow ridges, extending up to a few hundred miles in length. Gently rolling, hilly plains in the regions between craters were Mercury's oldest visible surfaces, predating the heavily cratered terrain. The surface of the planet was flexed by significant tidal bulges raised by the Sun—the Sun's tides on

Mercury being about seventeen times stronger than the Moon's on Earth. Like the Moon, the surface of Mercury had incurred the effects of space weathering processes, including solar wind and micrometeorite impacts.

The planet had no natural satellites and no substantial atmosphere. Unlike Luna, it had a large iron core, which made the planet exceptionally dense. Its core generated a magnetic field, though a very weak one: only about 1% as strong as that of the Earth. Surface temperatures ranged from almost -300°F up to 800°F, with the bottoms of craters near the poles being the coldest places on the planet.

Hill eased closer to the surface, slowing his spacecraft incrementally until he was only a mile or two from the floors of deep craters and cruising at less than a hundred miles an hour. He had decided to make his first landing near the south pole, a place of eternal shadow, never exposed to direct sunlight, where temperatures remained perpetually below -275°F. Mercury's poles were among the coldest places in the Solar System. Huge deposits of water ice were found there, containing about a fourth the amount as that found in the ice sheet of Antarctica.

The *Elizabeth Ashlie* touched down with such gentleness that Hill hardly noticed. He shut down its engines and a bottomless silence fell. The persistent squeaks and hisses and low hums that were part of a spaceman's life while in flight, the unremitting background noises that he gets used to and disregards, shocked him by their sudden absence. For the first time in four months, Hill was in a cocoon of absolute silence. For several minutes he didn't move at all.

Then he blinked his eyes, sighed deeply, and left the bridge and went to the galley. He boiled water and brewed a pot of strong black tea, spooning one load of sugar into the pot. He returned to the bridge and unhurriedly drank three cups, one after the other, until the pot was empty. As he sipped, he gazed out at the black landscape. Stars sprinkled the heavens above the horizon, but below it there was only emptiness.



Starman Ezra Hill washed out his cup and the teapot, then donned his spacesuit and went to the airlock. Minutes later he stepped onto the surface of Mercury. For three hours he explored the terrain near his landing spot. His suitlights made him a hazy sphere of illumination that wandered in all-encompassing darkness like a will-o-the-wisp. He trekked aimlessly across smooth, stony fields, crossed an occasional ridge, and kicked a rare loose stone. Pockets of ice covered with a thin layer of regolith extended down from low slopes. With a wry smile, Hill cut out a chunk of ice from a deposit harder than iron. He retraced his steps to his spacecraft and took the ice into his lab where he analyzed it. Assured that it held no dangerous elements, he melted it and made himself another pot of tea.

## Chapter 5

The next day Hill flew over the Caloris Basin, the largest crater on the planet, almost one-third the diameter of the planet itself. Its center was located at the shadowy zone between the day and night sides of the planet. The impact that had created the basin was so powerful that it had broken the crust and caused lava eruptions, and left a concentric ring over a mile tall surrounding the impact crater. The Starman landed near the center of the crater and took some rock samples for later analysis.

Directly on the opposite side of the planet, also in the shadowy zone, was a large region of unusual, hilly terrain created by shock waves generated during the Caloris impact that traveled around the planet and converged at the basin's antipode. Hill lifted off from the Caloris Basin and less than an hour later cruised slowly over the antipode. The weird terrain was unlike anything he had ever seen. The high stresses of the shock waves had fractured the surface, creating a hodgepodge of ridges and wrinkles, among which were set crevasses and deep, narrow, tortuous canyons.

At midday, or what his ship's system defined as midday, he settled the *Elizabeth Ashlie* down near what had been the largest South African mining site eighty years earlier. He stepped out near open pit mines that had known no activity for nearly a century. For the next several hours he surveyed the area, taking samples of soil and refining the maps and analyses that the Bartus satellite had created. There were two abandoned workstations with discarded mining equipment such as empty fuel tanks and single-use vehicles. The Starman walked over tread marks and footprints nearly a century old. He examined heaping mounds of crushed stone, and recorded that, with current Starlight technology, it would be possible to extract usable rare earths from what the South Africans had left as slag.

For the next four days the Starman explored key sites on Mercury, including all of the mining sites and a few potential others that showed a promise of profitable mining.

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On the fifth day after his initial landing near Mercury's south pole, the perilous nature of being on the surface suddenly showed itself when the Starman was caught without warning in a "magnetic tornado"—a twisted bundle of magnetic fields connecting the planetary magnetic field to interplanetary space. A burst of solar wind carrying its own magnetic field whipped across the broad, empty plain where Hill was working and connected with Mercury's own weak magnetic field. As the solar wind blew past, the joined magnetic fields twisted up into a vortex-like structure.

It was nothing that Hill could see or feel until it was upon him. The twisted magnetic flux tube formed an open window in the planet's magnetic shield, and the solar wind entered and directly impacted Mercury's surface. The electronics in Hill's suit sputtered and surged, burning out some circuits, and then dropped, creating unpredictable levels of electronic power as the suit's emergency system sought to override and overcome the

churning power levels outside. Hill dropped what he was doing and sprinted for his ship, nearly a quarter of a mile away.

Three minutes later he blew through his airlock, breathing hard and moaning in pain. His suit's air circulation and temperature maintenance system had failed in the last twenty seconds of his flight, and its internal temperature rose from 72°F to almost 180°F. He peeled himself out of his suit as quickly as he could, leaving its pieces scattered over the deck as he ran for the shower. His body had suffered first degree burns over most of its surface, with second degree burns on the backs of his hands, upper thighs, and the tops of his feet.

A cold shower put a quick stop to the course of the burns, and a slather of ointment initiated healing. Medication dulled his pain, but the Starman knew that any further work—indeed any movement at all—would be painful for the next few days. He drank several quarts of juice over the next few hours as he alternately worked on overhauling his suit and slept.

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Five days later, Starman Hill brought the *Elizabeth Ashlie* to his final planned landing site on Mercury. He had saved for last the site where he expected to achieve the best results of his exploratory mission. This is where the Bartus satellite had shown the highest concentration of rare earths anywhere on the planet.

The Starman stepped out of the airlock and moved gingerly toward the site of the mine. This was the site that the South African records had failed to mention. Right away, Hill could see why. This was quite a different type of operation from the other sites he had investigated. This was no open pit mine; there were several artificial caves cut from the sides of slopes that reared up into high mountains. There was very little slag. No tread marks were apparent.

Hill was puzzled. For a moment he wondered whether the South Africans had worked this site at all, but Starlight had no information that any other nation had gone to Mercury, not even

for simple exploration, much less any mining endeavor. Only the South Africans were known to have operated on Mercury. He tentatively concluded that a different kind of operation had been tried at this site, or perhaps another company had done the work from the Xhosa firm that was known to have worked the open pit mines.

Starman Hill entered the closest of the caves. The shaft penetrated the rock in a clear cut fashion. Hill was impressed at the quality of the work. The tunnel spiraled downward on an easy slope, making movement easy. Seventy-three feet into the mountain and twenty-four feet below the surface he came to the end of the tunnel. He noted pools of lead embedded with small quartz crystals. After puzzling over his discovery, he concluded that the miners had squirted the mixture under very high pressure to loosen the ore from the walls of the tunnel. He cut small samples of ore from the sides and end of the tunnel, and then retraced his steps.

He explored a second tunnel and found much the same. He noted that the outside temperature was 812°F. He frowned at that. It would be a challenge for Starlight Enterprise to design mining equipment that was able to work efficiently in that heat. Nothing like that had ever been designed—or needed—before. He knew that Tom was fully aware of the conditions on Mercury, though, and had top researchers who could devise the equipment needed for the project.

Just then his suit alarm went off.

*What now?* thought Hill as he checked the circuits. His eyes opened wide as he realized that his suit's detectors had identified the first wave of intense solar radiation that was about to engulf the planet. The sun had erupted a massive solar flare! A massive amount of charged particles was on its way, inexorably rushing onward like a monstrous ocean wave. Again, Hill sprinted for his ship. In minutes he had lifted off, and in an hour had taken refuge on the dark side of Mercury.

It would be several days before the effects of the solar flare diminished to a level that would not threaten his ship's

electronics systems. The Starman had taken ore samples from the caves, and decided that it was not necessary that he return to the site where he had gathered them. His samples had confirmed and expanded on the data that the spectroanalysis had provided: there were abundant rare earths on Mercury in several sites, most especially the one that the South Africans had kept secret.

He spent four days in the darkness double-checking his ship's systems and its hull. It needed a few repairs. When he had completed the work, he considered his mission accomplished. A rest of another day or two, maybe a leisurely walk on the shadow side of Mercury, and then he would set course for home.

## Chapter 6

*June 24, 2113*

Nearly eight months after launching from Amundsen City, the *Elizabeth Ashlie* touched down in the place from which it had begun its journey to the first planet. The Starman had already made a full report and sent it to Tom Starlight. His conclusion was that mining on Mercury would be extremely difficult and hazardous, but could be well worth the effort. Tom himself was present when the *Elizabeth Ashlie* landed, and stepped out to be the first to greet the first Starman.

"Well done! Well done!" said Tom, taking his friend's hand in both of his, and then embracing him and pounding him on the back. Then he stepped back and beamed at him. "A most successful journey in more ways than one!" he exclaimed.

"You're buying me a juicy steak for dinner," responded Starman Hill with a wide grin.

"Indeed I am!"

*After months of painstaking research, Keerthi Nair found no traces anywhere of any claim on Mercury by South Africa. As a result of Hill's report, Thomas Starlight decided to take the risk of setting up a mining operation on Mercury. Starlight Enterprise's mining venture was established early in 2114. Although extremely costly, the results proved to be worth the effort. There was no objection from South Africa, then or ever.*

*Further, Tom's concept of the Starmen captured his imagination and he formally established the position of Starmen as Starlight Enterprise's venturers of the 22nd century. He designed the ceremony of the creation of Starmen with an assiduous eye toward the meaning of every action and symbol.*

*Sadly, after such a promising beginning, the venture on Mercury was to become marked with tragedy. Thomas and Sandra Starlight died in a mining accident on Mercury in 2119, just seven years after the first Starman made his exploratory visit. At the age of 26, their son Richard took over the operations of Starlight Enterprise.*

## THE ORPHANS OF TITAN

*This short story was written at the request of a young member of the first reading group, Benjamin Bennett, who asked the Starman Team to describe how people of Earth first encountered the Titanians. The story was originally called SETI. It is significant because it provides the account of the injuries caused by radiation sustained by Allen Foster and his crew, which led to David Foster's fear of radiation burns. The story takes place on August 2, 2130.*

### Chapter 1

Captain Allen Foster of Starlight Enterprise looked through the porthole toward the far end of the *James Nathan*, the ship under his command. The small sphere that held the fission reactor appeared normal. The long rigid tube that connected the reactor to the crew's quarters was more than two hundred yards long, but that would not avail the fifty-three humans any margin of safety if the reactor failed.

The young black-haired, brown-eyed captain was a veteran of the spaceways whose impeccable record had brought him the command of the year-long Deep Space Expedition of 2130, charged with making a close-up visit to the planet Saturn. His crew was responsible for taking samples of the material of which the rings were made, and for visiting the four largest Saturnian moons: Rhea, Japetus, Dione, and, most importantly, Titan. The first three averaged only a thousand miles in diameter, but with a diameter of 3,550 miles, Titan was the largest moon in the entire Solar System, and was even larger than the planet Mercury.

But now Allen Foster's brow was slightly furrowed in unallayed concern.

"Are you still anxious, sir?"

Captain Foster turned and saw that his second-in-command, Caleb Johnson, had entered his office while he was gazing outside. Johnson was 23 years old and had an open, friendly face.

“Not really, Johnson... Well, maybe a little.”

“The ioneers are hopeful that they’ve calmed the reactor down, sir,” Johnson gently reminded the captain.

The captain scratched his jaw and grimaced. “I know that, of course.” He chuckled a bit, then added, “and of course I know that looking through the porthole won’t give me any more assurance than the instruments can, and all the readings look good for the moment.”

There was a rap on the doorframe and chief ioneer Cora Johnson, Caleb’s sister, stepped into the room.

“Yes, Cora?” said Captain Foster.

“Final report on the repairs, captain,” she stated crisply. “We managed to get the repair drones into the reaction chamber to reset the housing and adjust the cadmium rods. The radiation was quite fierce and two of the drones were burned beyond repair; the other three are still functional but are too hot to be returned to the hold. We’ve left them in the reactor unit protected by the shielding. I’m afraid that, although we’ve managed to control the reactor, its surroundings are so hot that we cannot send the drones into it again. They’d probably break down before they could do any effective work. It’s pretty intense in there, sir. However, all sensors are functional.”

“Very well. I see by the instruments that all readings are now back to normal. Are there any signs of weakness in the system?”

“None that we can see, sir, but we will keep a close monitor on the reactor ’round the clock.”

“Of course. Thank you, Cora.” The ioneer saluted and left the room. The captain turned back to Caleb.

“Did you come in for anything particular, Caleb?”

“Yes, sir—to inform you that the time to launch the exploratory vehicle for landing on Titan is less than two hours away, and to ask whether you wish to continue the schedule.”



“Yes, we’ll continue. We haven’t spent more than five months in space to curtail any of our ventures, especially since the flare-up in the reactor appears to be over with no harm done. Tell the shuttle crew to get the EV prepared for launch.”

“Very good, sir,” Caleb nodded, and left the captain’s office.

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The captain had about an hour before he had to begin his own preparations for the landing on Titan. He sat down to write his report:

August 2, 2130: 163 days since launch. Aboard the *James Nathan* on the Deep Space Expedition.

He wrote a brief account of the breakdown of the fission reactor, intending to flesh it out when the ioneers provided their complete report. Then he added,

We are now completing our eighth day in orbit around Saturn. The exploratory vehicle will launch for the landing on Titan in an hour and a half. In spite of the near-disaster we will continue our mission. The *James Nathan* will make one circuit of Saturn while the EV is on its Titan assignment. Our final intercept will be with Japetus. We will then spend four days investigating the planet’s rings; on the nineteenth day after our approach to Saturn, we will leave orbit to begin the homeward journey.

He shut the file, checked the readings on the reactor’s sensors once again and saw that they were normal, then peered out of the porthole. Far beyond and below, the ringed gas giant held the dumbbell-shaped spacecraft from Earth in its grip.

In spite of the sense of discomfort that still nagged at him, he smiled when he considered the beauty of the ship under his command. The *James Nathan*, named after the heroic martyred

United States President who served in the early years of the Collapse, was eighteen years old but had a flawless record of service for Starlight Enterprise. It had been constructed in space, above the Moon where the main headquarters of SE were located. Thomas Starlight himself, the founder of Starlight Enterprise, had flown it on its maiden voyage to the Asteroid Belt. Because of its design, the ship would never land on any planet or moon. Rather, it was equipped with a fine stable of shuttlecraft, exploratory vehicles, and flying labs designed to take crews to the sites of their work.

## Chapter 2

The captain had left Caleb Johnson in command of the mothership. He and Caleb alternated in supervising the crew of the EVs, and the Titan landing was Foster's turn to take control. The exploratory vehicle had launched from the *James Nathan* at precisely the optimal moment to intercept Titan. The crew would have nine hours and twenty-six minutes on the surface before beginning the flight back to the orbiting mothership.

Captain Foster placed the EV into a tight orbit around the enormous moon. The thick atmosphere of nitrogen mixed with methane gave the sphere a reddish-orange tint. The moon itself was about half ice and half rock, with a surface temperature slightly warmer than 300° below zero.

Allen spiraled the EV down out of orbit and cruised above the surface of Titan, looking for a smooth place to land.

"There are several warm spots down there, sir," reported Rebecca Jewell, one of three planetary geologists among the crew of the *James Nathan*. "They seem to be located a few yards below the surface. There are six of them in a cluster, irregularly shaped, each roughly an eighth to a quarter square mile, and connected by several strands."

"How warm, Becca?" asked Captain Foster.

“Significantly warmer than the surface. The warm spots are 102° below zero; the surface is 289° below zero, sir.”

“Could there be some kind of thermal activity on Titan, Becca?”

“No sir. There are no other similar sites on the moon and the nature of this data is not consistent with any phenomenon we’ve seen on any other heavenly body.”

“Well then, we’ll land there and see if there’s something to learn.” The planetary geologist provided the coordinates and the captain brought the EV to a stationary position over the site.

“Is there anything unusual on the surface?” asked Captain Foster.

Navigator Iris Arndt responded. “No, captain. The surface is smooth dark rock with some low mountains and ridges nearby.”

“We’re going down.” Captain Foster brought the exploratory vehicle to a soft landing.

“Take us to the closest warm spot, Becca,” said the captain as he was sealing his helmet to its collar. He left Iris in charge of the ship and took the three others with him. They stepped out of the airlock into a bleak world of dark gray rock, smooth as slate. A few featureless ridges rose up from the surface in long lines like the folds in a garment. Boulders and smaller loose stones were scattered in rings to the right. Straight ahead as the crew faced toward the glare of the distant sun, there was a sharp cliff about ten or twenty feet high. Beyond that was a mound of snow. Past the horizon, a corona the color of rust surrounded the sun.

“Becca,” said Captain Foster, “take us to the hypocenter of the warm spot.”

“Yes, sir; it’s in this direction,” she responded, lifting her left hand to point. In her right she held an instrument. She took readings and from the data it supplied directed the party’s course. Continually turning their heads and occasionally even spinning completely around, the members of the party made their way across the slab of stone, following the geologist’s lead.

“How much farther, Becca?” asked the captain. There was no answer. “Becca?”

He heard a whimpering sound, like someone trying to keep from crying.

“Rebecca?” Captain Foster looked sharply at the planetary geologist, standing motionless about twenty feet in front of the others. “Miss Jewell?”

She dropped her instrument and took a step backward, then another, and then tripped and fell down. A hideous shriek filled the helmets of the other members of the party. The others shouted at once.

“Becca!”

“What’s wrong?”

An urgent voice came from the landing vehicle. “What’s going on? What’s happened?”

Captain Foster ran to where the woman was lying down. She continued to shriek uncontrollably.

“Miss Jewell!” he said in a commanding voice. “Are you hurt?” Slowly she turned panicked eyes toward him and shook her head slowly. Her mouth gaped open and she began to gulp. Slowly she tilted her head up and looked across the slab in the direction they had been walking. Her eyes widened even more and she pointed.

Captain Allen Foster could feel his skin begin to creep even before he turned his head. When he gazed in the direction Rebecca Jewell was pointing, at first he could see nothing out of the ordinary.

When he saw what she was pointing at, his first reaction was to laugh, a maddening laugh like the insane. There were little people walking toward them—dozens of little people, barely more than half a foot high. He felt his energy drain away. Involuntarily he dropped to his knees, then fell forward and lay flat down, facing the advancing crowd. With enormous effort of will, he tore his glance away from the unbelievable sight to check his vital signs on the indicator located on the inside of his left sleeve. Except for very elevated heartbeat, respiration, and perspiration levels, everything was normal. He wasn’t having hallucinations and his brain was receiving sufficient oxygen.

To his left, ship recorder Ellis Cardigan was making a video recording. To his right, Marian Petrescu was grappling for his recording equipment and dropping most of it. Behind him, Rebecca Jewell had recovered herself.

“Captain? Are they real? Are those really people?”

He didn’t answer.

“Would somebody please tell me what’s going on out there?” came the urgent voice from the landing vehicle. “What do you mean, ‘people’?”

“It’s okay, Iris,” said the captain, scrambling up to all fours. “Marian, get your equipment up and send your images to the EV. Iris, make sure you get this!”

“Yes sir,” both of them said in unison. When the image appeared inside the exploratory vehicle, Iris gasped.

“They can’t be real!” she cried.

“Just keep shooting!” commanded Captain Foster. At that moment, the first of the tiny people reached the captain of the *James Nathan*. The captain slowly lowered his face and stared at the tiny shape. It was almost perfectly humanoid in shape.

“Amazing!” breathed the captain. By this time, the small figure’s companions had surged onward. The four humans were surrounded by three or four dozen of the little people, who were staring at their visitors with almost as much amazement as the crew members of the *James Nathan* were experiencing.

“Captain,” said Rebecca. “They have no space suits, no protection! How can they survive out here?”

“I’m sure I don’t know, Becca. Don’t touch them, anybody! I’ll let them touch me first.” Very slowly Captain Foster extended a hand with his fingers spread and palm upward, and held it a few inches in front of the first little figure that had approached him. The diminutive figure reached out a hand and wrapped his fingers around the end of the Earthman’s ring finger. Marian Petrescu captured the moment with his camera.

“Let’s find out where they came from,” said the captain as he carefully came to his feet. Very slowly he lifted his foot an inch from the surface and moved it forward. The little people

scattered. Incrementally the captain moved in the direction from which the small people had come, followed by his crew. The little people ran alongside of them.

“Man, has this moon been misnamed!” said Ellis.

“Hmmm?” said Rebecca.

“It should have been named Lilliput! Titan! How ironic!” He laughed at his own joke.

“There’s an opening up ahead in the cliff, Becca,” informed the captain. “Check it out, please.”

The geologist moved ahead and found what appeared to be a vent or small cave in the shadowed side of the wall of rock. The aperture was three or four feet high. Becca peered into it, and then thrust her instruments forward.

“It’s a little warmer at this point, sir. This must be the entrance to their dwelling place. My first hypothesis is that the warm spots we were investigating are small cities below ground.”

“Can we get an x-ray or sonogram of what’s below, sir?” asked Marian.

“I don’t want to risk it until we know what effect it would have on the inhabitants,” said Captain Foster. “Our time on Titan is short enough this time but obviously this discovery will lead to a major expedition! This is the greatest discovery in history! But now we’ve only got time and resources for the most cursory measurements!”

“Captain!” Iris’s voice in the EV sounded tense and urgent. “I’ve just had word from Caleb! The fission reactor is leaking again! The level is only slightly above normal, sir, but the pioneers are worried!”

“How much longer until they pick us up?”

“A little more than eight hours, sir!”

“Tell them to continue to monitor the radiation carefully. We’ll continue to gather as much data here as we can, and lift off from Titan at the last second. If the radiation level continues to increase and they can’t control it, we’ll terminate the mission immediately and head home!”

“Yes sir!”

*The radiation level aboard the James Nathan continued to rise, slowly but uncontrollably. As was determined later, the repair of the shields after the first crisis had been inexact. Radiation continued to leak and gradually burn the protective equipment and eventually the connecting linkage to the crew's quarters.*

*Captain Allen Foster terminated the Deep Space Exploration hours after returning to the mother ship, at the earliest moment that the ship was able to leave orbit and set a return course to Earth.*

*During the return journey, the increasing radiation levels caused intense sickness to every crewmember and eventually induced severe tissue damage to everyone aboard. Thanks to the heroic encouragement and leadership of Captain Allen Foster, morale on the return voyage was maintained at a high level and there were no fatalities.*

*Captain Foster flew the James Nathan even as he approached the point of death. Rescue personnel intercepted the ship ten weeks' journey away from the Moon, removed the crew, and set the radioactive ship on a collision course with the sun.*

*Within a year of the first contact, a mission to Titan was organized and a permanent base established. The fifty-three members of the crew became renowned for having made contact with the first extraterrestrial intelligence in history. Tragically, all members of the crew were disabled with radiation damage and declared unable to fly into deep space again.*

*In spite of his injuries and disfigurement, Captain Allen Foster married Elizabeth Curry the year after the Deep Space mission. They became the parents of future Starman David Foster in 2134 and David's sister Kathy nearly ten years later.*

## A MATTER OF TIME

*This short story was written to fix a major oversight in the Starman saga. One day the Starman Team suddenly realized that although we had written several books in the Starman series, we had never mentioned any children that Richard Starlight may have had. The existence of his children was to become an important part of the saga. How, then, could we explain that there were such children when they had not yet appeared or been mentioned in the saga? Jon Cooper's idea for a plausible solution bore fruit in the following short story. The Starlight children are mentioned several times in the Starman books that are set after the key date of May 10, 2154. This story occurs on October 12, 2150.*

### Chapter 1

“Eleven straight successful trial runs is a good record,” said Richard Starlight, the head of Starlight Enterprise, “but are you sure it’s good enough yet to risk sending a human being through hyperspace?” The 56-year-old head of Starlight Enterprise looked dubiously at Mariano “Manny” Mendoza, the man he’d put in charge of the hyperspace project. Mendoza sat across from him in the lounge of Richard’s office located in the 121<sup>st</sup> story of Starlight Tower. The Tower was the most prominent feature of Starlight Enterprise, situated forty miles from Amundsen City in Shackleton Crater, the major population center at the south pole of the Moon.

Manny leaned forward and lifted his right hand in a gesture of supplication. “Under the circumstances, I think it is more than sufficient,” he said. “Before the straight run of successes began, the overall success rate was a dismal 35%. But after we redesigned the energy distributor, the wormhole drive has worked flawlessly with large and small objects and even with



test animals. Besides, we have a Starman eager to make the first run—a trial journey to Elijah Base on Titan, and then back to the outbase.”

Richard exhaled through his nostrils, pressed his lips together, and shook his head. “I know,” he said. “Eleanor Decker. A brave Starman who hasn’t a failure or blemish of any kind on her record.” He looked up at Mendoza. “Tell me again how you redesigned the energy distributor.”

Mendoza grinned, revealing straight, white teeth under a dark mustache. He was proud of the work his team had done, and anticipated a triumphal conclusion to more than eight years of work.

“As you know, the key force behind the wormhole drive is the micro black hole in the vacuum tank.”

Richard nodded.

“At, or near, the event horizon, the known laws of physics break down,” continued Mendoza. “Quantifiable mass and energy move beyond our ability to measure, and time itself slows. The micro black hole is contained in a vacuum bottle and held in place by a three-dimensional magnetic framework. The energy distributor momentarily expands the time distortion to the dimensions of the *Vintager*. The expansion creates the wormhole threshold. The ship is swept into the wormhole and the coordinates set in the controls tell it where to terminate.”

“That’s the basic principle, I know,” acknowledged Richard, “but what did your team do to make the energy distributor so effective in the last eleven test runs?”

Mendoza smiled widely again, and then laid out the details of the redesign of the ultra secret apparatus.

“Well,” began Richard when Mendoza had finished, “it’s beyond my capacity to understand, and I know that there is no one else more qualified than you to work on this project.”

Mendoza beamed with the praise.

Richard looked up and captured the man’s eyes with his own. “So I will trust you for the test, and allow Eleanor Decker to trust you with her life.”

## Chapter 2

Richard and Jan's oldest son John was a powerfully built, large-boned man of 24 years who had spent the last five years on Earth training in advanced micro-electronics. In the prime of his health, he glowed with strength. His twin sister Veronica had studied at the same institution as her brother, specializing in primal language and communications. Both had recently completed their studies and returned to their home in Amundsen City.

"Dad?" asked John over the family dinner table.

"Yes, John?"

"We'd like to take a look at the *Vintager* before its maiden voyage. May Veronica and I come with you when you make the tour of inspection tomorrow?"

Almost as large as her brother, Veronica appeared to hold her breath as she waited for the answer. Richard glanced across the table to his wife Jan, who smiled.

"Actually, John," said his mother, "I'm going too, and we'd planned on taking all of you. It's an historic ship and we want all of you to see it."

"Us too?" asked Caedmon, sitting up straight with sudden eagerness. The 19-year-old young man was referring to himself and his 17-year-old sister Michaela. Just as the twins John and Veronica were nearly inseparable, so were the younger two. The previous year, Caedmon had finished preliminary studies in business administration and ethics and was now in his first year of field training. He was preparing to inherit the leadership of Starlight Enterprise from his father.

"All of us," repeated Richard. "The six Starlights are not together very often any more, and your mother and I want to share this extraordinary occasion with you all. Dr. Mendoza assures me that the *Vintager* is ready for its maiden journey with a human being. October 15, 2150 will become a famous date in history."

“Four days from now,” said Michaela dreamily. “And we’ll get to see it!”

Richard pushed his plate away and said, “Time for dessert! Let’s have that apple pie you and Caedmon baked earlier today, Michaela!” The two younger ones hastened into the kitchen and reappeared a moment later wheeling a cart bearing six plates, cups, and saucers, a warm and fragrant pie, and a pot of steaming Columbian coffee.

### Chapter 3

The *Lux Mundi*, Richard Starlight’s personal spacecraft, cruised a mile above the lunar surface. Below, the regolith—a loose, incoherent mantle of dust and rock fragments from ballistic impacts and volcanic activity that overlays the solid rock from which it was formed—showed evidence of the half-tracks that made sporadic forays into the environs of the Starlight Enterprise outbase. Below the striking, gold-flecked Starlight spacecraft, moon shadows sharp as knives accentuated the topography in the harsh sunlight of an airless world.

“Coming up on Schrodinger Impact Basin, sir,” announced Michaela crisply. With her long, black hair drawn back and held in place by a blue ribbon, the youngest of the Starlight children was serving as navigator. In her last year at Starlight Academy, she hoped to achieve the rank of Starman upon graduation the following spring—of the four children, the only one with that goal.

“Aye aye, navigator,” responded Richard, knowing full well that the Basin was less than ten miles away. Thomas Outbase, named for Richard’s late father and the founder of Starlight Enterprise, was located in a wide declivity in the wall of the immense impact basin. It was the site of imaginative research in experimental space travel with a specialty in hyperspace. Its distance from the center of lunar civilization was both for

security purposes as well as safety for the general populace. The forces with which the staff of Thomas Outbase worked were formidable, unpredictable, and very hard to control.

A few minutes later Richard brought the *Lux Mundi* to a soft landing on the fine shale gravel that served as a spaceport adjacent to the outbase. The gray and bright white terrain spread out around the Starlight family as the six of them strolled across the field to the main airlock.

“Hello, Yarrow!” Richard shook hands with Yarrow Paboom, the operations manager at Thomas Outbase, who was waiting to welcome the visitors. “Is everything ready?”

“Yes sir,” replied the man. “Dr. Mendoza will meet us in Sheol. He is eager to show you the *Vintager*! I’ll take you there; please follow me.” Yarrow Paboom had been born in Calcutta, India, but had spent nearly all his sixty-plus years on the Moon. He was a veteran of Starlight Enterprise with more than forty years of faithful service.

Thomas Outbase was a configuration of tall, interconnected buildings that on three sides surrounded a central pit, commonly called “Sheol” by the engineers. The fourth side was a nearly sheer, charcoal gray cliff. In the pit a squat, complex tower had been constructed. At the top of the tower was a flawlessly spherical ship—the *Vintager*. The spherical design was ideal for the wormhole drive that Manny Mendoza was eager to prove that he had perfected.

As the company passed along the main corridor, Michaela was hailed by another young woman.

“Michaela! Hi, it’s me, Sarah!”

“Sarah! Hi! What are you doing here?”

“Dr. Dukas sent me here for a few days so I can complete my project on advanced navigation. It’s fascinating, working with Dr. Mendoza! He’s an absolute genius!”

“Mom, Dad, this is Sarah Pletcher,” Michaela said, introducing her friend to her parents. “Sarah is a third-year student at the Academy. She wants to be a space captain.”

“Pleased to meet you, Mr. and Mrs. Starlight,” said Sarah. A pleasant young woman with short blond hair and a wide smile, she easily made a good impression.

“Can you join us on a tour of the *Vintager*, Sarah?” asked Jan Starlight.

“Thank you, Mrs. Starlight, I’d love to go with you, but I’ve seen the ship up close several times in the past two days, and I’m on my way to the lower level of the tower right now to take some measurements. It’s a restricted area and I can only get in at certain times, and I need to make the measurements in”—she gave her compad a quick glance—”oh my, in less than seven minutes! I’m supposed to be there at noon, when the energy level is being posted from above. I have to run, but I hope to see you again before you go!” The young woman whirled and sped for a doorway, shouting over her shoulder, “See you later, Michaela!”

“She’s a real delight to have here, Mr. Starlight,” smiled Yarrow Paboom. “I suspect you’ll be hearing good things about her in years to come!”

## Chapter 4

“Just follow orders, Toby!” hissed the small, wiry figure, hunched over a large individual who knelt on the black stone floor at the very base of the tower.

“I don’t like it, Link,” muttered the bulky man. His fingers were entwined in a gray box, filled with several plastic plates on which were scored hundreds of microcircuits. “This thing could take the whole base out, and us with it! And who knows where we’d end up? This isn’t like setting a clock!”

“Captain Putnam gave the command,” asserted the man addressed as Link. “We have to stop this experiment! It would spoil six years of preparation if Starlight suddenly got the capacity to move ships instantly across space.”

“Yeah, well Putnam’s safe in the Asteroid Belt,” said a third character uneasily, “and we’re the ones tinkering with a black hole. I don’t feel like getting strung out like spaghetti—stretched *forever*, if I understand what happens at an event horizon!”

“Cork your mouth, Sledge!” ordered Link fiercely, turning on his other companion. “You’re just a wrench-turner like us! You don’t know anything about black holes! We’re just messing up the timer and then we’re getting out of here! Probably no one will get hurt! The ship will just”—here Link made an exaggerated gesture with both hands spread out as if in wonderment—“disappear on its one-way journey to who-knows-where!”

“Okay, okay, Link,” said Toby, “it’s done! Now let’s get out of here. If we’re caught down in this area, Paboom sure won’t give us the leave we asked for!”

“Hah!” barked Sledge. “That’s for sure! We’ll be put in a cell! No question!”

“You sure you got it right?” sneered Link.

“Easy,” said Toby, standing up straight and dusting off his hands. “I set it for midnight. Everybody will be asleep except the two guards and they won’t be aboard the ship. And we’ll be back in Amundsen City.”

“Let’s go,” said Link.

Having done their damage, the three men moved quickly but silently down the shadowy corridor.

Approaching from the opposite direction, Sarah Pletcher turned the corner into the long passage. When she saw the three men creeping furtively toward her, she froze. Adrenaline surged into her system.

“Hsst!” Link’s voice sounded like a leak in an airlock, and he held out his arms to stop his companions from moving forward. From a distance of ten feet, the two parties looked at one another for a second or two.

Hoping that her apprehension would not show in her voice, Sarah spoke up. “What are you doing here? This is a restricted area!”

Without taking his eyes off the woman, Link leaned his head to one side and muttered to Toby, "Put the baggage in the closet! We'll be gone before she can get out!"

Toby strode ahead confidently, grabbed Sarah by both shoulders, and pulled her forward a few feet until they were opposite a closet door. Still holding her firmly with his meaty right hand he reached over with his left and pulled the door open, then began to push her into it.

Suddenly a loud, throaty groan burst from his vocal chords, like a large animal in pain. Toby collapsed into himself, both hands grabbing his groin. With her eyes flashing, Sarah reached up with both hands and pulled his head down and to her right. Her left leg bent upward and with her knee she walloped him with enormous force on the right side of his head. The big man went down in a heap and lay on the floor whimpering.

The faces of Link and Sledge showed sudden surprise and then outraged anger. They both leaped at Sarah, clutching hands outstretched.

As they rushed toward her, Sarah jumped at the one on her right, the bigger of the two assailants. With a piercing guttural yell, she lifted her left leg into the air almost as if she were stepping onto an invisible stair and let fly a crushing kick with her right leg. The ball of her foot slammed into Sledge's solar plexus. The air whooshed out of his lungs loudly, his mouth opened like a fish out of water, and he went down.

Link stopped his rush and glared at the woman with alert wariness, his nostrils flaring with hatred.

"You just made a big mistake, honey." His voice oozed like poison. Slowly, with a lopsided evil grin, he drew his pistol. Before it had cleared the holster, Sarah dropped instantly to the floor and, supporting herself with her left leg, extended her right leg and swung it in a fast arc. She caught the saboteur just at his right ankle. The man's feet flew out from under him and he slammed down hard on the metal floor. The pistol went flying.

With a cry, the man rolled away fast from the Starlight student and leaped to his feet. His eyes glared with red fury. He

snarled and charged her, bellowing and aiming a hard punch at her face with his right hand balled up in a tight fist.

Just as he released the blow, Sarah swept her right arm across in front of her head and deflected his attack, then slammed her own fist backwards into Link's face. He howled and closed his eyes, dropped his head, and covered his face with his hands.

Sarah planted her right foot and whirled rapidly counter-clockwise, leaning away from her attacker. At the height of her spin, she lifted her left leg high and dealt Link a hard blow on the left side of his head. For a quarter turn, his body spun like a propeller as he dropped to the floor. By the time he came to rest, he was out cold.

## Chapter 5

"It's unbelievable, Dad!" said John. His voice showed that he was more than impressed with his first view of the *Vintager*. The solid ebony sphere at the top of the tower gleamed in the midday sunlight.

"Can we go inside?" asked Veronica.

"If Dr. Mendoza is agreeable, it's okay with me," said Richard.

"Let's go!" shouted Caedmon and sped toward the nearest elevator.

"Wait for us!" laughed Jan.

"It's okay," smiled Richard. "Let 'em go! There are two elevators here and we'll take the second one when we're ready."

"Thanks, Dad!" shouted Caedmon. Followed by his brother and sisters he stepped excitedly into the open elevator. The door closed on the four smiling, energized Starlight children.

Yarrow Paboom stood patiently beside Richard and Jan. A minute later they saw the foursome stride across a gantry two floors below and approach an entrance point on the glistening



tower. A door opened and Manny Mendoza stepped out. At his side was a slender young woman wearing the honored red uniform of a Starman—obviously Eleanor Decker, the test pilot for the *Vintager*. She and Manny Mendoza greeted the four Starlight children with unmistakable pleasure.

Apparently answering a question, John turned and pointed to the balcony where Richard and Jan were standing with Yarrow Paboom. Mendoza looked up and waved.

Richard and Jan both waved back. Their children looked up quickly and joined in the exchange, then followed Mendoza and Decker into the tower.

“Shall we follow them?” asked Paboom.

“Yes, I’m ready,” said Jan.

With an abruptness that staggered the mind, the sphere suddenly disappeared. One moment it was at the top of the tower, and in the blink of an eye it was gone.

It took a moment to register. The three observers blinked. Richard shut his eyes and turned his head aside, then stared again. The far side of the tower gaped below, and the huge pod at its top was empty.

## Chapter 6

Breathing hard with both excitement and exertion, Sarah looked for the closest alarm button and saw one just across the corridor from where she was standing. She ran to it, but before she touched it an alarm began to sound throughout the facility. Its strident, urgent wail was almost loud enough to pierce eardrums.

Someone must have seen me on a security camera, she thought. She ran toward the elevator and called the car down to her floor. When she returned to the main level of the outbase, the door opened on a chaotic scene. Frantic, panic-stricken people were dashing across the hall toward the central section of the

facility.

At the main window, a dozen people were staring out at the pit, their open hands pressed against the plate glass. Sarah's uneasiness grew upon her as she stepped out into the rush. Something was going on, something worse than her fight in the basement.

"What is it?" she asked. "What's wrong?" No one paid any attention to her. She followed the crowd to the window.

At first she didn't see anything out of the ordinary; then she noticed that the *Vintager* was gone. Her jaw dropped and her eyes bulged out like the others.

"Give me your attention immediately!" The commanding, forceful voice compelled obedience. The alarmed jabber dropped into taut silence. With the others, Sarah turned and saw Dwight Lawrence, the head of security at Thomas Outbase. His face wore an expression of tense alertness, and he carried his laser rifle at the ready. Bulging muscles filled his uniform to the bursting point.

"Did anyone see anything out of the ordinary before the ship vanished?" he belted.

Sarah swallowed fearfully, and then raised her hand. All at once, the eyes of everyone in the room turned to her.

"Explain!" commanded Lawrence. Sarah stammered her way through her account of the confrontation in the basement. Even before she'd finished, Lawrence had detailed four armed men to the scene.

The group waited nervously until Lawrence received a report.

"Three men, Mr. Lawrence," came the voice through the communicator. "Toby Deefer, Sledge Trandon, and Link Crane. Looks as if they were put down pretty effectively." Dwight Lawrence's granite face turned toward Sarah and showed a brief smile.

"Bring 'em up for questioning!" ordered the head of security.

## Chapter 7

Just over an hour later, there was knock on the door of the apartment where Richard and Jan Starlight had established themselves. At Jan's invitation, Sarah Pletcher had joined them in their agonizing vigil. Yarrow Paboom came into the apartment at Richard's invitation. The Indian's face was gray, and he looked as if he had aged several years since the morning. The Starlights looked no better.

Paboom sat down on a sofa and faced the three others.

"Well, it's good news," he began, "or at least better than we'd feared. All indications are that the *Vintager* jumped through time, not space. Its destination settings had not been adjusted to Elijah Base or anywhere else. Once we'd learned that, we couldn't figure out why there was any activity at all when the wormhole trigger was initiated. Surveillance cameras, however, show that the time setting had been activated. We found the technician who had been testing it and he verified our findings.

"We expect that the *Vintager* will reappear on this very spot in 1,306 days. There are ten people unaccounted for and presumed to be aboard. Dr. Mendoza, Starman Decker, and your four children are among them. If all goes as we hypothesize, they will reappear at noon on May 10, 2154, perhaps without even knowing that they have traveled through a wormhole."

Jan Starlight breathed a sigh of relief and then burst into tears. Sarah laid a hand on Jan's arm.

"Who did this?" asked Richard, his voice hard as stone. His face was rigid, and his gray eyes glinted.

"Dwight Lawrence, head of security, has been questioning the three men whom Sarah found in the restricted area. They admit to resetting the timing device so that the *Vintager* would launch prematurely. Apparently they thought that they had set it for midnight but had actually set it for noon. They're none too smart—low echelon mechanics who've knocked around a few spaceports, lately from Amundsen City. They cleared the security check—in fact, they still do, even after the detailed inspection

that Lawrence just ran on them.”

“Why?” cried Jan, raising her face to Paboom. “Why would they do this?”

“I’m sorry, Mrs. Starlight, but we haven’t been able to determine that yet. They’re still being questioned.”

*In fact, more than a year would pass before the three saboteurs would reveal their connection with a criminal element secretly based in the Asteroid Belt. Troy Putnam was not so fearsome, but his second-in-command, Lurton Zimbardo, was a merciless man without a conscience. Fear of him was enough to silence the tongues of the three captives until the assault on Mars had been repulsed and their connection with the subterfuge engineered by Troy Putnam was taken as self-evident.*

## BOOK 3: JOURNEY TO THE FARTHEST PLANET

*Escape shall be cut off from the wicked. (Job 11:20b)*

### Chapter 1: A World Made of Shadows

FOR ALMOST HALF A YEAR, the spacecraft *Tartarus* had coursed away from the center of the Solar System, farther and farther into the emptiness of space. Erstwhile pirate leader Lurton Zimbardo had threatened Earth by directing a large asteroid into a collision course with the third planet. The cooperative efforts of numerous people had turned the asteroid aside. When he had realized that his plan had been frustrated and that he himself was about to be captured, Zimbardo had fled in his personal spacecraft, heading toward the far reaches of the Solar System with five loyal supporters—all that remained of a sizable group of pirates who had sought to terrorize human civilization.

Weeks earlier the pirates' solitary spacecraft had passed the orbit of Pluto. The ship had been decelerating since about the orbit of Neptune. Now it was surrounded by stars in every direction, the wheeling fires of deep space.

During the journey, the *Tartarus*' six passengers rarely spoke to one another. There was no need to do so. When they were not sleeping, mostly they just sat, passing time. Their destination was known, and its coordinates had been programmed into the ship's computer. The *Tartarus* cruised on an automatic guidance system. Mr. Gebbeth, the crew's pilot, checked the settings once every few days, but they never needed adjustment.

Meals were plain. Each man prepared his own meals, ate when he was hungry, and cleaned up after himself. No one thought to establish regular mealtimes for the crew.

It had been six days since anyone had spoken. Mr. Gebbeth's voice was pleasant enough, but came almost as something

extraordinary in the silent cabin.

"The planet is dead ahead, Mr. Zimbardo. We will come into orbit in a few minutes."

The small, wiry, dark man whom Gebbeth had addressed rose from his seat and came into the cabin, standing behind the pilot's chair. Visibly, energy began to course through his frame after weeks of inaction. His eyes lit up and a narrow smile, barely perceptible, drew over his features.

"Ah!" was all he said.

Across the ship's great window before him was a world that looked as if it had been made of shadows. In a few places the glint of ancient starlight was reflected in sullen red hues, as if the planet were suffused by the glow of a monstrous furnace. Most of the surface, however, appeared folded in upon itself—absorbing everything and reflecting little.

"Take control of the ship and enter an equatorial orbit, Mr. Gebbeth!" commanded Lurton Zimbardo, with expectant energy in his voice. "An equatorial orbit!" He pronounced the words carefully, almost exultantly.

"Yes sir!"

The other four crewmembers—the men called Slant, Poppy, Stagnum, and Withers—quietly gathered behind Mr. Zimbardo. They observed the planet below them but made no remarks and showed no interest of any kind.

"Orbit achieved, Mr. Zimbardo," announced the pilot after a few minutes.

The wiry man reached over the pilot's shoulder and tapped the navigational keyboard with one hand, entering coordinates that he kept only in his memory.

"Take us down, Mr. Gebbeth," he said, leaning back. Without a word, the pilot directed the *Tartarus* to the coordinates entered in the ship's computer, allowing the ship's automatic pilot to make the fine adjustments.

The *Tartarus* descended, sweeping in over black, razorback peaks. Soon the men could no longer see the horizon. Around them were uplifted formations of stone and black crystal towers,

in many places dusted with snow. The ship cruised along a wandering canyon, skimming the surface of the dark world.

"There it is!" announced Lurton Zimbardo as the ship came over a slight rise in the terrain. On the other side of the crest a large crater spread before them. It looked like a repository of slag, where waste from a mine had been chugged haphazardly. Ahead and slightly to the right of center a large opening appeared in the crater wall, a block of darkness surrounded by the caliginous peaks and folds of the region.

"Touch down by the entrance, Mr. Gebbeth! Our waiting is almost over! What is in that cave will destroy the Starmen!" Mr. Zimbardo was full of zeal once again.

Mr. Gebbeth brought the *Tartarus* to a soft landing on the smooth stone apron before the cave's opening.

"Get out," ordered Zimbardo. All six men donned their spacesuits, descended the ladder, and set foot on the dark planet. When all had debarked, Zimbardo turned and led the way toward the cave. He strode boldly before his comrades, who followed with neither hesitation nor eagerness.

Once in the deeper darkness of the cave, the men could see that it was an immense overhang. The back wall was almost a quarter of a mile from the entrance. Several spacecraft of ponderous design were quartered inside the shadows in what was clearly a makeshift spaceport.

Confidently, Zimbardo walked past the ships toward the back wall where he expected to find the entrance to the quarters beyond. He was not disappointed. As the six men from Earth approached the place where the rocky ceiling arced down to the floor, they could see several doorways.

Zimbardo hesitated only a second before choosing a door, and led his crew toward the one he had selected. When he was still fifty feet away, it opened. Five creatures emerged and ranged themselves in a line, blocking the entrance.

For the first time in many years, Mr. Gebbeth felt fear. He and the other crewmen came to a sudden stop. Behind the viewports of their helmets, their eyes widened in terror.

Even Lurton Zimbardo missed a step.

## Chapter 2: January 1, 2152

STARMAN David Foster set his coffee cup down and turned his attention to the waffle his mother had made for breakfast. It was New Year's Day and the Fosters were sitting at the breakfast table. Belgian waffles were everyone's favorite.

They were up later than usual. The four of them—David and his eight-year-old sister Kathy and their parents—had celebrated World Peace Day<sup>2</sup> the day before. Like nearly everyone else, they had stayed up on New Year's Eve to greet the new year at midnight.

The Fosters' home was located in one of the enormous residential areas of Amundsen City. The City had been built inside Shackleton Crater, a smooth depression about eighteen miles in diameter precisely at the south pole of the Moon. It had been chosen as the best site for human settlement, since it had abundant supplies of water ice.

Next to the crater was the "peak of eternal light", a spot where there was continual sunlight between one of three points within about nine miles of each other. Bathed in constant sunlight, solar energy was available all the time, an ideal condition for providing energy for the City and its industries.

Nearly all the residences had been built on the outer parts of the metropolis—the largest single municipality in civilization. An enormous interconnected system of biospheres was home to a population of nearly eight million people. Although a significant percentage of the population consisted of retired people, the Moon supported many industries; there were dozens of companies and activities that provided work for the moon-dwellers. Both privately-owned Starlight Enterprise and government-sponsored Space Command employed many

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<sup>2</sup> Human civilization had adopted the World Calendar on January 1, 2101.



thousands of people.

“Sherry Barneveld’s going to be on television in about half an hour,” said Beth Foster, David’s mother. “I always enjoy seeing how she’s grown up.” Beth Foster was a slender woman with the tapered fingers of an artist. Her hair, as red as her son’s, was worn loosely this morning, and strayed down her back.

Allen Foster, David’s father, grunted his assent as he sliced through his waffles. He was a solidly-built, dark-haired man who relished his hours in the conditioning gymnasium—required activity for all human beings who lived on the Moon. “She’s only four days older than I am. With only a little bit of luck, *I* could have been the one on television every new year’s day.”

“You say that every year, Allen. *Somebody* had to be the first child born in the twenty-second century. You came close, but it was just Sherry Barneveld, that’s all.”

David Foster had enjoyed a long break from his duties as a Starman for Starlight Enterprise. Nearly four months earlier he and his teammates, Joe Taylor and Mark Seaton, had helped to thwart Lurton Zimbardo’s plan to direct an enormous asteroid into a collision course with Earth. There had been no sign of Zimbardo for nearly four months, and the Starmen had taken the time for a long rest.

“David,” said Kathy, “would you help me with my math today?” David turned toward the little girl with the shiny maroon hair and dark eyes, and smiled.

“You want to study math today? It’s a holiday!”

“Your sister wants to spend time with you, I’m sure, David,” observed his mother. “I think the math is just an excuse. It’s been a long time since you were able to be home with us for so many weeks—not since you started your studies at Starlight Academy.”

David smiled again. “How about if I take you to the forest later, little one?”

Kathy’s smile widened and her eyes sparkled. She nodded and turned to her waffle and began to cut it quickly.

David rinsed his dishes and placed them into the washer, refilled his coffee mug, and strolled to the bay window. Behind

him, his parents were conversing with one another quietly at the table, and Kathy was hurrying through her waffle. The Starman eased himself down into one of the viewing chairs that faced the moonscape. The chair automatically adjusted itself to the contours of David's body.

His gray eyes sighted along the distance. He held the mug in both hands but did not drink from it. His thoughts followed his line of sight over the dusky plateau and beyond the horizon into the blackness of space. The sun, far off to the left of the view, cast long, utterly black shadows wherever a boulder or slight elevation relieved the level desolation. Lurton Zimbardo had not entered his mind for several days, but his image was there now.

The Starmen had seen Zimbardo only once—when he had captured them in Eagle City on Mars over six months before. They had been his prisoners on the asteroid—the one that was now in orbit around the sun and would rendezvous with Earth in a little more than five months—but at that time had not seen him or heard his voice.

Gene Newman, however, had given full testimony to Zimbardo's brilliance and instability. The former senior technician had turned against the pirate leader and provided invaluable help in turning the asteroid out of its collision course with Earth. Newman was now serving a term of three years in prison. Richard Starlight had promised him a personal interview after his release regarding a position with Starlight Enterprise.

The image of Zimbardo was seriously frightening. David's brow slowly began to furrow as his introspection intensified.

"David, are you going to take me to the forest now?" The little girl had finished her waffle and approached David so silently that he had not been aware of her. He turned with a broad smile and dismissed Lurton Zimbardo from his mind.

"Yes, Kathy, right now." He raised the mug to his lips and sipped the coffee. "Ooh!" He made a face, for the coffee had become lukewarm.

"Let's go, little one." He rose, walked to the sink and poured the coffee out. "We're going out to the forest," he announced to

their parents.

“You’re going to miss Sherry Barneveld,” said his mother.

“I’m doing something more important,” returned David. He took Kathy’s hand. Excitement showed in her face as they went out the door.

~

There were few vehicles in Amundsen City, for public transportation moved people quickly and efficiently. In the stark world of the Moon, space was used carefully in the civilized centers. Even so, people from Earth missed gardens and growing things. Air ferns were generously located in public places and in many homes. Hydroponic gardens, some of them acres in size, provided food, oxygen, and visual beauty.

David and Kathy walked through the streets of the residential area, bypassing several accesses to the transportation system. They greeted neighbors and paused to examine the gardens and decorative sculpture that were in abundance in this portion of the city. New Year’s Day was a holiday, and they had plenty of time.

After a few minutes, the brother and sister came to the shopping area closest to their home. The square was covered with close-fitting gray stones of a variety of shades, from light ash to nearly charcoal. People strolled through the avenues; others sat on benches. The surroundings had the feel of a small village. Far above was a great crystal dome through which starlight came clearly. Artificial lighting provided a cheerful ambiance.

“Let’s take the subway now, Kathy,” suggested David, heading toward the nearest access portal. The two of them descended the steps and entered the first available railcar they found. With barely a sound or a sensation of movement, they took off.

A quarter of an hour later they debarked from the car and ascended another flight of stairs. At the top of the stairs, they saw a large crystal archway that led away into the distance. Over it

was an enormous sign with block letters: ARMSTRONG FOREST, GATE 6. The archway was filled with parallel slideways, moving sidewalks that carried people down a long arched corridor. There were crowds at this point, but the people were moving easily. In moments, David and his sister were standing on a slideway, moving with hundreds of other people. In a short time, they had passed through the corridor and into the open forest.

When Amundsen City had first been planned and settled, the architects of the development had set aside fifty square miles in the center of the city. They had fertilized the Moon's gray dust, imported inconceivable amounts of nutrients and additives, and prepared soil that would sustain a forest. It had been named for Neil Armstrong, the first man who had walked on the Moon. What David and Kathy were entering now was the work of more than a century. Artfully designed, nearly three-quarters of Armstrong Forest looked almost like an old-growth forest of Earth.

The forest contained tens of thousands of trees of great girth, with gnarled trunks and long, twisting, heavy branches. In some places, the canopy of leaves extended unbroken for miles. There were meadows, streams and lakes, and even waterfalls; light orchards and dense woods were scattered about in almost a random pattern.

In the remaining parts of the forest, vast areas of flower gardens laced with paths had been planted. There were decks of tulips, tea roses, rhododendrons, azaleas, and hundreds of other varieties of flowers. Thousands of teak or bronze benches were situated along the pathways, under massive trees, and on the lawns adjacent to waterways. Many pools were graced with water lilies overhung with the hoary giant trees that were the forest's first plantings. Several thousand Japanese cherry trees occupied one of the most popular areas of the forest.

Within a few decades of its inception, Armstrong Forest had become one of the civilized world's greatest horticultural adventures. One of the wonders of the worlds, it was carefully maintained in the most complex biosphere in civilization. The

biosphere could even produce artificial wind and rain. The forest provided the great majority of Amundsen City's oxygen, but even more important to most of the citizens of the City, it was a place of unutterable beauty, a pristine paradise.

Armstrong Forest was enclosed in the largest geodesic dome ever constructed. Since Amundsen City was located at the Moon's south pole, the rays of the sun were oblique to the surface; the sun neither rose nor set, but stayed always on the horizon, making a complete circuit through the lunar day. A complex system of mirrors and polarization capabilities captured the light of the sun and provided the chief source of illumination to the forest. The system was able to provide the equivalent of days and nights, as well as the seasons of the Earth year.

At its highest point, the clear roof of the dome was nearly four miles above the ground. One hundred thousand people could be inside its boundaries, and still no one would feel crowded. On New Year's Day, 2152, perhaps that many were enjoying the forest.

"What would you like to see, Kathy?" asked David as they stepped off the slideway.

"I want to take a boat down the stream." Kathy pointed to a canopy with red bunting that advertised boats for rent. David took his sister to the stand and picked out a small vessel with clean lines, comfortable seats, and a quiet electric motor. He paid the deposit and they got into the boat. David cast off.

The girl snuggled up to her red-haired brother as he piloted the small craft through the waterways. "Go that way," she said, pointing to a narrow opening in the lush growth on the right side of the stream. A placid channel led off the main path, and David steered the prow of their boat through the opening into the waters beyond. Large trees grew on both sides of the narrow stream. Ivy covered the ground and trailed into the water. The trees' branches met overhead, making a filigree of green and gray netting. The artificial lighting, matching the time of day, gave the impression of late morning.

"I'm glad you thought of the forest, David. This is beautiful!"

“Better than studying math?”

“Oh, yes—much better than studying math!”

“I think so too, Kathy. I’m glad you wanted to spend time with me.”

“How long are you going to be home, David?”

“I don’t know. I’ve already been home a long time. I think that maybe I’ll have to go soon.”

“Why? Has something happened?”

“No, nothing’s happened yet, but the people at Space Command and SE have been working hard on figuring out where Lurton Zimbardo went. They’ll find out, and then I’ll have to go after him.”

Kathy lowered her eyes and pouted.

Zip eased the watercraft around a misshapen root that extended from the shore into the water. Vines and ferns surrounded the trunk from which it grew. There was no sound except the ripples the boat’s motion caused to slap against the shore. A light breeze barely moved the branches above them.

After a few moments Kathy asked, “Why will *you* have to go?”

“Richard Starlight wants Joe, Mark, and me to head the crew that will pursue Zimbardo. We won’t go alone; we’ll have lots of help. And we want to go—I *want* to see this pirate brought to his end! I want to be part of it when it happens!”

“How will they find out where he went?”

“They’re trying to find the smugglers that were with him on the runaway asteroid. They disappeared completely after they escaped, but Space Command is looking for them. We know their names. And they’re also questioning the prisoners on Mars.”

Kathy settled down with a confident smile. “They won’t find him, then. They’ve been questioning the prisoners for months and haven’t learned anything new, and those smugglers haven’t been heard from in four months.”

For the next two hours, the brother and sister lazed their way through the intricacies of the shadowed waterways in Armstrong

Forest. An electronic locator on each water vessel made it nearly impossible to get lost. They stopped at a small tea house and bought lunch, then took their boat down a small stream until they found a clearing. David secured the boat to the right bank, and he and his sister sat in the clearing and ate their lunch slowly and contentedly. When they had finished, David helped Kathy back into the boat, and then sat down at the helm once again.

They had been drifting along peacefully for a few minutes when David's compad alerted him to a high priority call. He put the boat in idle and withdrew the small object from his shirt pocket. Holding it in his left hand and steering with his right, he identified himself to the compad's voice recognition system by saying, "David Foster." The compad lit up, and the face of Richard Starlight appeared on the small screen.

"Zip, this is Richard Starlight." The voice of the head of Starlight Enterprise showed excitement. "I'm calling a meeting for 4:00 p.m. today in my office! We think we know where Lurton Zimbardo went!" David felt his heart sink within him; unconsciously he released the rudder and took the compad into both hands. He had been waiting for this news, but its coming now pressed home upon him how much he liked being with his family.

"Where? How did you find out?"

"We infiltrated the prison system in Eagle City and got the information from a few of the prisoners," responded Richard, answering the second question first. "We got it several weeks ago, but frankly the answer was so incredible that we wanted to confirm it before we took action. These men told us that *there is a dwarf planet much farther out than any other that's ever been discovered!* That must be where Zimbardo has gone! The implications are enormous!"

"What implications? Dwarf planets out beyond Pluto have been discovered and charted for about 150 years."

"The eccentricity of the orbit of this particular planet proves that the old theory of the Nemesis star is true!"

Zip felt his scalp creep. "The Nemesis star?" he whispered.

“Yes,” affirmed Richard. “You know that there has been a suggestion for generations that there was another star somehow connected with our sun—a small, dark companion in an eccentric orbit that brings it into the Oort cloud every 26 million years, knocking comets toward the inner parts of the Solar System. It would explain the regularity of cometary bombardments on Earth and the periods of extinction that result. The theory has rarely been taken seriously, but one bit of supporting evidence is that most stars are binary.”

“But now? That talk’s never come to anything—what makes you think these prisoners are telling the truth?”

“Because we’ve found the Nemesis! Dr. O has confirmed its existence. He located the dwarf planet the prisoners mentioned, and then he found the Nemesis a few hours ago. Be in my office at 4:00 p.m., Zip. Mark and Joe will be there too.”

## Chapter 3: O

WITH A GRIM expression, David slowly returned the compad to his pocket and turned toward Kathy.

“I’m sorry, little one. We have to go home now, and I have to go back to work.”

The little girl’s dark eyes looked intently at her brother. “I know; I heard. But I liked being with you today, David.”

David smiled broadly, although his eyes unexpectedly became moist. He curled his sister into his arms and kissed her forehead, then rested his right cheek on the top of her head. “‘Every little girl is a princess,’ someone wrote once. He must have been thinking of you.”

After a moment he released her and took the tiller of the small boat. It had drifted into the left bank of the stream, nestled against the tall, bright green grass that drooped over the shadowed water. He took the motor out of the idle position, and directed it down the channel enclosed by the leafy canopy.

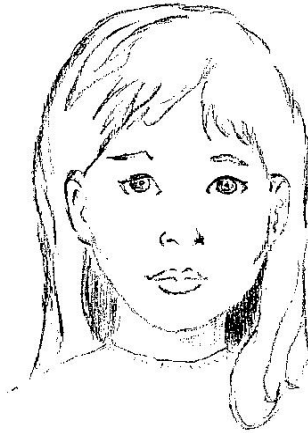
“Why does Dr. O have such a funny name? Doesn’t he have



any other name?" "No, Kathy. He's just 'O'. He's a very strange man. I've never met anyone like him."

"Why does he only have one name?"

David breathed deeply once, tightened his lips a little and looked far down the waterway. Another small boat was rounding a corner up ahead and turning in their direction.



*The little girl's dark eyes looked intently at her brother.*

"Dr. O comes from a small country in southeast Asia. In his culture, when children are born they are only given one name. When they get to be about ten years old, they are chosen by their elders to perform a special task or service for their people. After they have succeeded, the elders give them a second name. It is a kind of 'rite of passage,' and the children know they have a special place of their own among their people. They are given a new status and are treated as adults."

"What happened to Dr. O?"

"Dr. O is a genius. He is a brilliant, absolutely brilliant scientist—maybe one of the best astrophysicists there has ever been. But he shows almost no emotions, and doesn't know anything about getting along with people. He was that way even

as a child. When it was time for him to be given his second name, he refused to meet with the elders of his people. He thought the custom was foolish and would have nothing to do with it. No one could persuade him otherwise. So to this day, he has only one name. He doesn't seem to care."

"That's sad," said the little girl, with heartfelt emotion. "Everybody should know that they belong to someone."

The other boat passed them by. A family of five was enjoying the afternoon, and nodded to David and Kathy as their vessels inched by one another in the still waters.

~

Two and a half hours after his conversation with Kathy, David was sitting at the huge table that was the centerpiece of Richard Starlight's office. The great table and chairs rested on a huge intricately patterned carpet. Not far from the table was a perfectly balanced, detailed globe of the Earth about four feet in diameter.

Richard Starlight's office served as a laboratory, resource library, work and communications center, and lounge. It was situated near the top of the highest tower on the Moon, the headquarters building of Starlight Enterprise located forty miles from Amundsen City. The office covered nearly an entire floor of the tower. In all directions, its walls were treated glass, with clarity that was nearly perfect. The lunar landscape stretched away everywhere one looked.

Richard's personal work space was in one corner of the office, consisting of a large L-shaped desk with two computer terminals. One terminal was used for communication within Starlight Enterprise and the other for contacts throughout all of human habitation. Behind the desk was a rank of bookshelves. A draftsman's easel stood to one side.

Inside a cage about eight feet tall and four feet square was a bright red parakeet. The parakeet had been a Christmas present a week earlier from Richard's wife, Jan. He had named it

“Scarlet”. The quiet sounds of its chirping provided a pleasant background to the earnest discussion that was going on.

Starmen Joe Taylor and Mark Seaton sat on either side of David at the conference table. Richard Starlight sat at the head of the table, his eyes glistening with excitement. Though he was only two years short of sixty, Richard was in peak condition. His black hair showed little gray. Opposite the Starmen were John Rwakatare and Commander John Lewis of Space Command.

“You all have enjoyed the visits with your families, I’m sure,” said Richard. No matter how pressing the business, he always took time to express concern about his colleagues’ personal lives.

“Yes sir!” expressed Joe. “I helped my dad with his work and after we celebrated Thanksgiving with Zip’s family, we all took a couple of weeks to visit family in Canada.”

“As you know,” volunteered Mark, “I worked with my father and Jack and Jill on the realtime transmission experiments, the way I did last summer.”

“Yes,” said Richard. “I saw you a number of times. I hope you took advantage of the break to get some rest and recreation in, too!”

“Oh yes—I enjoyed time with my parents; we all went to the old family homestead in Montana.”

“Then I suppose you’ll take this news as a mixed blessing. In about a month, you’ll be aboard the *Starventure* with a crew of nineteen. Your goal will be to reach the new dwarf planet and find and capture Lurton Zimbardo and the other pirates who escaped the asteroid base. You will have a loyal, dedicated, and highly trained crew to assist you. I will personally handpick the members who will represent Starlight Enterprise. In addition to yourselves, that will be six other people. There will also be ten other crewmembers aboard, who will represent Nolan Mining Enterprise. NME is sponsoring half of the expedition, and is interested in the research end of it. Robert Nolan will pick that part of the crew. Of course, everyone is expected to work together to achieve both goals.

“Jack and Jill will be passengers for the first part of the journey. They’ve been here on the Moon for almost two years, and they want to return to their home. Titan will be in an advantageous position on your outward journey, so you will take them with you. You’ll be traveling far too fast to slow down, but you will jettison them in a small ship in which they can return to their own world.”

The Starmen smiled at one another. They liked the small people of Titan who had been so critical to the success of their mission to free Mars from the clutches of the pirates.

“What about the new planet, sir?” asked David.

Commander Lewis spoke up. “Careful questioning of the pirates who are in custody in Eagle City indicated that Lurton Zimbardo had knowledge of a significant planet or other heavenly body far beyond Pluto, more significant than the known dwarf planets. We thought that was unlikely until the indications became overwhelming, so we began to search for it. Dr. O was one of those who searched.”

John Rwakatare took over the narrative. “And he found it. Early this morning he called Richard with the news. We checked his figures of course, and as usual in his case we found no discrepancies. There *is* a dwarf planet out there, and its orbit proved the existence of the Nemesis.”

“What’s it like? What can Dr. O tell us about it?” asked Joe.

“How do we know Lurton Zimbardo is there?” pressed Zip.

“We’ll go down to O’s lab right now and he can tell us about his discoveries himself,” responded Richard Starlight. “As far as Zimbardo’s presence there, well, of course we don’t know for sure, but there is no other viable possibility. Let’s go see Dr. O. He’s waiting for us.”

The six men pushed their chairs back and headed for the main elevator that gave access to and from the office of the head of Starlight Enterprise. The two Johns had spoken with Dr. O previously and decided not to accompany Richard and the Starmen when they met with the astrophysicist. They bade the others good-bye and returned to their own work.

Dr. O's office was only three floors down. Emerging from the elevator into a spacious corridor, Richard led the way down the hallway to a plain, white door. Written in block letters were the words,

**O**  
**ASTROPHYSICS**

Richard knocked and then went in, followed by the others.

Inside the office was a short man, almost completely bald and a little flabby in the stomach. He was leaning over a long, heavy table that was strewn with papers. Zip noticed that a few small mechanical devices were being used as paperweights.

The man looked up as his visitors entered, then glanced at a clock on the wall.

"Two minutes late," he said to no one in particular. Dr. O had amber-colored skin, smooth in most places but with tiny wrinkles around his almond eyes. He wore rimless eyeglasses designed for close work, with thick lenses about half an inch high at the bottom but which had no glass at all above that. A white laboratory coat went below his knees. On his feet were brown bedroom slippers, threadbare in the front where the tops of his toes peeked through. One had the impression that the brilliant astrophysicist rarely left his lab, even to eat or sleep.

One wall was of sheer, treated glass, similar to the walls in Richard's office. Two personal telescopes were placed there, ready for use; however, Dr. O received most of his images from the immense electronic 'scopes that Starlight Enterprise operated in their research centers. He also had connections to most other major observation sites. His lab featured eight large screens, each with a scan of a comet, planet, or field of stars. Two normal-sized computer terminals were located on a large desk in one side of the room. Another desk in a corner had a third terminal. Bookshelves lined two walls. A water cooler and a cot lined the fourth wall, which also contained the door from the corridor.

"Good afternoon, Dr. O," began Richard. "I believe you know the Starmen. They want to know about the new dwarf

planet and the Nemesis star.”

“Of course they do. I have a lot of information for them. Have them sit down over there.” He waved off to the right without looking in that direction. He hadn’t looked up from the table except to glance at the clock. He appeared to be searching for a piece of paper.

The Starmen sat on a shabby, overstuffed sofa situated in the general direction of Dr. O’s gesture. Richard remained standing and waited patiently for a moment while Dr. O continued to shuffle papers.

“Looking for something?” he inquired gently, after a moment.

“What? Oh, yes... something... Well, it can wait, I suppose.” The small man straightened up and looked at Richard. Richard indicated the Starmen with a glance. Dr. O turned and looked at the three young men in their bright red uniforms. Then he strode over to them and stood before them and began to speak as if he were teaching a class.

“The planet traces a figure-eight orbit around a very small brown dwarf star and our own sun. For some reason I have not yet been able to determine, this dwarf star is, for all practical purposes, invisible. I was able to locate it only approximately through mathematical extrapolation of the data. I determined that it is roughly half a light-year away, and appears to rotate around our sun with an enormously long period, too long to figure out in the short time I’ve had to study it, but somewhere in the range of hundreds of thousands of years, I should imagine.” A smile flickered briefly on Dr. O’s features.

“The planet has a period of approximately 6,000 Earth years and is traveling at a speed of about 100,000 miles per hour. Right now it is a little more than five and a half billion miles from the sun, and coming toward us. Its orbit will bring it somewhere near the Asteroid Belt at its point of closest approach. That will happen early in 2156, more than four years from now.

“As you can guess, its surface is extremely cold. My measurements put it at about 340 degrees below zero. It has an

atmosphere, mostly methane but with some surprising trace elements. Of course at that temperature the atmosphere is frozen onto the planet's surface. It will turn into gas once it passes the orbit of Saturn, and freeze again nearly four years later when it passes Uranus on its way back to the Nemesis star.

"The planet is an ellipsoid with a rough surface, and remarkably dark. The longest dimension is about 4,000 miles; its transverse dimension is about 3,600 miles—maybe a little more. It shows an unusually high concentration of helium-3. Other than that, there is nothing remarkable about its makeup—the usual iron, rock, and so forth. What else do you want to know?"

"How high a concentration of helium-3?" asked Mark.

"Enough to meet the energy demands of several generations, I should think, if you don't count the cost of shipping, mining, and storage."

"How long will it take us to get there?" inquired Joe.

"It's five and half billion miles away, I said, and coming toward us at 100,000 miles per hour. You're the rocket man—do the math," stated the scientist.

Richard broke in. "With the propulsion system we're installing in the *Starventure*, it'll be about sixty days, Joe."

"Dr. O," began Zip. The small man turned toward Zip and peered over his glasses at him, with his eyebrows slightly raised. "As the discoverer of the dwarf planet, you get to name it. Have you thought of a name for it?"

O looked surprised. His eyebrows lifted high and he stepped back a foot.

"Why, I haven't thought about that! I suppose I *do* get to name it!" He looked toward Richard with a silent query. Richard nodded. Dr. O looked pleased.

"Well then, I'll have to give that some thought." He turned away and walked slowly back to his table. He stood there for a moment with the fingers of his left hand wrapped around his chin. Then he looked up and shuffled over to a bookshelf, scanned a few titles, and pulled a volume out and began to leaf through it.

“Thank you, Dr. O,” announced Richard. Dr. O’s left hand made a brief farewell gesture but he didn’t turn around as the visitors left the astrophysicist’s lab.

In the corridor outside, Richard said, “No need to go back to my office. The next two or three weeks will be taken up with planning this journey. Take tonight off and be back tomorrow at 9:00 a.m.”

~

The next morning, Richard Starlight and Robert Nolan addressed a roomful of men and women who were to be involved in the mission to the newly-discovered dwarf planet. The Starmen were seated among a group of about twenty people. The others in the room were the chief engineers and project managers from both companies who were charged with the success of the project.

Robert Nolan of Nolan Mining Enterprise sat with Richard. Nolan was in his mid-forties, slight of build, and balding on top. His analytical mind and his terrific success in building his company had brought him respect throughout the inner planetary system. His willing sacrifice of several NME ships the previous fall—his greatest contribution to the effort that turned aside the runaway asteroid—had elevated his level of prestige with the employees of SE as well as his own company.

For more than two hours, Richard and Robert discussed details of the mission with their team, then dismissed them to get started on the work. They would remain in close contact with them in the weeks ahead.

The news of the discovery of a new dwarf planet, followed immediately by the commitment to send a research ship to land on it, had drawn a few interested parties from other departments who had a free moment and wanted to hear about the proposed, historic venture. After Richard had dismissed those personally involved in the project, more than two dozen curious people entered the room.

The Starmen remained at the back of the room and listened to



the President of Starlight Enterprise.

“The *Starventure* will be powered by a fission drive fueled by americium-242m. The antimatter drive we used last summer to get the *Spud Peeler* to Mars can’t serve us on this expedition. We don’t have enough antimatter to fuel a ship of this size. Right now the fastest drive available is the new americium-242m fission drive, which was perfected jointly by SE and researchers at Nolan Mining Enterprise. It’s not as fast as antimatter, of course, but it’s impressively speedy. Americium-242m can sustain fission in the form of thin films that release high-energy fission products.”

A woman in the gathering raised her hand. Richard acknowledged her with a nod, and said, “Yes, Alexandra? A question?”

“Yes, Mr. Starlight. We’ve been hearing about americium-242m for decades. It only takes about one per cent of the mass of uranium or plutonium to reach its critical state, so it’s obviously highly advanced in the measure of fuel-efficiency—but it’s much more dangerous, also. The reactor has to be redesigned, heat removal is a far more sensitive matter, and the shielding for the reactor to protect the personnel is more critical than anything we’ve dealt with—except for the antimatter drive, I suppose.”

The Starmen sat up a little straighter and listened carefully at this point.

“You’re right, Alexandra,” spoke up Robert Nolan. “In fact, the shielding for the antimatter was much less complicated than that needed for the americium-242m drive. However, NME has developed a special active shielding for the reactor, unique to the atomic pile needed for the americium-242m drive, and we are confident that it will exceed the requirements. The active shielding is, in effect, an energy field that replaces the thick, heavy, cumbersome lead panels so necessary in every other nuclear-powered ship.”

Richard took the floor again. “Even the americium-242m drive is not sufficient to give us the speed we desire to intercept the dwarf planet as quickly as we’d like. We want to get out there as

quickly as possible, since we fully expect to apprehend Lurton Zimbardo on this distant world and don't want to give him any chance to move somewhere else.

"To achieve maximum speed, we plan to complement the americium-242m drive with a 'slingshot' effect around the sun, which will allow the *Starventure* to get to the planet more than five billion miles away within 60 days. Because the 'slingshot' will draw the ship quite close to the sun, the *Starventure* is being covered with several layers of an expensive, rare, highly reflective coating that can protect the ship from a wide variety of radiation. Enough of this material will be applied to the hull to ensure that the ship will survive two close encounters with the sun—the first when it accelerates outward toward the area beyond Pluto, and the other when it uses the sun to slow back down on its return to Earth."

There were other remarks and a lot of questions. Excitement in the room was high.

"Who will be aboard the *Starventure*?" asked one man.

"Other than the Starmen," answered Robert Nolan, "we have only selected the captain: Derf Bors will head the crew. He has long been a valued employee of NME." A ripple of excitement spread through the group. Derf Bors was known as one of the finest pilots alive.

Nolan continued. "The rest of the crew has not yet been selected, but the process has begun. Richard Starlight will select those who will be involved in the apprehension of Lurton Zimbardo and his renegades, should they be found on the planet. With the assistance of my chief of operations, Dr. Beowulf Denn, I will select the crewmembers who will be involved in the research aspect of the expedition."

After the group was dismissed, the Starmen mingled with the others. Mark inadvertently overheard a conversation he was bound to think over more than once in the weeks ahead.

"This is even more momentous than the expedition to Pluto back in 2124," said one man, who looked as if he were approaching sixty years old. "I can remember that liftoff very

well! What a day!”

“I remember it too,” said another, “—and I remember very well the day the *first* Pluto expedition lifted off, in 2117!”

Mark knew his history well. The first expedition to Pluto had ended in disaster when the ship had suffered a catastrophic system failure somewhere between the orbits of Saturn and Uranus. The communications system outlasted the heating and atmosphere recycling systems, so that crewmembers were able to make heart-wrenching calls home to their families on Earth as the ship shut down. Mark had heard many times the famous recording of one crewman’s chilling last words, faintly coming through the static: “It’s so cold, it’s so dark out here...”

## Chapter 4: Launch

DEPARTURE for the newly-discovered dwarf planet was three days away. The Fosters had invited the Seatons and Taylors over for an evening of astrogazing. Astrogazing was a pastime enjoyed by many people. Several commercial telescopic programs were available from which people could bring images up on their home television screens.

The dinner dishes had been cleared away and the three families had assembled in the Fosters’ den. They had set up chairs and sofas so that everyone had a comfortable seat. Allen Foster had the keyboard in front of him, with the newest version of the *Cosmological Reference Book* at his side. No one really expected that he would need the book.

“Everyone ready?” asked Allen. There was a chorus of assent.

“Shall we look for the new planet first?” he asked.

“I’m sure there won’t be anything for us to see, Dad, but let’s save it for last anyway,” said David.

“How about Mars?” asked Joe’s mother, Laura. Allen smiled. Laura always wanted to see Mars. He tapped in the coordinates for the fourth planet and pressed “Enter”. Almost instantly the

six by eight foot flat screen on the wall blazed forth with a crystal-sharp image of Mars.

"Eagle City is out of view right now," observed her husband Charlie Taylor. "Won't come into sight for at least three hours, looks like."

"I don't need to see Eagle City," said his wife. "I like to see Mars from every angle. It's just so exciting to see such a dead place beginning to show signs of life! Can you zoom in, Allen?"

"Any place in particular?"

"How about the Nix Olympica? It's just about to move out of view. It's evening there." Allen zoomed in at a great rate, directing the scan of the planet to capture the largest volcano in the Solar System where the evening shadows were casting it into dimness. Snow covered most of the slopes, and the great peak jutted out in low profile against the hazy atmosphere on the left edge of the globe. Sunlight glinted off the snow-clad ridges and valleys on the heights of the mountain which, at seventeen miles high, was more than three times the height of Earth's Mount Everest.

David's father gradually scanned the fascinating landform, bringing in as many details as he could. For several minutes, no one said anything except for words of appreciation.

"Next?" he asked when he had completed the astrotour.

"I want to see Titan," said Kathy. She sat in an easy chair with her legs curled under her.

Titan was the largest satellite that revolved around Saturn—a moon with a thick, cloudy atmosphere. To be able to see the features of Saturn's largest satellite, Allen Foster would have to tap into a radar imaging telescope.

"No one wants to look outside the Solar System?" asked Allen as he transferred from the customary astrogazing telescope to one with the capability of seeing through cloud cover. Then he entered Titan's coordinates.

"Next time. I'd like to see the Horsehead Nebula," said Mark Seaton. As he was speaking, a small sphere appeared on the screen—the rimy, gray globe that was Saturn's largest moon. Just

below it was an indistinct blue line that was the edge-on view of the great rings. The lower right corner of the screen showed a small portion of the giant planet; behind Titan was a fiercely black sky.

"We'll be there in two or three weeks," said Joe, "—or at least passing by it so fast we'll barely have time to wave."

"If you're going to be flying so fast, how will you get Jack and Jill home?" asked his mother, Barbara.

"We'll carry a small ship designed for the Titanians. When we're in the right place, we'll launch them from the *Starventure* and they'll fly home on their own."

"Can you bring the image in any closer, Dad?" asked David.

"Sure." The zoom enlarged the image of Titan so that it filled about three-quarters of the screen, but most of the details remained fuzzy. Allen adjusted a few controls, and the image suddenly became sharp. "Ah! There we are!" he exclaimed. The group enjoyed the spectacular view as Allen moved the scan around and brought out various details of the only other body in the Solar System that was known to have a resident intelligent population.

Earthmen had met the Titanians during the first Deep Space Exploration in 2130, which intended to explore Saturn. The expedition resulted in the astounding and completely unexpected first encounter of Earthmen with intelligent extraterrestrial life. The expedition discovered humanoid beings barely half a foot tall living on the mysterious ringed planet's largest moon. The Titanians' tough skin and hardy nature made it possible for them to thrive in spite of the harsh environment.

The view brought a lump to Allen's throat. He had been the commander of that mission on the research ship *James Nathan*. The expedition made him famous, but it also forced his early retirement. A radiation overdose that occurred toward the end of the mission nearly killed him and his entire crew, precluded him from any major physical activity, and confined him afterwards to the Earth-Moon system. He was only twenty-nine years old at the time. Though nearly twenty-two years had passed since then,

he was still a famous and well respected man. He did a lot of work in research and development, designing new settlements and ships, and was a major contributor to the training of the current generation of Starmen, including his own son and his son's friends.

But now his interplanetary travels were limited to astrogazing. He knew the coordinates of over four hundred stars, nebulae, and galaxies by heart. He could bring up the images of all the planets and most of their moons and even locate several major comets without having to consult the *Cosmological Reference Book*.

The famous space explorer quietly zoomed in to a smooth place on the surface of Titan. No one said anything, but everyone, even Kathy, knew that that was the site where Allen Foster had landed the ships of the first Deep Space Exploration nearly a generation before. Allen sighed. "Horsehead Nebula, I think you said, Mark, wasn't it?"

"Yes sir," said the big Starman. His legs were stretched out in front of him and crossed at the ankles.

Allen returned to the normal telescopic program. The sound of tapping fingers came quietly and the screen changed abruptly. The new scene never failed to impress. The viewers oohed and aahed at the amazing sight. Allen had deliberately chosen a wide view so that the horsehead shape of the nebula of Mark's preference stood out in the background of the ruby red spume of hydrogen gas that glowed from the energy of fiery stars nearby. The panoramic view showed a large part of the central complex of the constellation Orion, revealing the vast opaque dust cloud of which the Horsehead Nebula was only a small portion. The combination of the dusky murk and the background that appeared to be red mist was breathtaking. Thousands of stars, large and small, were spattered all over the screen—piercingly radiant inside beautiful, wispy, undulating, layered, translucent, magnificent clouds of luminous wonder.

For more than half an hour the ten people gazed spellbound at the splendor before their eyes. Finally David spoke up. "Let's try to find the new planet, Dad."

At last Allen had to consult his notes. He had been prepared for the request and had his notes at hand. His mild brown eyes scanned the figures he had written down earlier, then keyed the numbers into the computer. He pressed "Enter." The screen went nearly completely dark. Only a few dozen stars showed up. In the center of the screen there was nothing.

Allen adjusted the zoom, and the stars drew near the viewer. Still, in the center of the screen, there was nothing.

"I guess it's still too far out to see," said Allen, trying to appear nonchalant. But although they hadn't really expected to see anything, there was no disguising the sudden, inexplicable fear that swept into the room.

~

The *Starventure* was a magnificent ship. It looked almost silver, but had a patina of gold to it, the sheen that was the evidence of the new radiation-reflective coating. Two wide red bands girdled the entire hull, with stripes tapering to points on the port and starboard sides of the ship, directed forward and rearward. The shining spacecraft stood two hundred and thirty-two feet high, securely balanced on three fins. At its widest point it was fifty feet in diameter.

The reflective coating would make it possible for the ship to follow a course that would bring it closer to the sun than any inhabited vehicle had ever gone. A tight sweep around the fiery orb at the center of the Solar System would hurl the ship outward at a tremendous velocity. This "slingshot" effect, coupled with the new americium-242m fission drive, would make the *Starventure* the fastest ship in space. What had taken Lurton Zimbaro and his cronies in the *Tartarus* more than five months to reach would be attained by the crew of the *Starventure* in sixty days.

"It's beautiful, David." His mother Beth stood shoulder-to-shoulder with her son as he and the rest of the crew prepared to board. Their red heads made it obvious that they were mother

and son. David's father Allen stood just behind his wife, holding Kathy up so she could see better. His daughter had her arms wrapped around his neck.

The Fosters were standing at the edge of Starlight Enterprise's primary launching field, just inside the airlock. The *Starventure* was about two hundred yards away. Normally, spacecraft were prepared for launch inside one of the great hangars, and shuttled through an enormous airlock just prior to launch. The *Starventure*, however, was too large for that; its final preparations were being made on the launching pad in the airlessness of space. Workers dressed in lightweight spacesuits were making the final checks before liftoff.

Beyond the *Starventure* Zip could see low gray mountains with the sharp peaks characteristic of terrain that had never known erosion. A brilliant spangle of stars filled the darkness beyond. Earth was behind the facility, out of view.

The equipment had been stowed the previous day; the new propulsion system checked, double-checked, and triple-checked; and the instrumentation and course-programs installed and secured. Lift-off was imminent.

"Yes, it is beautiful. I'm looking forward to being aboard her." His eyes shifted to the right to where the *Star Ranger*, his own dark red ship stood on its fins far across the launching pad.

"Nothing like our own ship, though, is there Zip?" It was Joe Taylor, who had come to the launch with his parents, Charlie and Laura. Joe had quietly come up behind the Fosters as they stood on the edge of the launching pad, waiting for the signal to board.

"Where's Mark?" asked Zip.

Joe lifted his chin. Zip turned in the direction Joe had indicated and saw Mark striding toward them across the tarmac. When he saw that he had been noticed, he waved. In thirty seconds he had passed through the airlock and joined them. All three of the young men wore the bright red uniform of Starlight Enterprise's Starmen. Their helmets were in their hands.

"Your mom and dad here?" asked Allen Foster of Mark.

"Sure. We came with the Taylors. I ran over to say good-bye



to a few friends. My parents'll be right here."

Keith and Barbara Seaton appeared almost at once, having taken a long walk inside the glass corridors that ran around the edge of the launching pad to get a better view of the *Starventure*. A rolling conveyor belt was bringing the last of the crewmembers' luggage through an open door into the storage area of the new ship. The space-suited and helmeted crewmembers were standing nearby, observing the final packing of their belongings.

A solid-looking man of medium height in a green pilot's uniform broke away from the group and approached the Starmen and their families.

"Here comes Derf Bors," Joe said, nudging Zip.

"I can see," said the Starman leader.

The *Starventure's* pilot came through the airlock and removed his helmet and gloves. Bors, forty years old and a little shorter than average, had thick dark hair and a heavy beard to match. Though one of that generation's most famous pilots, he was not unduly influenced by his reputation. He worked hard, and his callused hands had thick, strong fingers. He shook hands firmly with each of the boys' parents, and then brushed a curled finger under Kathy's chin. She smiled and looked away shyly.

After preliminary greetings, Mark asked, "Where are Jack and Jill, Captain?" Mark had a strong affection for the Titanians who had been partners with him and Joe in the liberation of Mars from the pirates.

"They've been aboard for several hours, Mr. Seaton. Couldn't get off soon enough, it would appear. They've got a real bad case of homesickness. Better get aboard yourselves, men. Liftoff is in less than ten minutes."

"Yes sir, Captain," said Zip. Bors smiled, revealing large, bright, white teeth, then returned to the ship. The rest of the crew began to enter by means of a gantry on wheels that had been situated alongside the golden spacecraft. An elevator lifted the crew about thirty feet off the ground, and a metal walkway led into the great open door of the *Starventure*.

The Starmen turned toward their parents and received their embraces.

"We're proud of you, son," said Allen Foster. "I'm glad I'm your father. You're a credit to Starlight Enterprise. More importantly, you're a credit to our family."

David's eyes misted over slightly. "Thanks, Dad," he said simply.

Charlie Taylor added, "He speaks for all of us, men. We're proud of all of you."

The Starmen looked at one another and smiled. "Well...let's go," said Joe. Zip kissed his mother and Kathy and turned toward the *Starventure*. The three young men in red put on their helmets, left the airlock, walked across the tarmac, and entered the gantry. As the elevator car was moving upward, Zip glanced back at his family. Kathy stood between their mother and father, each of them holding one of her hands. He wondered if she were crying.

As the car reached the top of the gantry, all the Starmen looked back toward their families and waved. Three sets of parents waved back. Then David, Joe, and Mark turned around. Twenty feet ahead across the walkway loomed the entrance to the gleaming spacecraft that would be their home for several months. They strode across the metal bridge spanning the distance and entered the *Starventure*.

Passing through the airlock, they found Richard Starlight inside, ebulliently encouraging the crewmembers. Robert Nolan couldn't leave his office, located in an immense space station half a mile in diameter that orbited the Moon about 500 miles above the surface. At the time of the launch, he would make contact with the crew of the *Starventure* by video transmission.

The Starmen had nothing to do during launch. Others would pilot, navigate, and maintain the ship. The Starmen's work would begin in earnest once they reached the dwarf planet. Then they would take command of the SE forces, ten people with the sole responsibility of locating and arresting Lurton Zimbardo and his five companions.

The nine people from Nolan Mining Enterprise, including the pilot Derf Bors, were charged with exploration of the new planet. Once they arrived at their goal, this team would be under the direction of Dennis Bronk. Bronk was a blond giant of a man about thirty years old, with a specialty in chemical engineering. He was friendly in a gruff sort of way. He and Joe had hit it off well from their first meeting. Although the two crews were to work together and support one another, their goals were independent.

"All crewmembers take your acceleration chairs. Liftoff in two minutes," came the voice of Derf Bors over the intercom.

"That's my cue to depart," smiled Richard Starlight. He shook hands quickly with the three Starmen, clapped them each on the shoulder, and hastened out the door, down the gantry, and across the launching pad to the airlock. A brief, encouraging message from Robert Nolan came over the videoscreens. He spoke of his pride in the crew, his confidence in the pilot, and especially his hope for the americium-242m drive.

The countdown ticked off the last few seconds, then reached ignition. The *Starventure* raised off the gray soil of the Moon. In less than a minute the curve of the Moon's orb was visible out the window.

"I never tire of that view," said Zip, with appreciation in his voice. His family was deep in his heart, but the adventure before him was coming to the fore.

"We're heading right toward the sun now," observed Mark. "We're going into the brightest and hottest spot in the Solar System, and then we're going straight to the darkest and coldest."

## Chapter 5: Catapulted to Disaster

THE THIRD DAY out from the Moon, there was a marked difference in the golden ship from normal space travel. Wherever

there was a window toward the sun, the light streamed through almost like flaming liquid—yet it was not hot and did not hurt the eyes. The windows of all spacecraft as well as all spacesuits' helmets were designed to darken in bright light, but the thick quartz windows of the *Starventure* were polarized with a special intensity to protect the crewmembers from the brightness of the sunlight as the ship made its approach to the sun.

"I think it must be like a maelstrom out there," said Mark as he and Joe were walking from the dining area. "It's amazing that we can see such a sulfurous glow and be so comfortable. Starlight and Nolan Mining really got the combination on that radiation coating!" They were passing a medium-sized window, and a rectangle of poisonous light was thrown across their path.

"We've got at least another three days of this, and we don't reach perigee until tomorrow afternoon," commented Joe. "It's very strange, but I rather like it."

"Oh, I like it too! It's uncomfortable emotionally—I feel almost as if I'm walking on thin ice, hoping it won't break while I'm on it! We're so close to the sun with nothing but the hull of this ship between us and being turned into ash like straw in a furnace, but it's exciting more than anything else!"

"When we get out beyond Pluto, we'll wish we were back here, I'm sure."

Captain Bors' voice came over the intercom. "Attention, crew. In five minutes we will pass the point which marks the closest previous human approach to the sun."

"Let's go to the viewing deck," suggested Mark. Moments later he and Joe joined fourteen other crewmembers in the lounge. A large window covered most of one side. Dennis Bronk was there, as were NME scientists Jonathan Parfitt, planetary geologist, and Rebecca Leyden, astrophysicist.

Starman Zip Foster was there too, gazing quietly out the window just inches from the glass. He showed little expression, but Joe and Mark could tell that he was intensely interested in the phenomenon that gripped everyone's attention. Jack and Jill, the diminutive Titanians, were perched on Zip's shoulders,

seemingly as hypnotized by the view as everyone else. Joe and Mark joined Zip and the Titanians.

Outside the window, the sun boiled and churned. Viewers could see a few sunspots in the lower left quadrant, but most of the window was filled with the incredible images of the vast convection currents on the surface of the sun. In the upper right was the curve of the sun's orb, where the atmosphere was visible against the black of space. The hot corona interacted with the relatively cooler surface to produce the patterns of waves, valleys, and eddies on the surface.

"This is magnificent!" exulted Dr. Leyden. "Magnificent!" The yellow, orange, and red gasses seethed in the turmoil of the solar energy. The astrophysicist was breathing hard with excitement.

Derf Bors' voice came over the intercom once again. "Congratulations, ladies and gentlemen! We are now closer to the sun than any human being has ever been—and still getting closer! Point of closest approach will be achieved tomorrow at eight minutes past noon."

"At our closest point less than two million miles from the surface," commented Dr. Parfitt. For a few minutes no one else said anything; they were too enraptured with the spectacle outside to spend time talking.

"How hot is it out there?" asked Joe of no one in particular.

"Almost two and a half million degrees in the corona!" Dr. Leyden answered immediately. "Much cooler on the surface—only about 10,000 degrees!"

Inside the *Starventure*, the standard 70 degrees was maintained without any apparent effort. The radiation coating was working to perfection.

~

The following evening, the Starmen and the Titanians were enjoying their meal in the dining area. It was cramped but comfortable. It was later than most of the crew liked to eat and only one other table was in use. Three members of the NME

team sat there, conversing comfortably. One of them was Rebecca Leyden, who was talking excitedly about the initial results of her studies of the sun's surface after the recent flyby.

Perigee had been achieved a few hours earlier without incident, and the *Starventure* was now moving outward from the sun. The raging, boiling gases still fermented outside the windows of the spacecraft, but the slingshot effect had accelerated the ship at a stupendous rate. When the space travelers awoke the following morning, the sun would be safely behind them.

"When do we find out the name that Dr. O chose for the dark planet?" asked Joe, digging into his dessert. SE had seen to it that a good supply of peppermint ice cream—Joe's favorite—had been placed aboard the *Starventure*.

"He gave me a sealed envelope," said Zip, "and told me to keep it quiet. It's aboard the ship, in the safe. I'm to open it when we come into orbit."

"Melodramatic!" said Joe with a hint of light-hearted scorn. "For a guy who doesn't show any emotion worth talking about, he has his moments!"

Jack and Jill were seated on the table top, sharing the space where a fourth meal would have been laid for another human.

"Dr. O is strange man," contributed Jack. "Like machine with part missing."

Joe snorted. "*That's* for sure! You little people know all about machines. I think maybe that helps you to understand some human beings a bit!"

"Human beings are a lot more than machines, Joe," contributed Mark.

"Not that Dr. O—not much, anyway!" exclaimed Joe, and then abruptly changed the subject. "The food is *delicious* on this assignment!" he said, sitting back after scraping his dessert bowl clean of ice cream.

"We've got to be a tight community for at least five months," responded Zip. "Serving excellent cuisine is a big part of keeping morale high."

"Then I'm for it," concluded Joe with a nod. He sighed with satisfaction. "Too bad you little people can't enjoy good food," he added, turning to Jack and Jill. Titanians had no taste buds. Eating was little more than refueling for them. Dinner conversation and table manners were customs they had had to learn, but with which they had never become comfortable.

"I enjoy it, Joe," answered Jill. She and Jack had consumed small portions of mashed potatoes and a blended drink with minerals and vitamins specially formulated for their systems.

"Yeah, but you can't *taste* it! Now what's eating you, Mark?" Mark had been quieter than usual and somewhat touchy during the meal, even though the steak and thick-cut french fries were among his favorite dishes.

Mark pursed his lips for a moment, and then looked up with a serious expression. "I visited the engine room today and overheard Bronk telling some of the crewmembers what the dwarf planet is like."

Joe raised his eyebrows and spread his hands a little, inviting Mark to continue. Zip looked at Mark without changing his expression.

"Everything he said was pretty accurate, but..." Mark hesitated, "but I had the impression he was sowing discord."

"Ooh, now, what do you mean?" said Joe in a tone that was almost patronizing.

"I know you get along with him pretty well, Joe, but he was telling the crew that where we're going is the coldest place any human being has ever gone, and farther and darker than anyplace in the Solar System. He emphasized that '340 degrees below zero' figure we heard from Dr. O—must've said it three times."

"Well, all that's true," said Zip, but his manner made it clear that he was encouraging Mark to continue. When Joe opened his mouth to say something, Zip raised his hand and stopped him from speaking.

Mark was almost whispering. "He made it sound like some place *sinister*!" He paused a moment, then added, "I had the impression that he's stirring up trouble."

“Bronk is kinda dense when it comes to understanding human relations, I admit that,” said Joe, “but he’s a good guy. Got a good heart. Why would he—or anyone—want to cause trouble on this trip, anyway?”

Zip suddenly had a feeling that someone was listening to their conversation. He turned and noted that the server was at hand.

“More coffee for you, Starmen?” she asked.

After a quick glance at the others, Zip answered, “No, thank you, Evelyn.”

~

Eleven days later, warning sirens erupted all over the ship. The klaxon was shrill, but lasted less than a second. Zip was jerked awake by the piercing sound. Checking his clock, he noted that it was 3:25 a.m.

For a moment, he lay in his bunk, then decided to satisfy his curiosity. He rose and stepped into his bunkside cloth slippers with the rubber-grip soles and pulled them over his heels. He wrapped himself in his blue robe and opened the door from his bunkroom to the corridor. Low illumination revealed a short empty passageway in both directions, but as he was looking, Mark stepped out of the doorway of the adjacent room. Joe’s head loomed over Mark’s.

“Engine room,” said Joe.

“Let’s go,” said Zip.

The three Starmen moved boldly down the corridor, descended a metal spiral staircase, and appeared in the engine room.

“It’s nothing,” said one of the crewmen before the Starmen could say anything. “False alarm. Some kind of short. Everything reads out okay.”

Mark went over to the crewman’s computer and checked his files and readouts. “All right,” he said after a moment. He turned to where Zip and Joe were waiting. “Looks normal.”

“What made it short?” asked Zip.

“Getting some power surges once in a while in that active



shielding, but I'd rather have it too strong than too weak. I think when it surges a bit the alarm system reads it as an overload—but don't worry about it. I'm keeping a close eye on it. That's what I told Captain Bors on the intercom just before you got here. He's satisfied."

The engine mate was respectful to the Starmen, but he was implying that if the Captain were satisfied, the Starmen should be. After all, the active shielding was a product of Nolan Mining Enterprise and he, an NME technician, knew it better than anyone at Starlight Enterprise, Starmen or not. NME was justly proud of this development, since most of the influential inventions of the past generation and more had come from SE. Joe shrugged. "Okay, bud," he said. "I'm going back to bed."

Just outside their doors, Zip asked Mark, "Those readouts really looked okay?"

"Sure Zip—perfectly normal. I wouldn't walk away if I didn't think so, even if it is an NME invention."

"And that explanation of power surges setting off the alarm makes sense to you?"

Mark frowned. "Some of the crew are pretty sloppy, to my standards. SE would never put up with the slipshod attitude I've seen in a few of them. But their work seems good."

Zip's brow furrowed. "Well, then, let's go back to bed—but I'm going to talk to Captain Bors first thing in the morning."

Just after 7:00 a.m., before breakfast and before seeing the Captain, the Starmen were back in the engine room, checking the readouts one more time. A new crewman was in charge.

"You see, they're perfectly normal," the NME technician was saying.

Mark was looking over the information. There was no variation from the expected measures. Suddenly Mark's eyes narrowed. "Let me see the readout from an hour ago," he ordered. The technician handed him another sheet of paper. Mark inhaled sharply. "Let me see the one from 5:00 a.m.—quickly!"

The NME technician scrambled through a pile of papers on a gray metal desk nearby, then handed Mark another sheet. The big

Starman's eyes opened wide.

"Don't you see it, man?" he shouted. "Look at these figures!" He shoved the papers back into the hands of the technician.

"They're fine," said the man.

"They're *not* fine—they're *identical!* *This monitor hasn't been working for at least two hours! It's just been repeating itself!*"

Joe jumped as if stung by a hornet. He grabbed the man's sleeve in a firm grip. "Have you checked the hardware?" The man's wide eyes were fixed on Joe's. Silently he shook his head. With a snort of disgust Joe released the man and headed for the door that led to the reactor. His quick glance at the radiation indicator at the door jamb showed no sign of danger. He threw the door open and rushed into the room, followed immediately by Zip and Mark.

What he saw caused Joe to bellow and fall to his knees in a desperate attempt to back up. The machinery for the active shielding was a mass of molten metal!

"Get out! Get out!" shouted Joe in a panicky voice. He scrambled to his feet, turned, and violently herded Zip and Mark out of the room in front of him, then slammed the door on the reactor.

His face was white and small drops of perspiration beaded his forehead. His hands were clammy and shaking.

"The active shielding is down—down for good," he whispered. "The atomic pile is completely open. It must have been open for hours, since that first split-second alarm! We're in danger, men! The whole ship's in danger!"

Zip ran to the manual alarm on the wall and pressed the button. There was no response.

"The alarms are down!" shouted Zip. The NME technician handed Zip the intercom with hands that shook so badly Zip had to grab for the unit twice. He punched it into operation.

"Emergency! All hands put on anti-radiation suits immediately! The atomic pile is open! The shielding is down!"

While Zip was trying to activate the alarm, Mark had powered up the Geiger counter. The indicator shot past the safe zone and rapidly approached the red. He took the reading, then solemnly looked up at Zip.

“We’ve been badly irradiated! Anti-radiation suits aren’t anywhere near strong enough to shield us from this! We’ve got to abandon ship—everyone aboard!” His glance turned to Joe. “Or all of us will be dead in a couple of hours!”

## Chapter 6: Radiation Sickness!

“...DEAD in a couple of hours!” The words shot into Zip’s brain like a bullet. He reeled, closed his eyes, and put his hands up as if warding off a barrage of blows from a merciless attacker. He had a sudden vision of his father grounded at the age of twenty-nine, and sitting patiently but tragically at home, astrogazing into the depths of the Solar System.

Tales of his father’s heroic last flight home from the radiation debacle on Titan over four years before Zip was born pounded into his mind’s eye. He saw his father at the helm of his ship, unable to keep food down and weakening from hunger, his eyes red through sleeplessness, his bright black hair falling out in clumps. He could see the crewmembers slumped on their beds or collapsing in the corridors, retching without being able to rest, their muscles becoming sore and strained from constant movement, their teeth loosening and falling out. He’d seen the video record of several dozen people in bubble stretchers being taken from their rescue ship as soon as it had returned to the Moon, his father among them, and the chilling close-up of his father’s gaunt cheeks with his eyes sunk deeply into their sockets, his bald head, blotched skin, and toothless mouth.

Zip saw himself experiencing the same awful catastrophe, his career ended before his eighteenth birthday.

Tears rolled unashamedly down Zip’s face. The formerly stolid, analytical, Starman released all at once his years of

unexpressed grief and anger for his father's condition. He began to gasp for breath.

"ZIP!!" yelled Joe. "ZIP! Get going! We've got to move! Get up!"

With a major effort, Zip blinked back the tears and re-oriented himself to the situation at hand.

"I'll help him," said Mark to Joe. "You go find the Captain! Tell him what's happened!" Mark glanced quickly over at the NME man at the desk. He was sitting immobile, with a dazed expression on his face.

"Get moving!" ordered Mark, but the man acted as if he couldn't hear. He was trembling and sweating, but saying nothing. It was obvious that the man was overcome with terror.

Joe was already out the door. Mark and Zip picked up the dazed man and hurried him through the door toward the stairway that led to their rooms on the deck above.

"Repeat the message!" came the urgent voice of Derf Bors over the intercom. "Repeat the message!" But there was no one to answer. After a short pause, Bors commanded, "All hands put on anti-radiation suits immediately!"

The Starmen knew that Joe would find the Captain within minutes, and that the Captain would waste no time waiting for others to bring him the information he needed. Mark and Zip's first concern was for the stunned NME crewman. They brought him to the foot of the spiral staircase. Mark wondered briefly if he could leave Zip alone while he carried the man to the upper deck.

As if he could read Mark's mind, Zip said, "Go ahead. I'll be all right." Zip's voice was weak but clear. "I'll follow you on up. Just get that fellow out of here." Mark threw the man over his shoulder in the fireman's carry and quickly ascended the spiraling steps.

Several crewmembers in anti-radiation suits came to the staircase, intending to descend to the engine room. Mark delivered the stricken man into the care of two of them, who took him back to the crew's quarters. Zip came to the top of the

stairwell, and the others passed him quickly and went below into the engine room.

For the moment, Mark and Zip were alone. "What was it, Zip? What happened to you down there?" Mark's voice was quiet but urgent.

"I saw my father!" Zip explained, his tone pleading painfully to be understood. "I saw my father almost dead from radiation! This happened to him, years ago! I..." Mark stopped him.

"I know. It's all right. We'll get help! We can get the help that he couldn't all those years ago! There's help nearby. We'll be okay. We'll be back on our mission before too long."

"I know," said Zip. "But it was a real shock. I wasn't ready for that at all."

Mark clapped Zip on the shoulder. "Let's go get our suits on," he urged.

Later, Zip and Mark were clad in their anti-radiation suits and had joined Joe on the bridge with Captain Bors. Bors was at the communications center, giving a concise but clear account of the ship's status.

"He's contacting Elijah Base on Titan," explained Joe to the other Starmen, "and relaying the message to SE, NME, and Space Command. He's also sent out a general appeal for help from any nearby ship, though there's no hope whatever of getting any assistance from that quarter. Even if there are any ships nearby, they can't help us—we're traveling about three million miles per hour! They can't catch us and we can't slow down fast enough to let anyone board."

Captain Bors concluded his transmission and turned to the Starmen. While still looking at them, he picked up the microphone and spoke into the intercom.

"Attention all hands! We're in bad shape," he announced. "The active shielding around the atomic pile has failed. The radiation coating on the outside of the ship that kept us from getting cooked as we rounded the sun is reflecting all radiation from the pile back inside. The only safe places aboard the *Starventure* are the two shuttlecraft we are carrying and Nolan's

exploratory ship, the *Omega*. They're also covered with the anti-radiation coating, and the radiation from the americium reactor has not entered them. The *Omega* can hold a crew of twelve comfortably, but we'll make space for everyone in it by removing unnecessary equipment. We must abandon ship." The Captain spoke in a measured, decisive cadence. He expected to say this only once.

"To save our lives we must get aboard the *Omega* and find some medical treatment. The closest hospital is at Elijah Base on Titan. The only way to slow down enough to make a landing there is to use Saturn to absorb the energy of our velocity. I'm going to program the *Starventure* to go into an ever-decreasing orbit around Saturn; we will escape aboard the ships coming from Titan. These ships will also orbit Saturn, but we'll have to aerobrake by skimming the top of the atmosphere. This will help us brake as quickly as possible until we are moving slowly enough that the rescue ships can match our speed. Elijah Base is aware of our position and will launch rescue ships within minutes.

"All hands gather on the *Omega* deck. Mr. Bronk will be in charge until I arrive. *Do not bring anything with you except what you must wear! Everything aboard this ship has been irradiated!*" He signed off.

Joe gasped out, "Three million miles per hour! How can we *possibly* slow down quickly enough to get the help we need?"

"Not very easily, I'm afraid," responded Bors with a level voice, "but it's our only hope. Now you'd better get down to the *Omega* deck while I direct this ship into the proper orbit around Saturn." Without looking to see if the Starmen were moving, the Captain turned to the console and began devising the navigation program he would need. He had already sent the navigator and all other crewmembers to the flight deck.

Joe and Mark stopped by their cabin, where Jack and Jill were waiting for them. They placed the Titanians into their shoulder packs, designed for the small people, and made their way to the flight deck. When the Starmen appeared on the deck where the

*Omega* was bolted down, they were the last to arrive except for Derf Bors.

The *Omega* was a squat, saucer-shaped ship a little more than 35 feet in diameter. It was designed for planetary exploration, with viewports in all directions and a propulsion system that made it possible for the ship to achieve quick and sharp turns. Much scientific equipment for recording and calculation was placed compactly among the living quarters. The ship could sustain a crew of twelve comfortably for up to two weeks.

The deck itself covered the entire span of the ship's diameter. Two large windows flanked racks of tools and other equipment. The *Omega* was situated in the center of the floor. A double door in the side of the *Starventure* could open to allow the research ship to exit. At that time, the entire deck could serve as an airlock. The *Starventure's* two five-passenger shuttlecraft were kept on the deck directly below the *Omega*.

The blond giant, Dennis Bronk, was overseeing some alterations to the interior of the *Omega*. A few crewmen were removing pieces of the massive equipment from the NME exploratory ship and setting it on the deck. Space was at a premium, since in every direction there was only about five feet between the hull of the *Omega* and the interior walls of the *Starventure*. The rest of the crew was standing around nervously, saying nothing. The tension showed on their faces.

Mark noted the anxiety written across the face of Dr. Leyden, and sympathized with her. He wished he could say something to comfort her. Her tension was in marked contrast to the animation she had showed days before when she had been talking about their spectacular passage around the sun.

Captain Bors arrived soon after and saw what Bronk was doing. Consoles, panels, and large boxes were strewn about the deck in random pattern. "Very fast work, Dennis," he commended. "When will we be ready to depart?"

"About two minutes, sir," said the huge man. "We've off-loaded the largest and most easily removed equipment. Now we just have to load up enough CFC pods for everyone. We need

seven more than are standard on this ship.” As they were talking, various members of the crew were bringing the seven CFC pods to the *Omega* and carrying them through the door.

CFC pods were standard equipment on all ships that traveled to the Outer Planets. They increased the odds that human beings could survive emergency situations of extreme acceleration or deceleration. The pods consisted of two parts: a compartment into which a human being could lie down, and a compartment filled with chlorofluorocarbon, or CFC. The passenger could use a control mechanism inside the pod to release the CFC into his compartment.

The CFC was used as a breathing medium instead of air, thus solving several problems with blood gases and decompression. This CFC liquid was capable of carrying dissolved oxygen to the lungs and therefore into the bloodstream. Immersion into a liquid with a density the same as the passenger’s greatly increased the capacity for that person to bear a high G load during high acceleration or deceleration.

When the pods had been taken aboard, the Captain gave the order to enter the ship. “We’ll secure the extra pods after we’ve launched! Let’s go!”

Everyone scrambled aboard the *Omega*. There were comfortable seats for twelve, including the pilot and navigator at the console, and fold-down seats in one section of the hull for others.

“Ten seconds!” announced Captain Bors from the pilot’s compartment. He was rapidly powering the ship up through the emergency start procedure. When it was ready, the side of the *Starventure* opened up and the *Omega* soared out into space. When the lifeboat was gone, the great door of the *Starventure* closed up again. Unmanned, its automatic pilot directed it toward Saturn and into a tight orbit around the giant, ringed planet. The *Omega*, already dropping behind in its desperate effort to slow down, swept onward with its frightened but determined personnel.



The Fosters sat in stunned silence after receiving a personal message at their home from Richard Starlight. With remarkable tact and delicacy, he had informed them of the catastrophe on the *Starventure*. The Taylors, Seatons, and the families of the other SE crewmembers likewise had received a personal communication from the head of Starlight Enterprise.

Richard had also informed the families that a conference would be held in half an hour at SE, and that he and Robert Nolan would address an assembly of department heads of Starlight Enterprise and Nolan Mining Enterprise. The conference would also be broadcast throughout Amundsen City and the Earth-Moon-Mars system. Richard urged the families of the Starmen not to attend the conference, and asked them to gather at the Fosters' home. He would come personally after the conference to talk with them.

Allen and Beth Foster were seated in large, comfortable chairs in their family room. Kathy sat on her mother's lap. No one said anything for several minutes. Allen's breathing was loud and tense. His fists clenched and relaxed over and over. His mouth tightened, releasing only when he exhaled.

Suddenly he jumped up. "I'm going over there!" he shouted. "I'm going to the conference! They can't keep me away!"

"But Allen," pleaded Beth. "Richard asked us to wait here. He'll talk to us himself. You can't help anyone by going. Please stay here with me and watch the conference from home."

Allen turned fiercely to his wife. "I'm not staying here while they talk about our son!" he said evenly. He turned and stamped from the room. Kathy's pained face turned to her mother. Allen didn't hear his daughter begin to cry.

The conference room was filled with people. Robert Nolan was speaking. Richard Starlight stood to one side, watching his friend. Two video cameras were focused on Nolan, beaming his words throughout civilization.

"The collapse of the active shielding appears to have happened instantly," he was saying. His face was drawn and gray. "The

sudden burst of radiation from the atomic pile affected the circuitry for the alarm system, so that it issued a warning signal for less than a second before it was rendered inoperable.”

“What caused the failure of the shielding system?” shouted someone in the audience without raising a hand.

“I don’t know,” said Nolan, responding in spite of the discourtesy apparent in the question. “The system was triple-checked before launch. It was working perfectly then, and worked with no sign of weakness up to the moment of its failure.”

“How long were the crewmembers exposed to radiation?” asked another, this time raising a hand but not waiting to be called upon. The attitude in the audience was strained. The failure of the venture reflected directly on SE and NME. For years they had taken due pride in their safety record and their achievements. All that was at risk now.

“Approximately four hours. Those closest to the pile, of course, are the more seriously affected, but no one seems to have been exposed directly for the entire time.” Nolan’s voice was labored. He was doing his best to respond to questions, but it was apparent to all that he was deeply affected by the tragedy. He looked as if he were carrying a hundred pounds of lead.

The doors of the conference room suddenly flew open. Allen Foster strode into the room with three officials of SE hastening after him. “The effects of radiation poisoning don’t show up for several hours!” he shouted at the podium where Richard and Robert stood. With Allen Foster’s sudden appearance, they seemed unable to move. One of the cameras swung around to capture the image of the furious man, father of one of the affected Starmen and the famous leader of the disastrous Deep Space Exploration of 2130.

“Allen,” said Richard Starlight, with genuine concern. “The crew are all on their way to Elijah Base on Titan. They will receive the best of medical care. They should be fine. What happened to you won’t happen...” He bit off his last words; his voice trailed off, and his eyes dropped to the floor.

As if his words were encased in iron missiles, Allen shouted, “You mean they won’t look like *this?!?*” The last word was blared at the top of his voice. Allen Foster ripped off his toupee, revealing a bald head, scarred with red and pink lines. He pulled off his artificial fingernails, and removed his false teeth. He ripped open his shirt and revealed his chest, scarred with convoluted dark red and purple masses of scarred flesh.

A collective gasp rose from the room. The people closest to Allen Foster involuntarily pulled away.

On the podium, Robert Nolan collapsed.

At the Foster home, Beth covered her face with her hands and began to weep.

Alone in her bedroom, Kathy was kneeling by her bed. “Please let my brother be okay,” she sobbed, over and over.

## Chapter 7: The Yellow Wheelchair

THE *OMEGA* sped on through space. None of the passengers was spending any energy on unnecessary talking. An atmosphere of both tension and resignation was thick.

The great ringed planet loomed ahead, filling more than half the forward window of the NME exploratory ship. The planet’s speedy rotation visibly flattened the gaseous giant at the poles. Bands of various colors spread across its latitudes, indicative of the fury of the atmospheric winds. Near the equator, the jet streams raced in excess of a thousand miles per hour. Hazes of several depths and high-rising clouds added to the variegated hues. The wide banding of the rings, with gray and brown highlights, provided an impressive image.

The Starmen had never been farther from Earth than now, and in any other circumstance would have been spellbound by the panorama. Now, however, they were well under the effects of the radiation poisoning. David lifted his eyes and took note of their proximity to the wondrous planet, but he was not moved.

He felt as if he were being gradually encased in lead foil, layer after layer. His eyelids were heavy; his breathing was labored. With difficulty, he shifted his eyes to Joe, sitting next to him. Joe's head was drooping. His forehead was bright red and blistered.

Aaron Gold, ship's physician and medical researcher, was quietly moving from person to person, checking vital signs and measuring the severity of the radiation poisoning. He had already distributed medication to every person as a remedy to the nausea associated with the first symptoms. As he examined each crewmember individually, he gave an additional dosage to those who needed it.

Several times Dr. Gold shifted someone who was sitting on one of the fold-down seats to one of the more comfortable seats. When he got to the Starmen, he moved them up to where they could sit more easily.

With an effort, Mark retained his interest in the navigation of the ship. His mind was drifting, but he overheard snatches of the conversation between the Captain and Martin Caidin, the navigator.

"...792 million miles out when the shields went down. We discovered it more than three hours later, when we were 805 million miles out."

"Right, which could be good luck for us as far as slowing down goes. We were..."—there was a pause here—"45 million miles from Saturn when we boarded the *Omega*. That gave us five hours to slow to normal cruising speed..."

"...within the window of opportunity..."

"...three million miles per hour, and we have to come virtually to a complete stop! We've got to decelerate by a factor of almost 99%!"

"...can't do it in that short a time without taking a chance of killing everybody aboard... bodies can't take the G-forces!"

"...take any longer, and we're going to die from radiation poisoning..."

"...*can't* take longer... John and the Starmen..."

Automatically, Mark figured that John must be the NME attendant who was in the engine room during the last shift—the one who had become frozen with fear when he realized that the active shielding had gone down during his watch. The four of them had to be in the worst condition.

“How long until we hit the atmosphere?” There was a pause while Mark heard nothing. Then,

“... about seventy-five minutes.”

“We’ll need to get into the pods then in about an hour.”

“...time of contact with the atmosphere, up to 28 G’s...”

“...survive that high a load...?”

“In the CFC pods...up to 50 G’s for several minutes...”

“Experimentally, yes... computer mockups...”

“It’s not going to be pleasant...”

“No other choice...”

“I know. No other choice.”

It seemed almost as if no time had passed, but Mark realized he must have been sleeping, or maybe unconscious. Captain Bors was speaking over the intercom.

“...enter the atmosphere of Saturn in fifteen minutes... the ‘little green pill’ to slow your metabolism and relax your systems. This will help somewhat to minimize the effect of the sudden deceleration. We have a very narrow window of success. If we’re moving too slowly, we’ll be drawn into the planet. Since our fuel is nearly gone, if this happens we’ll have no hope of escape. If we’re moving too quickly, we’ll skip off the clouds and fly off into eternity with no chance to try again. The plan is to skim through the upper atmosphere and let its drag slow us down to a speed that will allow our rescuers to board us. The problem is one of determining the correct ‘atmospheric grip.’ We have about 50,000 miles of atmosphere for this purpose; that means that every second we have to decelerate by about 167 miles per hour.

“The *Starventure* is twenty-five minutes ahead of us. It entered the atmosphere a little less than ten minutes ago and is directly on course. The computer program I used to design our entry

trajectory is the same as the one I used for the *Starventure*. However, since the *Starventure* can take a longer time to slow down, our trajectory is more risky, with a much smaller probability of success. The rescue ships from Elijah Base will be able to board the *Starventure* in about eleven hours. They have to board us within a window of about an hour and a half, if we are to get to Elijah Base and emergency medical treatment before too much radiation damage is done to our bodies.

"When we hit the atmosphere, it'll be like slamming into a wall. We will survive only by using the CFC pods. Enter your pods immediately, and activate them as soon as you are sealed."

There was a general movement as the crewmembers entered the pods. Twelve of them were placed permanently midway in the ship, and the remaining seven had been securely bolted to the frame of the ship. The Starmen shuffled over to one of the pods.

*Just want to lie down*, thought Mark. Suddenly he paused and looked around. Where were Jack and Jill? Then he saw them, sitting quietly in a nook behind one of the great girders that ribbed the *Omega*. He smiled and beckoned. The Titanians scrambled over to Mark.

"Let me take one." It was Joe. He gently picked up Jack, lay down in his pod, and placed Jack next to him. "Not much room, I'm afraid," said the Starman. "In the next few minutes, I won't be in any condition to help you. You'll have to fend for yourself, Jack."

"Sudden deceleration will be easier for us than for you, Joe," said Jack. The equipment that the Titanians used to magnify their voices had been left behind on the *Starventure*. His voice was a bare whisper, but Joe could hear it.

Jill crawled into Mark's pod. Zip saw that his friends were safely ensconced in their pods before he entered his. "Good luck, everyone," he said. "See you later."

"Good luck," echoed the other Starmen.

Zip sealed his pod. By his left hand was the release valve for the chlorofluorocarbon. He had been under its effect three times before, all of them during training at Starlight Academy. It had

been an exhilarating experience once he was acclimatized to it, but the transition was decidedly unpleasant and brought on feelings of panic.

“The easiest and fastest way to get through the transition,” his instructor had said, “is to take several deep breaths, then empty your lungs as much as possible. Let the liquid fill up, then breathe deeply through your nose, taking as much liquid into your lungs as you can.”

*It sounds easy*, thought Zip, as he took several deep breaths, but to choose willfully to inhale a liquid, even the oxygen-rich CFC, went against every instinct he had. He exhaled, pressed the release valve, and felt the liquid surge into the pod. At the last possible second, he inhaled and had the panicky feeling he remembered as a child when he had taken a strawful of milk up his nose. He coughed involuntarily and gasped for breath that wasn't there, drawing more CFC into his lungs. In a moment his system had settled down and the euphoria of breathing in a liquid washed over him. Suddenly it seemed as if he didn't hurt or feel sick anymore.

*I feel as though I can sleep now*, he thought. He began to relax. *Maybe it's the "little green pill," making me drowsy.*

Suddenly there was a wrenching impact. His body slammed against something hard, and then he felt and saw nothing.

~

Zip became aware of his breathing first, and then felt his eyes vibrate a little under their lids. There was tension in his jaw and his teeth chattered a little. With an effort, he relaxed, and the tension subsided. With his eyes still closed, he took a deep breath. Air. Air, not liquid.

“That's better, isn't it?” asked a warm, feminine voice. His body stiffened in shock, then he relaxed again.

*Dreaming. I must be dreaming*, he thought. Suddenly he became fully aware. He wasn't dreaming! He popped his eyes open. One of the most disarmingly friendly faces he'd ever seen

was smiling at him with bright green eyes that sparkled with inner joy. Black hair with dark brown highlights fell about a perfectly shaped face that bore an amused expression that suggested to Zip that she was enjoying his surprise. He was immediately drawn to her.

“Wh—?” He inhaled quickly, then released the breath. He couldn’t help smiling back. They both laughed at the same time. Zip knew deep down inside that he was safe now, and that he would be all right. Everything would be all right.

For a moment the two of them just looked at each other. It was an utter pleasure, he thought, to look into the eyes of this beautiful young woman.

“I’m Kristina Bethany,” she said finally. “You’re in Elijah Base Hospital.”

Zip almost didn’t care about what she was saying—just so she would keep talking.

“You’ve been here about six hours. You’re going to be fine, and your friends are going to be fine. They’ve injected each of you with a full dose of medi-tech nanobots. They’ll course through your entire system, doing microsurgery wherever necessary to effect the repairs your body needs, cell by cell. It’ll take about two weeks. You’ll be monitored all the time. There’ll be other treatment, too, of course. It’s very fortunate that you got here without any further delay, or some of the radiation damage would have been permanent.”

“Are—are you the doctor?” Zip stammered.

“No,” the girl laughed. “I’m a cultural sociologist, linguist, and translator for Elijah Base here on Titan. My job is to help the exchanges between the Titanian culture and our own. But I spend much of my free time at the hospital. Visiting the sick is what I like to do most.”

Zip just smiled. “I’m glad,” he said at last. “My name is Zip Foster.”

Kristina laughed again. “As if I didn’t know! Titan gets news videos too! I’ve known who you are since last summer, when the pirates took over Mars! And I know that it was your father who



first encountered the intelligent extraterrestrial life on this planet.”

Zip smiled and averted his eyes with embarrassment. He wondered if his face were becoming as red as his hair. He had never felt quite as much at a loss for words as he did now. He glanced back at Kristina, and asked, “May I have a glass of water, please?”

“Sure,” she said. Her hand reached down out of his sight, and Zip heard a whirring sound. He craned his head and saw that Kristina was in a wheelchair. It was a bright yellow chair, and had thick, small wheels made for traversing tough terrain. She turned and moved over to a counter, drew a glass of water from a tap there, and brought it back to the Starman.

When he saw the wheelchair, tears came into his eyes. “What happened?” he asked at last.

“What do you mean?” Kristina asked.

“The wheelchair... I—” Zip suddenly was embarrassed again. He knew it wasn’t his business. “I’m sorry,” he said.

The girl laughed. “David, don’t be silly.” Zip felt instantly warm inside. Usually only his family called him David, but he liked it when this young woman did so. “I was born this way,” she continued. “It’s called spina bifida. My spinal cord isn’t complete. Doesn’t slow me down too much. I can do everything I’ve ever really wanted to do.”

They talked for over an hour. Kristina described Elijah Base to David, telling him of the geodesic dome, three-quarters of a mile in diameter, which housed the landing port. She described the twelve levels of living and working quarters that had been dug out of the heavy stone beneath the dome. Recreation areas were abundant and heavily used by a human population that was so far away from home. The hospital was small but efficient, and designed to look cheerful. Small gardens and orchards were placed throughout Elijah Base, and there were three swimming pools.

David was crestfallen when she said she had to leave and visit other patients. “There are eighteen other new patients, you

know! But I'll be back soon."

~

Over the next two weeks, David received many video greetings from Richard Starlight, Steve Cliff, Oritz Konig, and others. He was able to reassure his family that he was fine. He saw the video of his parents and Kathy with their loving greetings. His family's video greeting ended with Kathy delivering a lecture about "being more careful next time." Her exuberant expression belied the serious tone she tried to use, and David laughed and cried at the same time.

Strangely, Robert Nolan sent no greeting, and David wondered why. When he inquired of Richard Starlight about the absence, Richard simply referred him to his father. After David heard his father's message, he was deeply saddened.

"My son," his father said, "Robert Nolan is under psychiatric treatment. I am sorry to say that his being there is my fault. When I received news of your radiation poisoning, I remembered my own accident and I grieved for you. Anger I didn't know I had consumed me. I attended a news conference against Richard's expressed wishes and made a scene. I as much as accused both Richard and Robert of causing you injuries like my own.

"Robert, as you are well aware, is emotionally fragile. At the time I didn't care about that. I'm afraid the damage I did has done him great harm. I regret how I handled my feelings. Richard has forgiven me, but Robert has been unable to talk ever since that day, and he has refused to let me see him. He is under excellent treatment, and I just hope that he will recover. I'm sorry, David."

The next day a greeting came from Montezuma Vly. "I enjoyed your visit a few months back," he said, "even though I heard you didn't take too good care of the disk I gave you with all of Bach's works on it." The disk had been destroyed when the pirates had melted the *Vigilant Warrior* on the asteroid known as

Z25. The *Vigilant Warrior* was the ship the Starmen had borrowed from the SE base at Yellow City on Ceres in the Asteroid Belt, for the mission of locating George St. George. "When you're up and about and not too busy working for the government or some other mindless, heartless organization, come back to the Castle and I'll replace the disk. In the meantime, here's another gift."

There was an attachment with a piece of music on it. He activated it, and the lovely strains of Gustav Holst's setting of "Saturn" from his masterpiece, "The Planets" filled the room. The stately, slow tread wrought a peaceful mood in the supine Starman as the unhurried deliberateness of the music proceeded. After three minutes it suddenly cut off in the middle of the piece, and the voice of Montezuma Vly came on. "That's all you get. If you want to hear the rest, you'll have to pay me another visit sometime." Zip laughed out loud.

"What's so funny?" Zip turned and saw Mark and Joe standing in the door of his room. "Montezuma Vly," he answered. "He..."

"Yeah, I know," interrupted Joe. "He sent the same thing to us too." Joe was carrying a small, cylindrical contraption with a propeller on top. It looked as if it had been made of wire, colored threads, gossamer, and cellophane. A tiny, featherweight motor was enmeshed in the workings.

"What's that?" asked Zip, sitting up.

"Watch," advised Mark. "It's evidence that Joe is about fully recovered."

Joe set it down on a table next to Zip's bed and pulled out a small remote control pad. He pressed a button and the device on the table lifted up into the air. The wings whirled like those of a hummingbird.

"Works like a charm," said Joe smugly. He manipulated the control and the item zipped around the room.

"What do you call it?" asked Zip, with undisguised admiration.

"An ornithopter. Took me two days to build it. There were some problems at first, but now it works fine." The ornithopter

flew out the door and made a turn to the right. Joe strolled casually to the door. Before he reached it, someone shouted, "Joe!!"

"It's Kristina!" exulted Zip. Mark turned to Zip with an inquiring look. The tone of the Starman leader's voice showed that *he* was getting well pretty fast, too.

The yellow wheelchair eased into the room. Joe stepped past it quickly, peeked into the corridor, and brought the ornithopter back. As it hovered in front of him, he held out his free hand and cut the controls. It whirred into silence and dropped into his palm. "Sorry, Kristina," he said—but he didn't look it.

"I'm glad you're all here," Kristina said. "The doctors are going to tell you officially later this afternoon, but I already know that you're going to be given day passes out of here, starting tomorrow. If all continues to go well, in about four or five days you'll be declared completely cured. The *Starventure* won't be ready for about two more weeks, so you'll have an opportunity to see Titan before you lift off and continue your mission."

The Starmen had already been briefed on the progress made to get their mission going again. The radiation on the *Starventure* was in the process of being neutralized by a huge force of Titanian engineers who were involved in the procedure. The Starmen had watched the wall-screen in the hospital's sitting room and seen the Titanians moving over and through the *Starventure*. Several hundred were working with human pioneers and engineers to purify the great ship and make it ready to continue its journey. The electronic and mechanical geniuses of the entire Titanian race were dedicated to the success of the mission.

The large equipment was being treated for radiation, while the smaller equipment and all perishables were being replaced. Most important of all for the crew's safety, standard lead shielding was being installed around the americium-242m atomic pile. Because the lead shielding would add significantly more mass to the ship, the *Starventure* would not be able to reach the velocity which the

active shielding had made possible, but it would guarantee the crew's safety from another shield failure. The americium-242m drive would still enable them to attain enough velocity to keep the mission viable.

The ruins of the active shielding were being preserved and shipped back to the Moon so that engineers from NME and SE could examine the wreckage and try to determine what had caused the failure. The disappointment and shock that had greeted the initial news of the shield failure had turned in many quarters to anger and, in some places, outrage. Richard Starlight, Robert Nolan, and their companies had been publicly vilified in the media without any apparent cessation.

Curiously, the Starmen had no anger toward the two men who had touted the wonders of the active shielding design, and they felt little curiosity about the cause of the failure. Even Joe, who always loved the challenge of engine design, maintenance, and repair, wasn't too interested in the shield failure. By the time he was far along the process of recovery, the *Starventure* was nearing the final stages of its own rehabilitation.

"I just want to get on with the mission and find Lurton Zimbaro," is what he said. "He won't escape us this time."

## Chapter 8: A Walk At 300° Below Zero

IT WAS FIVE days later. The Starmen huddled together at the wall of the enormous geodesic dome that protected Elijah Base from the harsh environment of Titan. All around them were neat rows of plants, for the outer ring of the spaceport had been designed to serve as a hothouse reserved for growing food. Sun lamps bathed the site in bright, warm light; the atmosphere was moist and smelled of rich soil and ripening fruit.

Zip, Joe, and Mark were grouped around Kristina Bethany, preparing to leave the comfortable surroundings of Elijah Base for the dramatic weather and terrain of Titan. Jack and Jill had

joined their friends for the venture and were uncharacteristically excited to have the opportunity to show the Starmen some of the sights of Titan.

“Nervous?” asked Kristina.

“More excited than nervous,” answered Mark for all of them, “but yes, nervous too!”

Kristina laughed. “I know,” she said. “I was very anxious when I made my first foray more than three years ago. Titan has a harsh, unforgiving environment, but I have come to love it. Its beauty is deeply stirring. I have been out many times now. I can’t think of anything better I could give David for his birthday than a walk outside.”

It was March 12, 2152, David’s eighteenth birthday. He couldn’t think of a better gift either. The Starmen and their companions had been cooped up inside the hospital for more than three weeks. They were feeling fine and they chafed with inaction.

For a moment no one said anything. The delicious scent of peaches wafted their way. The aroma made the view just a few feet away all the more appalling.

On the other side of the dome was a brutally torn terrain composed of dark gray stone. The temperature was almost 300° below zero. The atmosphere was thick and gloomy, and mostly impenetrable beyond about a hundred yards. The stones were scored with stripes of filthy ice. In places, a mist hugged the ground, moving gently in eddies and occasionally stirred by a faster current of wind that shot over the surface and then waned. At times, if the wind moved the atmosphere enough, they could see a huge wall of stone that reared sullenly up out of the rocky plateau upon which Elijah Base was situated.

“The atmosphere is mostly nitrogen, with a lot of methane, too, of course,” said Kristina. “The sunlight here is only about 1/100 the amount we get on Earth. You can’t see it from here, but off to the left, through the stony passage about a mile away, there is a large pond of liquid methane. It’s beautiful!”

“Beautiful?” asked Zip.

“Oh yes! Come on! If you’re all ready, I’ll show you. But I’m saving the most amazing sight for last! That’s why we’ll need the lights.” The wheelchair was carrying two great electric lanterns, powered by batteries. A subtle excitement coursed through Kristina’s body, and she turned to look at David who stood at her left shoulder. The sparkle in her eyes was enough to convey to him some of the thrill she was feeling.

“You will like it, Zip!” said the small voice of Jill, who as usual was perched on Mark’s shoulder. Jack was with Joe, already entering the shoulder pack.

“Let’s go, then!” said Zip, and pulled his helmet over his head and sealed it. The Starmen were wearing the sleek suits especially designed by Starlight Enterprise for use in most environments in the Solar System. These suits were made of thinner and more flexible material than was standard, but which was impervious to almost all common causes of puncture. They kept the wearer comfortable in most atmospheric conditions, pressures, and temperatures found from Mercury to the depths of space. Kristina wore a standard suit developed for use on the Outer Planets and their moons.

When they were all ready, they tested their speakerphones to make sure that all of them, including the Titanians, were able to communicate. They ascertained that their air tanks were full and functional, and then the group moved into the airlock. Kristina pressed the button that evacuated the airlock of breathable air, then opened the door to the outside. She rolled forward without hesitation, and the Starmen followed her.

The Starmen couldn’t have seen it from the dome, but it was evident now that there was a path that coursed from the airlock door through the tumbled rocks and quickly descended. A light breeze swirled the dark fog in streams past the walkers. The Starmen had to walk fast to keep up with Kristina.

Around them rose spires of ice of several shades of gray, blue, and lavender. Ice also filled the interstices of the rocks that ascended on both sides of them in cracked pillars. Many rocks and small boulders littered the ground as well, but they had been

cleared to create the path that Kristina's wheelchair was following.

"Suits are handling this cold just fine," observed Joe to no one in particular.

"Yeah, no problem at all," agreed Mark. "Maybe next time we can wear shorts and sandals and we can have a picnic out here."

"I can see you boys are getting well," said Kristina without slowing her wheelchair down. Zip was doing his best to stay close to her.

After fifteen minutes they emerged from a pass onto a shingle beach, made up of large pebbles no smaller than golf balls. The beach curved smoothly away in both directions. Before them was a large lake whose surface glinted dully like leaden silver. Small rippling waves nibbled at the beach. The opposite shore was lost in the murk.

"Methane," said Kristina. Zip laid his right hand on her shoulder.

"It *is* beautiful," he said softly. "I wish we *could* have a picnic out here, I really do." Kristina looked up at him once again, and smiled widely.

"Is it safe to touch it?" asked Joe.

"Yes. In your suit you could probably even swim in it." Joe and Mark approached the shoreline and bent down. Simultaneously they put out their hands and gently stirred their fingers in the dull, thick liquid.

"Methane. Liquid methane. Unbelievable," said Mark.

After a few moments, during which the Starmen paced the shore in both directions, Kristina said, "If you're ready, next I'll show you one of the wonders of the Solar System."

"Lead on, Kristina," said Zip. The young woman turned her yellow wheelchair to the right and began to make her way over the large pebbles of the beach. Her progress was slower than it had been when the path had been smooth rock. The Starmen followed her.

"As you know," she began, "the Titanians are not native to



Titan. We've known that from the earliest stages of our intercultural exchanges. We're only beginning to learn their history, since contact with them was first made only twenty-two years ago with the first Deep Space Exploration. Of course, I don't have to tell you that, since David's father was the leader of that venture. Sustained contact only began twenty years ago when Elijah Base was founded.

"The Titanian people live in several cities below ground which are artificially protected. Several of them are underneath the lake. The artificial protection told us right away that they are not native to Titan. The normal atmosphere on Titan is about 270° below zero, but the Titanians live in cities where the temperature has been made significantly warmer—about 100° below zero. This must be their natural habitat, but it nowhere exists on Titan." Kristina paused and grinned in excitement.

"The cities are all located within about twenty miles of one another," she continued. "They are oxygen breathers, of course, but the only accessible source of oxygen on Titan is methane ice hydrate—which is plentiful! They mine this compound and heat it to drive off the methane. That leaves water, from which they purify and extract oxygen. Their blood is *incredibly* efficient! It contains a wonderful polymerized extracellular hemoglobin-type molecule, which enables the Titanians to *pack* the oxygen like no other creatures we can even imagine!

"The total population is stable at about 600,000. The Titanians are long-lived—somewhere about 180 Earth years is an average life-span—and they produce children infrequently.

"We've learned that the Titanians have great skill and aptitude for mechanics and electronics systems. They are geniuses in mathematics and logic. However, as you know, the arts have little interest for them."

"We like to build things. We like to fix things," contributed Jill.

Kristina continued. "Their capacity for emotion is less than ours. They have fewer emotions and, from our point of view, no extremes of emotion. Also, since the arts do not interest them,

history and social sciences are only a small part of their culture. For a cultural sociologist like me, it is enormously frustrating and terrifically challenging. There is so much here to learn, and the Titanians themselves can only provide marginal help. Friendly and helpful as they are, it is hard for them even to sympathize with my intense desire to learn their history.

“Their records are scanty and their memories—their racial memories, that is—are jumbled and conflicting. It is hard to sort out the difference between myth, legend, folk tale, and solid fact. This is the primary part of my work: to learn the true history of the Titanian people.”

“Must be exciting!” said Zip.

“Oh, it is! It is like studying the archeology of an ancient people when their descendants are alive and working with you. But it is so frustrating, too, since they do not know what is important in their own past! I have interviewed hundreds of these wonderful people! As I become increasingly fluent in their language, I am discovering more and more about their legends. I have identified several strains of racial memory and am putting together a general picture of what probably really happened—how they got to Titan!”

And here Kristina became almost animated. She revved the wheelchair a little and surged ahead. “And that leads to my recent discovery! I found this only two weeks ago, and besides myself only a few of my colleagues have seen it! It’s in there, up ahead—the great Gorge!”

Since they had started to walk along the beach, they had kept the lake on their left. On their right was a high wall of stone, so gray as to be almost black. Although it had lines and fractures in it and an occasional white frozen rivulet, it was solid, smooth stone that rose up far out of their sight. Suddenly the Starmen found themselves at the mouth of an immense crevasse. The wall continued on past the opening into the dusky distance, but the enormous crack in the stone went upward into the clouds.

“This is it!” announced Kristina. Her voice trembled with excitement. “David, you’ll have to carry me in. The wheelchair

won't go any farther."

With a sudden uprush of pleasure, Zip reached down and took the girl into his arms. Her left hand wrapped around his neck; her right pointed into the crack ahead.

"You'll have to carry the lights, Mark and Joe. This way!" she said. Zip stepped over the out-tossed rocks and entered the deeper gloom of the stone passage. Mark and Joe, with Jack and Jill, followed, carrying the two great lanterns that Kristina had brought on her wheelchair.

"It opens up in a short distance, and there is even light! You'll see," said Kristina. About fifty steps later, Zip stepped around a corner and caught his breath in wonder. Before him the passage opened up, leaning upward to the left. That side of the passage widened so that it looked like a steep hill. The path they were walking on continued on a ledge, but its right side dropped suddenly straight down about two hundred feet into a chasm. Far below was a dull river.

The right side of the passage rolled upward and overhung the path. High above and to the left was an opening that ran the length of the passage. Light gray illumination filtered down, casting the scene into an eerie, shadowy relief.

"Where does the river go?" asked Mark. "We didn't pass it coming in."

"I don't know," said Kristina. "We've known about this Gorge for some time, but it hasn't been explored much. Most of the personnel on Elijah Base, as you know, are there for the space traffic. Only about twenty of us are research scientists, and most of us work inside the dome. There are only three geologists on staff. *My* position would be an indoor one except, first, I like to go outside but, even more importantly, because of what I discovered!"

"Don't keep us in suspense any more, Kristina! What is it?" begged Zip.

"We have always assumed that the Titanians arrived here on their own power. They were skilled in mechanics, they understood engineering, and there was no reason to suspect

otherwise. But in my interviews with them I gradually picked up the story not only that they had migrated here several thousand years ago, but that *they were brought here by another race!*”

Zip felt his scalp tingle with the news. Kristina went on.

“And I’ve found the evidence of it. It’s in this Gorge! Zip,” she paused and searched his face, then turned to Joe and Mark, almost as if pleading. “Mark! Joe! This other race was highly advanced scientifically! They built nuclear-powered heaters that warm the environment of the cities up to 100° below zero, to sustain the Titanians in their new home—and these machines have been functioning for thousands of years!”

Joe and Mark inhaled sharply. Zip’s eyes became large.

“I’ll show you! This way!” She pointed with her right hand a little farther down the path.

Small white dots began to drift downward from the rift above them, looking almost like snowflakes. The group hurried on, but Mark took the time to ask, “What’s that? What are those white flakes?”

“That’s methane snow,” answered Kristina. “Or half-frozen rain, however you want to describe it. It’s one of the most beautiful sights on Titan, but it’s rare! The temperature inside the Gorge is a little higher than outside, so when it snows outside it’s likely to rain inside here.”

As they watched, the flakes came down in increasing density from the opening above. They fell as if in slow motion. About fifty feet above the path, the flakes melted into a slush and then transformed into large drops. When they struck the path, they emitted a pale vapor.

As the methane drops fell around them, the party rounded a corner. The path widened.

“There!” said Kristina, pointing to a place in the wall where it was evident that some excavation had been done. Slabs of stone were set aside and there was a cave mouth leading into the side of the mountain. Shaped almost like a candle-flame, the cave was about five feet across at the base, but tapered sharply to a point about twelve feet above them.

“It was concealed, but I followed the legends of the Gorge and was convinced that there had to be something here. Once I knew about where to look, it was not hard to find. My colleagues brought me here and we found it! Go on! Go inside!”

The Starmen entered the subterranean passage and moved on smooth, rock flooring. They ignited their standard illumination, which provided a radiance from thousands of tiny sources all over their suits. They went only a dozen feet before coming to a stairway that led down to the right.

“This is amazing, Kristina! This is a magnificent discovery!” hailed Zip. They came to the bottom of the stairway. The passageway opened up on the left, deep inside the heart of the mountain.

“Joe and Mark, turn on the lights!” Kristina urged. The powerful spotlights shone forth. The Starmen set them on wide angle. Before them were ranks of great machines in a three-quarters circle, inside a room about fifty yards in diameter and forty feet high. In the center of the room was a raised dais with a control panel.

Zip laughed with excitement. Joe shouted aloud. Mark smiled. They put the lanterns down.

“Do you see?” asked Kristina needlessly. With Kristina still in his arms, Zip strode boldly to the control dais and ascended the steps. The floor of the dais was made of some kind of flawless metal. Heavy gray panels were arranged on it in a square, with ranks of switches, displays, buttons, and dials.

“Mark, look at this!” Zip whispered. The big Starman was not far behind him, with Joe at the tail of the procession. Mark came up to the dais floor and began to examine the controls.

“Made by people like us,” said Mark, “or at least *shaped* like us. Stairs, buttons for fingers, dials...”

Suddenly they heard Joe gasping. “Men, men! You’ve gotta see this! Come down, come down right away!”

“What is it, Joe?” asked Kristina anxiously. Zip and Mark were already hurrying down the stairs. Joe didn’t answer. The other two rounded the corner and came to the opposite side of

the dais from the entrance. Joe was waiting for them.

“What is it, Joe?” repeated Zip. Joe merely tilted his head toward the dais. Zip and Mark followed his glance.

There, imprinted on the plain, metal wall at the back of the dais was a huge, rich, golden symbol—a lush planet with about 80% blue oceans, a few continents, and thick cloud cover. Three small moons were arranged at the upper left, set at the points of an equilateral triangle.

The Starmen were speechless, with awe written across their faces. Kristina, puzzled at their reaction, said hesitantly, “We assumed that was the Titanians’ home planet.”

“No,” said Zip. “It can’t be. It has to be the planet their benefactors came from. We have seen this symbol before. They’ve been to Mars, too!”

## Chapter 9: “Darkness and Cold”

KRISTINA INSISTED that they return to Elijah Base without too much delay. The Starmen were in the latter stages of the treatment for radiation sickness, but they were still subject to unexpected bouts of weakness. She had wanted to show them the chamber she had discovered, but was not prepared to examine or analyze the machines on this jaunt. In spite of their eagerness to explore, the Starmen acquiesced to her wishes.

As the group returned to Elijah Base, Mark and Joe told Kristina that they had seen the three-moon symbol once before—on the NPACs they had used on Mars. They had been lent by the mysterious figure that had identified himself as Jogren and had saved them from a blizzard in the Martian outback when their oxygen was almost depleted. The NPACs—short for Nuclear Powered Air Compressors—were breathing mechanisms that drew in and compressed the thin Martian atmosphere and allowed the wearer to travel on the surface without concern for running out of oxygen.

Jack and Jill had been part of that expedition. Once Jill had seen the apparatus, she had understood the concept immediately. She explained to Kristina. “Good machine! Better than air tank! Never run out of oxygen!”

At the time, the Starmen had assumed that the NPACs had been the top-secret invention of a manufacturer on Earth, and were irritated that a prototype was in use on Mars when they had not heard of it before. Now they knew differently.

“Clearly the NPACs, like these great machines in the Gorge, are the products of a superior alien race,” mused Zip. “This is the race that brought the Titanians here. Obviously they also visited Mars, and left the NPACs behind—and those machines are still functioning! But why did they move the Titanians, and where are they now?”

“And why did they go to Mars?” interjected Mark. “Did they have any connection with the native population there? Could this alien race have moved the Martians the way they moved the Titanians?” Mark was thinking of a vast, empty, ruined city in Mars’ northern hemisphere that had been discovered by the Wind People over a century earlier. It was a strange site that proved that there had been a small, native population on Mars once, but nothing more had ever been discovered. It was now the center of an area claimed by the Wind People as their own, and few other than themselves were allowed to enter it.

The very few scientists and researchers who had been permitted to visit described it as a curious place almost barren of artifacts, yet without a doubt the site of a long-term settlement of intelligent people whose level of technological achievement was bewilderingly unclear. There was evidence that the city had seen a sudden migration of its population. Much speculation abounded about the fate of the lost Martian race, but there could be no definitive answers without further discoveries. There had simply not been much interest in Mars since the Collapse, but it was on the rise as terraformation of the red planet made progress.

Joe asked, “Kristina—you said that the Titanians have been here in the order of several thousand years?”

“Yes. Their legends say that the beneficent race rescued them from some kind of predator that was threatening their home planet. The only way for them to survive was to migrate. They had no capability of their own for traveling in space—and still don’t—but the alien race brought them from another star system.”

“Could these aliens be the same people I saw on the pirates’ asteroid?” asked Mark. “Maybe they’re the ones who built it! Same body type, and the machines back in the Gorge bear a resemblance to what we saw on the asteroid.”

“That’s a strong possibility, Mark,” said Zip. “At least it is a hypothesis well worth following up. But the same question remains: Where are they now?”

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The following day, Zip, Joe, and Mark visited the hangar where the *Starventure* was being made ready for re-launch. Captain Derf Bors was supervising a crew of ioneers and mechanics from Elijah Base in the final steps of preparing the ship. In addition, several hundred Titanians were swarming over the gleaming hull and throughout its interior. The spacecraft was lying on its side in the horizontal launch position, which made it accessible to the Titanian repair crew.

“Look at that!” Joe nudged Mark and pointed. Nearby, a scaffold two feet high was supporting three Titanians who were busily engaged in rewiring the interior of a small chamber on the outside of the ship.

“They can get that work done in one-third the time it would take our own engineers, Mr. Taylor,” contributed one of the Elijah Base mechanics that had witnessed the exchange. “Without their help, we couldn’t have got this ship ready to travel in under four months!”

“As it is,” broke in Captain Bors, who had strolled up and joined the Starmen, “we’ll be finished this afternoon. Two or three days for a thorough check of all systems, and we’ll be back



on our way out beyond Pluto!”

“I haven’t thanked you yet, Captain, for saving our lives,” said Zip. “If it hadn’t been for your quick thinking, right decisions, and terrific piloting, none of us would have survived!” Joe and Mark echoed this sentiment.

“You’re welcome, Starmen!” said the Captain with a nod. “I haven’t lost a ship yet and I didn’t intend to start then. To tell you the truth, I feel honored to have been asked to pilot this expedition, and I’m personally committed to its success!”

“How’s John’s recovery coming?” asked Mark.

“John will be fine. His confidence is not what it was, but in the long run that might be good. It was his over-confidence that kept him from discovering that the active shielding was down before you three came into the engine room. I guess I should thank *you* for saving *my* life, and the lives of all the crew. Should be a tight crew, now, and a much more careful one. We’ll be lifting off two days from now, if all goes according to schedule.”

~

The *Starventure* was free of radiation and had been re-provisioned. The americium-242m drive had been surrounded by the customary lead shielding. Each crewmember had been thoroughly examined and declared fit to return to duty. Everyone had dietary supplements that would help their bodies gain back strength lost through weakened cells. A special regimen of exercise, adapted from the normal schedule that was vital during long space travel, had been designed for each person according to need. Most of them were eager to continue the journey. They were all spacemen, and Elijah Base was beginning to feel somewhat confining.

Kristina was among the large crowd of humans and Titanians who gathered for the launch. She had become the favorite of many of the crewmembers of the *Starventure*, and all nineteen took a turn to bid her a special farewell as they entered the craft.

The Starmen made a point of being the last to do so. They

were able to say an emotional good-bye to Jack and Jill, then turned to Kristina. Each one in turn bent down to hug her. At the last moment, Zip added a quick kiss. The girl looked up with complete surprise showing in her face.

Zip smiled. "I'm coming back before long," he said.

Still wearing the look of surprise, Kristina said, "Try not to be sick then."

Zip turned quickly and was the last to enter the *Starventure*.

"Falling in love with your nurse, are you, Mr. Foster?" said Joe. Very uncharacteristically, Zip ignored the gibe and walked to his bunkroom. Joe turned to Mark and shrugged.

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An hour after departure, the Captain's voice came over the intercom.

"Your attention, please. As originally planned, the journey to our destination was to take 60 days. We lost 28 days by having to stop on Titan. We are now carrying the lead shielding, which increases our mass significantly, and rather than traveling by Saturn at 3 million miles per hour, we are launching anew. Fortunately, since the sun's gravity is weaker this far out, it will be easier for us to regain lost velocity. The americium-242m drive is working to perfection. Estimation is that we will encounter the new planet approximately 55 days from now—that's about five weeks behind schedule. Our average velocity will be almost three and a half million miles per hour. We will accelerate to midpoint, then decelerate to meet the planet and achieve orbit. Out."

The *Starventure* surged ahead in a tight swing around the great planet. At the precise moment, Captain Derf Bors released the spacecraft from its orbital trajectory and directed it away from the sun. The Starmen had gathered on the observation deck, gazing silently out the window at the sweep of the fabled rings of the sixth planet. Above them a smooth plane glowed in the faint light of the sun. They were not close enough to see details in the

rings—just the magnificent expanse of silver and gray banding with an occasional glitter. The Captain had already increased the *Starventure's* velocity to an impressive level. As the ship coursed past the rings, the sky before it seemed swept crystal-clear. The stars showed like silver flakes.

No one realized exactly when the moment came, but all three Starmen shared the feeling that they were now outside Saturn's system of rings and satellites and had definitely entered the second stage of their journey to the dwarf planet.

"Let's go exercise," suggested Joe. Zip grunted in assent and they all stood up and went to the *Starventure's* gymnasium. In the ship's low gravity, only resistance training was possible. Elastic bands of varying thicknesses and strengths were used in place of weight lifting, sit-ups, push-ups, and similar exercises. The Starmen quickly worked up a sweat as they took turns doing routines with brief breaks in between the sets.

"Odd that Robert Nolan would fall apart as completely as he did. I was sure sorry to hear that," said Joe.

"Yeah," answered Mark. "But he always struck me as kind of unstable. The failure of his active shielding had to come as quite a blow."

"Couldn't have been more public or more humiliating," added Zip, sliding under a strap so that it wrapped around his shoulders so he could do a set of push-ups. The ends were attached to the floor. He began to perform slow presses, breathing out slowly with each effort. After he had done thirty push-ups, he paused for a break. "My father said that Nolan was so devastated that he couldn't, or wouldn't, talk to anyone, even after a couple of weeks in the hospital. But if even Richard was affected by the media assaults, it must have been bad ..." Zip shrugged.

Joe was seated on the end of a bench. He took a strap into his right hand, made a fist, and began to pull against it to maintain the muscle tone in his biceps. He tried to talk while he was exercising. "What a shame..." Exhale. "The active shielding was..." Exhale. "...the triumph..." Exhale. "...of his career..."

Exhale. "So he hoped..." Twenty counts later he switched hands.

"Do either of you feel any, well, anger toward them for the shield's failure?" asked Mark. He was putting on a chest harness prior to starting several sets of sit-ups.

"Actually, no, I don't," said Zip. "I never really thought about it. I was frightened, because of my father, you know, but I wasn't angry."

"I wasn't either," added Joe. "I don't understand the reaction on Earth and the Moon against SE and NME. Can't figure out why anybody would be angry."

Just then there was a series of angry shouts. Somewhere not far away several men were shouting at the same time. The sudden vehement sound was alarming.

*"You almost killed us!"*

*"You could've fried everybody on the ship!"*

"It wasn't my fault," came a pleading voice. "I didn't design the shielding!"

*"Rocket vacuum! You couldn't even read the meters to see what was happening! Everybody's getting SLOWLY COOKED and you're just sitting there!"*

"C'mon, I got it worse than anybody! It wasn't my fault!"

*"Yeah, and when you found out about it you just froze up and let us cook some more!"* The sound of a punch and a cry followed these words quickly, and a body slammed against a bulkhead. There were more shouts and more punches.

The Starmen ran out of the gymnasium. The sounds of the fight were coming from the crew lounge one floor down. Zip, Mark, and Joe quickly descended and found four NME crewmen beating John, the NME crewman who had been in charge of the engine room when they had discovered that the active shielding had failed.

"Break it up!" Mark bellowed. He entered the fray, pulling the largest attacker off the hapless John. Joe and Zip jumped into the middle as well, each receiving a blow or two for their troubles.

John was huddled against the bulkhead with his arms over

his head. The other NME men were furious. Their faces were red and their eyes bulged. Their neck muscles were corded with the intensity of their emotion. All were breathing hard.

*"This scum would've just sat there and let us fry!"* screamed one of them, by way of explanation. His arm whipped out in a dismissive gesture, indicating the engine man.

*"This bucket has been doomed from the beginning!"* added another, spittle at the corners of his mouth. He calmed down slightly and fought to control his speech. "We've heard about this new planet! Darkness and cold like nothing any of us have ever seen or heard of before! You can't deny it! This 'active shielding' failure is just the beginning! And you, of all people on board this ship—" here he pointed a finger in Zip's face, "should be the *first* to demand that we go back to Earth! It was your father that got his own crew cooked out here!"

Zip's gut recoiled as if he'd been struck. His face tightened and his eyes blazed. He prepared a punch that would have shot out so fast the man could have had no defenses whatever. It would have broken his sternum before flinging him across the room. Joe laid his left arm on Zip's shoulder.

"Zip," was all he said.

"You..." Zip began, in a tone that burned like a red hot poker. Another of the NME crewmen burst heedlessly into the exchange.

"If we keep going, we'll be so far from help that if anything happens to us, we're done for!"

"What do you mean, '*if* we keep going', Saunders?" It was Captain Derf Bors, who had come silently into the room. With his sudden appearance, the fury of the four men subsided and turned into a sullen shame. They all dropped their heads. John kept his face averted.

Zip felt a flush of shame cover over his own face as he measured his initial reaction to the ignorant, thoughtless man's words. A great grief came over him as he considered his father's fate once again, and tears appeared in his eyes. He turned quickly away. Only Joe and Mark saw the tears.

“Beowulf Denn, Robert Nolan’s second-in-command hand-picked you men from a *large number of applicants*,” barked the Captain. “He expected the best from you and *I expect the best from you!* One more outburst like this and I’ll put you in the brig for the remainder of the mission! I can guarantee that you won’t be ‘dark or cold’ in there, if that’s what you’re afraid of! With the success of this mission, the name of every person aboard this ship will be held in honor throughout history! Don’t lose your chance! Do you understand me?” He looked directly into the eyes of each man in turn.

None could hold his glance for more than a second, and all quietly muttered, “Yes sir.”

## Chapter 10: The Planet of Fear

NEARLY A MONTH passed. There were no further incidents like the one the Starmen had witnessed, but a feeling of tension remained throughout the ship. For a few days at a stretch it might appear that it had been dissipated, but at other times it was very strong. The problem centered around five men from Nolan Mining Enterprise: the four who had assaulted John, and Dennis Bronk. Bronk, however, seemed to be no more than thoughtless.

The Starmen talked privately several times about the unease that filled the ship. Joe was convinced that there was nothing malicious whatever about the huge chemical engineer for NME.

“Get Bronk talking about chemical reactions on supercold planets,” Joe insisted, “and he can keep a listener fascinated for hours.” But mention actually setting foot on such a planet, and Bronk expressed fearful reservations without regard to the damage he was doing to morale.

The other four NME men, however, were inherently vicious. They were specialists in their fields and could do their jobs when it was demanded of them, but their personalities were marked by complaint, refusal to cooperate with others, and a constant

attitude of being someone else's victim. These four spent most of their free time together and were welcome to it. As the days passed, the rest of the crew was glad to see their backs.

On one occasion, Joe had taken the place of Martin Caidin, the *Starventure's* navigator, and sat talking with Derf Bors.

"Velocity at just under four million miles per hour," said the Captain. "We've passed the midpoint of the journey from Saturn to the new planet and are beginning to decelerate. We just skimmed past the planetoid Baltay, on its path between Neptune and Pluto. The orbit of Pluto is not far ahead now."

"Mighty strange phenomenon, this dwarf planet," commented Joe. "Hardly call it a planet, really, with its orbit and all."

"Even stranger is the other sun it orbits," said Bors.

"Yes, that's for sure!" affirmed Joe with a nod. "It's a shame it's so far away. It'd take a few years to get there with the propulsion systems we've got."

"I'll bet somebody's planning a proposal for sending an unmanned probe there right now."

"You're probably right. How are you keeping us on course?" asked Joe, changing the subject.

"Not difficult at this point. The planet we're heading for is coming in our direction directly from the star called, 'My Honey'. Even though I can't lock our guidance computers reliably onto the planet yet, I can use 'My Honey' as a guide star until we're within thirty million miles or so of our goal. The guide star is near the Sombrero Galaxy, 20 degrees below Regulus, which is located almost precisely at the 150 degrees point on the galactic ecliptic. When the shipboard navigational computers are close enough to determine the position of the planet, I'll recalibrate the program. It should only need minor correction then."

Joe figured later that it was just about the time he had the conversation with Captain Bors that his excitement began to build. Their goal didn't seem so far away now. Within a month, he would be walking on the dwarf planet, hunting Lurton Zimbardo. He was determined that what had begun with the

assault on Mars nearly a year earlier was going to end on the planet whose orbit took it farther from the sun than any other known body.

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“We’ve passed the orbit of Pluto!” announced the Captain over the ship’s intercom. “All hands gather in the dining hall!” Captain Bors had prepared a celebration for the time the *Starventure* surpassed the previous official record of farthest distance from Earth, which had been set by the expedition to Pluto in 2124. No one mentioned that Lurton Zimbaro had probably set the actual new record, and no one seemed bothered about it.

All nineteen crewmembers gathered in the dining area. The chef, Nicholas Treadgold, and his assistant, Evelyn Forrester, had prepared a marvelous repast. Freshly baked biscuits, blackened salmon, mashed potatoes, corn, fruit salad, and champagne were set out on the thick, white tablecloths. Everyone was in a good mood. Treadgold, who served as ship psychologist as well as chef, knew how to create a peaceful, encouraging atmosphere and help people to communicate in a friendly fashion.

He had been able to turn the mood of the four suspicious NME crewmen several times, but his work with them never lasted. As soon as they got together again, their dark, wary nature returned. The Captain had tried hard to keep them separated by giving them separate shifts, but in the confined atmosphere of the ship, permanent separation was impossible.

On this occasion, however, the company was in high spirits. Halfway through the meal, Captain Bors rose to praise Nicholas and Evelyn, and raise a toast to the success of the mission.

After he had sat down to a round of applause, there was a sudden, unexpected whirring sound, like a huge insect. People began to look around with apprehension on their faces. All at once a bright, compact contraption soared into the room from the stairwell and flew around the tables.

“Joe!” cried out Zip.



“What?” said Joe, turning to Zip with a wounded look. His hands were out of sight under the table.

“Joe!” repeated Mark. “It’s your ornithopter!”

“Why, so it is!” exclaimed Joe, with a look of surprise. “That rascal has become just too familiar with this ship, and it’s ruining this solemn occasion! Good discipline, that’s what it needs!” His hands appeared, manipulating the ornithopter’s control pad.

“*Somebody* needs good discipline!” said Captain Derf Bors. The ornithopter hovered next to Joe’s champagne glass. Joe reached out to take hold of the ornithopter and knocked his glass over into Mark’s lap. Everyone laughed—even Mark.

~

The stars like living silver filled the canopy of space through which the *Starventure* made its way. Mark was in the library, doing his research on the mission. In a moment of fatigue, he broke from his study on the computer and logged on to the shipboard observation ’scope. He set the coordinates for Earth and said, “Enter.” He saw only a field of stars, with the Sun a bright ball of flame just off the center of the screen.

“Hmmm. We’re way out,” he thought. Suddenly an immense feeling of loneliness coursed through him. “I can’t even see Home,” his mind wailed internally. His sensitive soul felt a deep pang. He couldn’t study any more. He needed to be with someone. He closed up and sought out Joe to talk with.

Others on the ship began to feel the loneliness as well. The morale on the ship was poor, and the crew was discouraged. There was still talk among the four that ‘they were on the ship that had tried to kill everyone aboard,’ and they muttered about the name of the secondary star: Nemesis.

“Who would ever name a star something like ‘Nemesis’?” was heard more than once. “Why, the very name means ‘Enemy’—the enemy that has your number! There’s none of us going to get back safely from this death-mission.”

There were morale-building talks, plenty of relaxation time,

good socializing, lots of good food, the occasional birthday party. Most of the crewmembers were glad to respond. But always in the background, there was a poison that couldn't be stopped. Negative energy was draining the vitality of the crew, and even those who maintained a good heart had to make a continuous effort to do so.

Still they traveled on into the deep darkness of space.

~

At last, the day began that would bring the *Starventure* to the new planet.

The captain's voice came over the intercom. "Starman Joe Taylor, please come to the bridge."

When Joe arrived, Captain Bors turned to him and said, "Joe, we'll arrive at the planet within an hour. I'd like you to take the helm and bring us in."

Joe was stunned. "Oh, no, sir! You've piloted us all this way! It's an historic moment. It should be yours!"

"Nonsense, Joe. You take the *Starventure* in. It'll help the crew, I think, to know that a Starman is in charge for the final approach. It's just a wise decision on behalf of the ship and its crew. I know that once we arrive, the Starmen will be in charge of the mission. No reason not to start a little early. Go ahead."

Joe was uncomfortable and elated at the same time. Hardly able to believe his good fortune, he sat down gingerly in the chair the Captain had vacated for him. With a surge of excitement, he began to read the instruments and prepared to lock onto the planet as soon as it was close enough.

Half an hour later, he said, "Ten minutes to orbital position, sir."

"Very good, Mr. Taylor. Please call the entire crew to the bridge."

"Yes sir!" Joe turned to the intercom. "Attention, all hands. Come to the bridge. The planet will be in orbiting distance in a few minutes." The men and women of the *Starventure's* historic

crew began to assemble.

The long journey was coming to an end. Pluto was about three and a half billion miles from Earth, and the new dwarf planet was more than two billion miles farther than that—but coming closer. Its figure-eight orbit around the brown dwarf star Nemesis made it unique in the Solar System.

Now the *Starventure* was close enough that the planet could be seen with the unaided eye. Everyone aboard was positioned at a window in the great cabin just behind the pilot's console to view the bi-stellar wanderer.

For moments no one said anything. The planet had been thoroughly described to all of them, but no scientific description, no matter how accurate, could have prepared them for the actuality.

"It looks as if it is made out of charcoal," whispered Joe finally.

"Or obsidian," contributed Mark in a subdued voice.

Before long, Joe brought the ship into a low orbit around the dwarf planet. Over 4,000 miles in diameter, it was everywhere foreboding, sapping the spirit out of whoever looked upon it. The Starmen themselves were depressed at the sight.

Only about 20% of the planet's surface was anything near smooth, and the smooth parts were scattered into many different, small areas. More than half the terrain was comprised of jagged planes of crystallized material, heaped together as if at random. The planet was covered with sharp points and razor-thin ridges, scarred with tortuous narrow canyons, and marked with pits and shadows—darkness upon darkness.

"Surface temperature?" asked Zip.

"Minus 342 degrees, just as Dr. O said," answered Mark. "As we expected, it has no atmosphere. Whatever atmosphere it has is frozen on the surface of the planet."

A man behind them choked. The fear in the room was palpable. There was no logical reason for it, but the Starmen wouldn't quibble with the crewmembers.

"I don't want to go down there," said another in a hushed

tone.

Now that the great ship had attained orbit, the time had come for Zip to announce the name of the planet. The name had been chosen months earlier by Dr. O who had discovered it, and therefore had the right to determine how it would be known throughout history.

Without any preamble, Zip retrieved the sealed envelope from the *Starventure's* safe. As he did so, the men gathered around him. He turned and faced the crew. Glancing into their faces, he could almost feel their apprehension.

"It's only a planet," he said, trying to sound normal. "It's just stone and ice such as we've seen in many other places of the Solar System." He tore open the envelope, unfolded the paper that was inside it, and stared at what Dr. O had written.

"Well?" asked Joe.

"The planet's name is Nyx. Dr. O named it after the Roman goddess of night."

"And somewhere down there we expect to find Lurton Zimbardo," declared Joe, more a statement than a question. He glanced almost casually out of the window again. Suddenly he stiffened. "What's that?" he exclaimed.

"What's what?" cried out Mark. Everyone rushed to the windows once again.

"I saw a glint, down there, just beyond that high ridge! It's gone now!"

"Check the video feed!" ordered Zip. Instantly the cabin was filled with excitement.

Zip ran to the primary video screen and ordered that the tape be re-run. Mark and Joe looked over his shoulder, with most of the crew huddled with them. Now that the *Starventure* was in orbit around the planet, Zip was in charge of the operation.

"There!" said Joe, as a pale glint appeared and disappeared. It was a mere sparkle in a field of almost complete blackness. The flash was so weak that if the surroundings had not been so dark it would not have been noticeable.

"Repeat at fifty power magnification!" ordered Zip. The

operator complied.

After examining the video again, Zip's brow furrowed. "Probably just a reflection of sunlight on a sheer plane of some kind, but let's investigate it. Send out a probe."

Within a minute, Frank Duncan, an electronic technician from Starlight Enterprise, had programmed and launched a robotic scanner-probe. It sped to the coordinates which Zip had provided. As it came into proximity of the site where the glint had been noticed, Zip directed the view its cameras were providing into the primary video screen in the bridge of the *Starventure*.

When the first picture came up, there was an immediate murmur from some of the crewmembers. One man swore and said, "Looks like a bunch of razor blades down there! Just what kind of a planet *is* this?" A rumble of assent followed this outburst. With a stern expression, Zip glanced briefly over his shoulder at the crowd, and then returned his attention to the image on the screen.

"Getting to the site of what we saw before, Mr. Foster," said the operator of the probe.

"Thank you," said Zip automatically, with his eyes fixed on the screen. Just looking at the terrain made him wince. It looked undeniably hostile, with mounds of jumbled ridges and sharp projections. Abundant white patches showed where the atmosphere was frozen to the ground.

Suddenly there was an outcry of panic from the crew behind him.

"Oh my gosh!" exclaimed Mark. Zip understood. The probe had revealed immense, artificial doors with a huge expanse of glass or crystal above them, resembling a skylight of some kind. Surrounding the doors was clear evidence of manufactured structures, built right into the side of a cliff. Towers and turrets surmounted massive, fortress-like walls that blended into the terrain.

"The glint we saw was a reflection from that huge window over the doors, sir!" said the technician.

“Looks as if *somebody* lives there!” said Joe. “Can you see the doorbell yet, Frank?”

## Chapter 11: Zimbardo’s Superiors

ZIP THOUGHT QUICKLY. “The Starmen will take one of the shuttlecraft down to get a closer look. While we are gone, Captain Bors will orbit the planet in the *Starventure*, take measurements, and create a map of its surface. We’ll radio when we’re ready to return to the mother ship.”

The muttering among the crew had stopped, but the tension in the cabin was unmistakable. Zip turned from the screen and scanned the assembly. Derf Bors greeted his glance with a decisive smile and others appeared ready to do what was asked of them. A number of crewmembers, however, avoided meeting Zip’s eyes. They looked sullen and uncomfortable. The tight lips of more than one gave evidence of resentfulness and growing contempt toward the Starman. Joe and Mark moved up to Zip and stood next to him in a posture of genial ease—yet clearly showed their support of the leader of Starlight Enterprise’s expedition.

Zip turned toward Captain Bors and said, almost casually, “Sir, would you help us to prepare a shuttlecraft? I’d like your advice on the best way to approach that city below.”

“Certainly, Mr. Foster,” the pilot replied. “Bronk,” he said, addressing the large man, “please supervise the orbiting maneuvers until I return. The rest of you, go to your stations and begin taking data.”

“Yes sir, Captain!” responded Dennis Bronk with a sudden show of enthusiasm. “You heard the Captain,” he boomed to the crew. “Let’s get moving!”

When the Starmen had gathered with Captain Bors next to one of the five-passenger shuttlecraft, Zip spoke frankly.

“Derf, there is a bad feeling aboard the ship. I don’t trust some of the crew. The four we’ve dealt with for a couple of

months now have been identified and we've tried to contain them, but in the tight quarters of the ship their influence has continued to spread. I'd very much like to take two shuttlecraft and a contingent of the SE personnel to reconnoiter down below, but I don't feel comfortable doing so. You may need the support of loyal crewmembers until everyone aboard the *Starventure* sees that there is nothing to fear about this dark planet. Then I think they'll feel pretty foolish.

"For right now, then, only Joe, Mark, and I will descend to the surface. I plan only a short stay—maybe only the time it takes you to complete two or three orbits. We'll get a quick overview of the city, and at the same time show the entire crew that there is nothing out of the ordinary down below."

"Very well, Zip," agreed the Captain. "I've seen this kind of tension aboard ship several times before. As you know, it's not uncommon, especially on long missions like this one. I'll get the crew busy collecting data. We'll drop a few probes and watch Nyx's profile take shape on our screens. Our first orbit should be completed soon and we'll be back over the city. I'll give you a few minutes warning so you can launch when you're ready."

"Good!" said Zip, and shook hands with the Captain. In less than a minute the Starmen were alone on the flight deck. Joe took the opportunity to make a suggestion.

"Zip—let's not paint ourselves into a corner. Let's pack some extra food, water, and oxygen into this little craft. Who knows what we'll really find down there, and who knows what'll happen aboard the *Starventure* while we're gone? Some of those men are pretty ugly, and I'm not convinced that keepin' 'em busy is all they'll need to put smiles on their faces."

"My thoughts exactly," agreed Zip. "Look for the best but prepare for the worst."

Twelve minutes later, the Starmen were seated in a fully loaded shuttlecraft. Derf Bors' voice came over the radio. "Optimal launch time in two minutes, Zip. You've got the coordinates on your navigational program. All is fine here. Good luck to you!"

At the designated time, the shuttlecraft sprang from the *Starventure* and began to descend.

"We won't go directly to the city," announced Zip as he sat at the helm. "We don't know who's down there and may be watching. If Lurton Zimbardo is on the planet, he's fully aware by now that he's got visitors."

Zip took the shuttlecraft on a sharp approach trajectory, dropping almost like a heavy stone. With the skill of an expert space pilot, he pulled the small ship out of its dive with precision tracking and plunged it into a narrow canyon. Keeping about a hundred yards from the surface, he wove the ship along the tortuous twists before them, hoping to avoid being traced by any watcher on Nyx who may have noted the shuttlecraft's launch. Occasionally he lifted the craft over the top of a ridge and dropped it down into an adjacent ravine.

Cold, fathomless depths of sky glimmered overhead, and near the tops of the ridges stars shone hard as flint.

"Am I the only one to think that this planet is beautiful?" asked Mark, after a long silence. "There's a fearful starkness about it, but I just don't sense the terror that is running wild through the crew. To me, there's a feeling of wonder, maybe even awe."

Joe mused for a moment, rubbing his chin as he stared out the window at what looked like tumbled shards of volcanic glass. "There's desolation here and I definitely feel very, very far away from Earth. Five billion miles is a distance that staggers me. But I don't feel afraid. I feel... well, rather excited, if you must know the truth!"

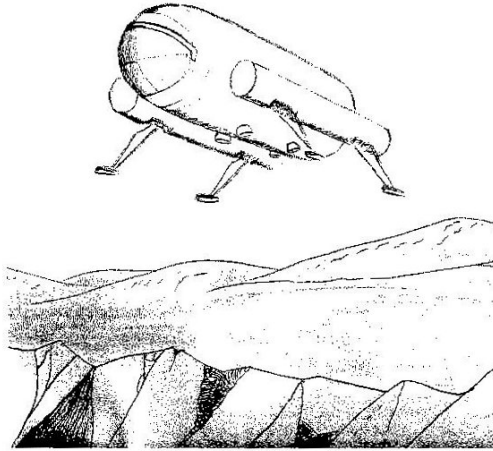
"Coming up on the city," cut in Zip. He had slowed the shuttlecraft down appreciably. Silently and slowly it skimmed close to the ragged surface. In a small side pocket of a gray gorge he set it down and cut the engine. There was utter silence.

For thirty seconds Zip said nothing. No one moved. Then the Starman leader ran both his hands through his thatch of red hair, took a deep breath, smiled, and said, "Helmets on! Let's go!"

With laser rifles in their hands, they left the shuttlecraft and



walked toward the end of the canyon that had been their trail for the last several minutes. Their feet ground on loose fragments of stone like shale but made no noise in the airless surroundings.



*Occasionally Zip lifted the craft over the top of a ridge.*

In the clefts there were drifts of frozen atmosphere, and their feet trod upon a gentle white dusting. Mark looked up and about him. He could imagine frosty winds coming down the canyon, scattering the snow in eddies. But around him now was perfect silence, and no movement of any kind except what the Starmen kicked up as they walked. No wind could move over the surface of this planet. No wind, no sound would ever be heard—except, perhaps, during the few years when Nyx would follow its strange orbit through the inner parts of the Solar System. Then it would warm up, its atmosphere would come to life, and winds might blow until the planet turned back toward the Nemesis star and its atmosphere would freeze again for another six thousand years.

“Here,” said Zip, interrupting Mark’s ruminations. With a quick motion of his hand Zip ordered Mark and Joe to drop

down. He crawled to the crown of a spur of stone that rose before them, and peeked over the top. He affixed a magnifying viewing system to the front of his faceplate and carefully scanned the terrain in front of him. Every once in a while he adjusted the settings and scanned the terrain again. He used infrared and ultraviolet settings in addition to the spectrum of visible light.

Five minutes went by.

“Nothing,” he reported at length. “No sign of life. No sign of movement. The doors we saw on the *Starventure* are about fifty feet tall and shut, but there are openings of normal size adjacent, both doors and windows. The big doors probably are for a hangar of some kind. Mark, you stay here and watch from the top of the rise. Joe and I will approach.”

“Right, Zip,” said Mark. He crawled to the top of the rise and lay flat with his laser rifle ready for action.

Zip and Joe moved to the side of the spur of stone and made a circuit, coming into full view of anyone inside the city. About two hundred feet of smooth plain stretched out before them, mottled with thin patches of powdered snow. Directly opposite, a sheer wall of gray stone and black glass reared up, with a few places where snow was gathered into pockets. Ranks of ledges and rows of narrow, slatted windows were built right into the natural terrain like ancient cliff dwellings. Squat towers came up from the highest level. At the bottom in the middle were the enormous doors, which could open out onto the plain.

The two Starmen separated without a word and began to walk warily toward the city, laser rifles held with both hands. They tried to avoid the patches of snow so that they would leave as few footprints as possible.

~

The *Starventure* was beginning its third orbit around the planet. Chef’s assistant Evelyn Forrester moved through the working quarters, bringing fresh coffee or hot tea to those who were engrossed in the process of data gathering. Captain Bors

took a mug from her with a grateful glance. The mugs were sealed on top, with only a narrow slit to allow the beverage to be drunk.

"Thanks, Ev!" said Dennis Bronk on the bridge as he reached for a mug. Evelyn moved on to the rest of the bridge crew, and then descended to the next level where technicians were hard at work at computer terminals, radio receivers, and monitors.

Captain Bors found himself nodding. He blinked and shook his head, but the figures on the screen in front of him wouldn't hold still. He wondered how he could be so tired until he heard Dennis Bronk moan. Bors quickly looked over at his assistant and saw the coffee mug roll out of his hand and begin to drift aimlessly through the weightless cabin. Bronk drooped forward, then with a sudden effort shot his head up and looked over at the Captain with desperate, pleading eyes wide open. Bors began to rise up, a sudden alarm coursing through his system and bringing his faculties up sharp again.

A hand pressed on his shoulder and pushed him back into his seat. With his head wobbling on his neck, Bors turned to look behind him. It was Saunders, smiling evilly, and holding a laser pistol in his right hand while his left rested gently but firmly on the Captain's shoulder.

"Some of us didn't drink any of that coffee or tea, Captain Bors," said the NME technician. "Those that didn't are in control of this ship now. You just relax. We'll run things now more to our liking." Saunders chuckled and patted the Captain on the shoulder. Then he nodded to another NME crewman who had a laser pistol in his hand.

"Contact Zimbardo," he ordered. "Tell him we're ready for orders. He's got to know we're here by now."

"Sure, Mike," responded the other. He went to the radio, altered the frequency away from that used to communicate with the shuttlecraft, and initiated his message.

"Lee Kerrel aboard the *Starventure*, calling Lurton Zimbardo," he began. "We've been sent to rescue you and—"

A piercing sound like a banshee filled the cabin, then rapidly

diminished in intensity to a low hum.

“What was that?” asked Kerrel, looking at Mike Saunders. Before Saunders could respond, a voice came over the radio speakers. It was a grim, harsh, deep voice, so inhuman as to be obviously generated by a computer. The very sound grated on the mind and compelled obedience.

“Go with the Xenobot spacecraft. Follow them to our base on the planet.”

There was complete silence on the bridge of the *Starventure*. No one moved. Then Kerrel spoke again.

“What was that?” he repeated, this time in a high, tremulous voice.

“How should I know, you fool?” The words came from Mike Saunders’ mouth as if they were being ground out. “It was probably Zimbardo’s way of telling us where he is and how to get to him!”

“What ships did he mean?”

“Look!” slurred Bronk loudly, lifting a limpid hand toward the pilot’s great window.

Four barrel-like spacecraft had zoomed into sight and were rapidly deploying to box in the *Starventure*.

“Where did Zimbardo get all those ships?” stammered Kerrel.

“Idiot!” sneered Saunders. “Those aren’t Zimbardo’s! I don’t know whose they are, but they’ve got us surrounded!”

There was a sudden *ping!* sound followed by a brief hiss that was cut off.

“Oww!” shouted Kerrel. “They’re shooting at us! Look at this!” He had jumped up in panic with the radio transmitter pad in his hand. He held it up and then released it as if it were hot, and stepped back away from the console.

Saunders strode over and grabbed it out of the air. A hole about an eighth of an inch across ran through the entire apparatus. Saunders looked at the great window and saw where an automatic patch had sealed a hole.

“A fine point laser,” he stated. He tracked the direction of the beam from the hole in the window through the point where

Kerrel had been holding the transmitter to a section of the floor. He knelt down and found another small hole where the laser beam had expended its energy. He stood up with a sober expression.

"We'll follow them in," he said, and sat down at the pilot's console. "It's four against one."

Nearly half an hour later, five ships landed in a large crater. Saunders brought the *Starventure* down between two of the squat ships that had accompanied them. The other two ships hovered nearby until the *Starventure* was secure, then they also landed. At one side of the crater was a large overhang that looked like the entrance to a cave. Underneath was impenetrable darkness.

At such close proximity, the people from Earth could see now that their captors' ships were about forty feet long and twenty feet in diameter. They were made of flat surfaces joined in a cylindrical shape; viewed from the end they would look like a hexagon. There were appendages that were probably robotic arms but at the moment were withdrawn; there were also several pods with windows. The top surface was completely transparent, and was most likely the command center of the ship.

"Everybody out!" ordered Saunders. With difficulty, the loyal members of the crew managed to put on their spacesuits. Their coordination was disrupted and they felt the need to sleep, but with painstaking attention to detail and determined concentration they finally secured their helmets. Some of the loyalists had not drunk the drugged beverages and were able to assist their shipmates. They made sure that each one had put on his spacesuit without missing any vital step.

"C'mon, let's see what's waiting for us out there," urged Saunders, herding everyone toward the airlock. When everyone was ready, he opened it. One by one, sixteen people descended the ladder and stepped out onto the surface of the dark planet.

When they had all reached the bottom, they huddled together at the base of the ladder, waiting for their captors to make the next move. Simultaneously, doors at the bottom of the four cylindrical ships opened up. More than two dozen creatures of

roughly humanoid shape disembarked and rapidly arranged themselves in a circle around the *Starventure* at a distance of about fifty yards. A few others slowly came into view from the shadow beneath the large overhang.

“Wh—, what are those things?” Kerrel cried out, his voice filled with hysteria and his eyes goggling. No one answered. The people from Earth crushed a little closer together so that everyone was touching and no one stood out.

When the creatures that had emerged from the cavernous opening had joined the circle, it began to close very slowly. Gradually the people from Earth discerned that the creatures were a little more than four feet tall, but their small size did not moderate the sense of dread that was growing in the humans. On the contrary, a feeling of menace grew appreciably as the creatures approached the huddled group of terrorized Earth people. Their captors walked on two legs like men, but there was ungainliness, a deliberation to their pace, and a suggestion of something mechanical in the way they moved.

Derf Bors fought the drug that had interrupted his coordination and thought processes. With a determined shake of his head, he pushed his way to the front of the crowd and stepped forward, facing the creatures that had come from the cavern’s mouth. As Bors stepped out, the circle of creatures stopped moving, but those whom he faced continued their approach. As they came closer, Bors squinted, turned slightly aside, shook his cottony head once again, and stared.

When he finally realized what he was seeing, his head cleared instantly. The rush of adrenaline that surged through him eradicated all effects of the drug that had been put into his coffee. He gasped and stared, unable to tear his eyes away from the phalanx of beings that was moving slowly but inexorably toward him.

They were humanoid in shape but with a horrifying mockery of what it meant to have a head, two arms, and two legs. Their legs were made of narrow tubes and rods and links, with ball joints at their knees that appeared able to move in any direction.

Their feet were made of close-fitting mesh over long, narrow, jointed tubes like bones, and had long toes that could clutch and grip.

Their arms were multi-jointed, comprised of several linked units connected by rods. Their hands had four overlong central fingers and two opposing thumbs, all made of metal sinews. Bors had no doubt that they were strong enough to rip open spacesuits and crush human limbs without effort.

Like the creatures' extremities, their torsos were a smudgy gray color, resembling badly tarnished silver, with highlights of cobalt blue. There were several vents that could open and close like fishes' gills, and a few crystalline portals through which he could see blue lights that brightened and dimmed in a slow pattern like breathing.

Bors saw all this in a matter of seconds. What drew his attention more than anything else was the creatures' heads. They were metal fully encased in clear crystal, with neither mouths nor noses nor ears, but with eyes that stared outward in a ghastly parody of seeing, like living eyes in a skull.

With a jolt of horror and revulsion, Bors realized that there was a living being of flesh inside each metal artifice, a being with only a head and torso, and that the eyes were the only visible part of the actual creature inside the metal casing. He had the impression that the eyes looked upon him haughtily and dismissively, expressing no feeling other than a curious enjoyment of his alarm.

The captain of the *Starventure* suddenly became aware of a chilling wailing noise, and with a prickly feeling up and down his spine, he recognized that it was the panicked shrieks and cries of the fear-crazed humans behind him.

The circle began to move in again, and the creature closest to Derf Bors reached out a hand with fingers like thick spiders' legs, opened to clutch at him.

## Chapter 12: The Last Pirates

THE CLIFF DWELLINGS had apparently been vacant for eons. Zip and Joe had arrived at the base of the cliff and found a human-sized door adjacent to the enormous doors they had first seen on the video screen aboard the *Starventure*.

“Just as I thought—no doorbell,” complained Joe. “So how are we going to get in?”

“Too bad we don’t have Jack and Jill with us,” commented Zip as he was running his fingers down the seam where the door joined the rock wall. “We’ll just have to use force, I suppose.” He removed his tool kit and began to assemble a torch.

Joe moved away from the base of the cliff and looked upward.

“What did you find?” came Mark’s voice over the communicator.

“Nothing at all yet,” answered Joe. “A door, no handle, no one to open it if we knock. Zip, is it okay if Mark comes down?”

“Guess so,” said Zip, putting the final touches onto the torch assembly. “But keep your guard up. We still don’t know where Zimbardo is and even though it doesn’t look like it, this place might be a prime candidate for his headquarters.”

Mark joined the other two Starmen. Zip knelt by the door. Before igniting the torch, he took out a small device with a gauge on it and a sharp needle pointing out one end. With a slight twist, he activated it. It pierced the door quickly and made a seal. Zip read the gauge.

“Vacuum,” he said. “That’s what I thought.”

He laid down the gauge and applied the torch to the door. Mark and Joe stood almost back to back, alert for any sign of movement. They kept their eyes moving over the ridges that protected the small plain upon which they were standing, and frequently surveyed the face of the city as well. Mark glanced down and noticed that Zip was making good progress with the torch. Its light cast the long shadows of the Starmen all the way across the plain. As Zip moved the torch, the shadows slid



incrementally across the featureless surface.

"Got it," announced Zip. He had cut a circle about three feet in diameter at the bottom of the door. He pushed the loose piece inside, stuck his head through, and shone a spotlight into the interior. "Passageway—an airlock, as one would expect. Let's go." He crawled through and stood up on the other side. Mark and Joe followed him. As they had done inside the Gorge on Titan, they activated the standard illumination in their suits, and thousands of tiny lights brightened the interior of the passage.

"If there's any atmosphere on the other side of that door, ..." began Joe, indicating the far side of the airlock.

"Right, Joe," said Zip before the gangly Starman could finish. "Let's seal the first door before we open the second one. I don't know what kind of atmosphere, if any, is on the other side, but I don't want us to be in this narrow passage if it surges out into the vacuum as soon as I pop this door." Zip went back to the first door to replace and cement the chunk he had cut out.

"Besides," Mark added, "if there are any gases in there, maybe we can adjust the mixture to make them breathable."

"Not likely," said Joe, "but worth keeping in mind."

"With your luck, Joe, there'll probably be an easy chair set before a fireplace, and a pot of Darjeeling tea waiting for you."

"Wouldn't be complete without a plate of my mom's homemade cookies."

"Never satisfied," said Mark, shaking his head.

"But easily pleased. I'll settle for the tea without the cookies."

Zip finished sealing the outer door and set about opening the second one. First he applied the atmosphere gauge to the door.

"Well, I'm surprised," he said. "There *is* an atmosphere on the other side. Very stale, apparently—the reading is hard to get—but it's got elements we're familiar with. Looks like the same ingredients as we saw on the pirates' asteroid, but something else as well—something I can't identify. The flame won't ignite it, at any rate."

He lit the torch and applied it to the door. A second after the

torch bit into the material, a blast of air shot into the corridor. As the space filled with atmosphere, the sound of a whine gradually became audible. It was the sound of air rushing through the opening Zip had made. In less than a minute, the airlock had filled with air, and the whine dropped to a blubber and then disappeared.

When he had completed the second opening, Zip pushed the round chunk into the darkness beyond and shone his spotlight through the hole.

"Nothing much to see in there yet," he announced. "Let's go in." He squirmed his way through the opening, followed immediately by Joe and Mark. On the other side of the door was a small room, with several doorways leading into it.

"Looks like a storage area of some kind," observed Zip.

"Probably for spacesuits, helmets, and the like," agreed Mark.

Joe strode over to the closest door and pulled on the handle. It opened without hesitation. As he stepped through, the light of his suit illuminated a great hall. Inside were consoles, cabinets, and screens of various kinds. The wall on the right was an enormous window with pale illumination coming through. Zip went to the window, and peered through it. Faint starlight shone through an enormous, slanted skylight at the top of the huge room.

"Nothing. Empty—but it was definitely a hangar of some kind. That skylight has to be what caught our attention when we were coming into orbit."

"Long abandoned," said Mark. "And not likely to be the hiding place of Lurton Zimbardo."

"We'll have to come back later and make a thorough search, but I think you're right, Mark," said Zip. "Let's get back to the shuttlecraft before Derf starts to worry about us. If this is not Zimbardo's refuge, exploring this site will be the responsibility of the team from NME anyway."

Zip Foster led the way back through the inner door of the airlock. "Mark, you go on back to the shuttlecraft and radio the

*Starventure*. Joe, you stand watch outside while I seal both these doors.”

“Sure, Zip,” the other two agreed.

Before too long, Joe and Zip had joined Mark at the shuttlecraft. Mark was on the radio.

“*Starventure*, come in. This is shuttlecraft one. Come in, please.” The big Starman turned to Zip and said, “No answer, Zip. Been trying for five minutes.”

“They’re probably on the other side of the planet,” suggested Joe. “They’ll be back in range before long.”

After forty-five minutes of sending without receiving any response, the Starmen looked at one another with anxious expressions.

“Now what do we do?” asked Joe.

~

The creatures herded the sixteen people from Earth through dark corridors in the interior of the crater wall. Many of the crewmembers were wailing and trembling, and had to be assisted by others. Derf Bors had a severe expression on his face, but was treading without hesitation where he was being led.

The creatures that accompanied them had made no response to gesture or voice. They may as well have been the machines that they looked.

At last, the group stopped at a doorway that had evidently been turned into the first portal of an airlock. They passed through it into a small room. One of the creatures shut the outer door and then operated controls that effected the change of air. The inner door was then opened, and they came into a large room. Dim lights shone from sconces in walls and recessed places in the ceiling. Derf Bors peered inside.

“Earthmen!” he gasped. A creature’s rigid arm compelled him to enter. The other fifteen members of the *Starventure* crew followed.

Derf looked around the room. It was a stark cell about

twenty-five feet square. Six men were lying on the floor. As the newcomers entered, five of them got to their feet. Their hair hung over their ears and each had a beard at least an inch long. The newcomers removed their helmets.

“Men!” the cell’s inhabitants cried out. “Human beings! Earth people!” Several of them began to sob. All five approached members of the *Starventure*’s crew and pawed them, looking eagerly into their faces and going from person to person, searching for some kind of recognition.

Their inhuman captors did not remain long in the cell. Once the crew of the *Starventure* had entered the room and removed their helmets, the creatures retreated. As they moved, a squishing, slithering noise came from inside their bodies. The sound made Bors feel like retching.

“I’m so glad to see another face,” wept one of the men in the cell.

When the intensity of the moment had passed a little, Derf Bors stated, “You must be Lurton Zimbardo and his men.”

“That’s Zimbardo there,” said one of the five bearded men, pointing to the one who had not gotten up. Bors looked at the sixth man. He was as long-haired, unwashed, and bearded as the rest, but there was no expression on his face. His eyes searched the crowd. When he saw that he was the center of attention, he attempted to smile, but only achieved a lopsided, almost comical, grimace.

“What’s wrong with him?” asked Dennis Bronk.

“He used to do all the talking, but he hasn’t talked much at all for about a month,” said one of the bearded men, with a disgusted tone. “Just nonsense once in a while.”

The speaker faced Derf Bors. “I’m Gerald Poppy,” he said. “And that’s Graham Slant, that’s Bernard Withers, Tony Stagnum, and over there is Maury Gebbeth. We’ve been prisoners here for a long time. I don’t know how long. Long enough to grow these beards.”

“What are those creatures?”

“Those are the Xenobots. Lurton Zimbardo thought they

were his friends, he did!”

“Who are the Xenobots?”

“I don’t rightly know, but they’ve got some sort of mining operation on this planet. There’s plenty of Helium-3 here. They use robots to dig it up in huge quantities, keep it frozen, and take it away in those ugly barrel-ships they’ve got out there. Those faces are enough to stop anybody’s heart, ain’t they? Look like something that’s dead but don’t know it yet, I say.”

“They are mollusks—completely utilitarian, thinking mollusks,” said a firm voice from the corner. It was Mr. Gebbeth. “We thought they were robots at first, but after a while Zimbardo told us that they were living beings. They must come from some warm, foul, swamp-like planet.”

“Those bodies they have,” added Tony Stagnum, “those metallic skins—that’s not natural to those monsters, but they live in them like a shell! They’re not really spacesuits, but the metal covering allows them to live in different environments. They’re all wired in there or something and couldn’t get out now if they wanted to!”

“Mollusks, I said,” contributed Gebbeth. “Thinking mollusks. Not feeling, though. They have instincts, maybe. But no feelings. Don’t even know what feelings are.”

“Might as well try to tell a man without eyes what ‘color’ is,” contributed Bernard Withers.

Gerald Poppy spoke again. “They have no heart, no imagination, nothing beyond getting the job done, ’s far’s I can tell. Gives me the shudders when I think how close I came to bein’ like them.”

“They come from very far away,” contributed Slant. “They feed us chemicals, not food. Always the same. Completely nourishing. No by-products. These things only talk through computers and only in their control room. Nobody from here has been in that room for weeks now. We don’t know why we’re still being kept alive. They used to talk to Zimbardo a lot. Before we got here, he used to keep everything to himself, but once we got stuck in this room, he told us everything he knew. But then he

stopped putting sentences together.”

“How did Zimbardo get connected with them?” asked Bors.

“These things made some kind of foray into the Asteroid Belt a few years ago,” answered Withers. “They kept out of sight, but they watched what people were doing and eventually contacted a few of the independents. Only by radio. They made big promises, overwhelming promises, to exchange riches, power, and knowledge for being their spies! Showed they could keep their promises, too!”

Poppy continued. “Zimbardo here couldn’t do enough for them! Did everything they asked—at least until he failed to provide the access codes to Earth’s defenses! Then he came here to ask for their help directly. Took us all the way out to this frozen hell with a promise of big rewards. You’re looking at the reward!” he added with a snort.

“So who are you?” asked Tony Stagnum.

Bors began to tell them.

~

“Let’s cruise around a bit and see if we can find anything,” suggested Joe, who was uncomfortable with inaction.

“Okay. We’ll take her up for a short jaunt,” agreed Zip, who was inclined the same way. Zip lifted the shuttlecraft directly up from the side pocket in the canyon where he had hidden the ship. When it had just cleared the top of the ridge, he began to make lazy circles around the abandoned base in the cliff.

“No sign of anything unusual,” said Mark after about half an hour. “No ship, no habitation. I don’t mind admitting I’m getting a little anxious. It’s a small planet, but still way too big for us to search alone.”

“You’re right,” said Zip. “Let’s get back to the cliff and see if there’s anything in that abandoned base we can use.”

“Looks like a big clearing over there,” pointed out Joe. “Off to the right, over that line of razorbacks, see? Let’s cruise over that way. It would be an inviting landing place for just about any ship.” Zip changed course and headed in the direction Joe had

indicated. He brought the shuttlecraft carefully between two jagged teeth in the ridge that formed the border of a large crater.

“Zip!!” shouted Mark suddenly, startling the red-headed Starman. “Look!” Mark was pointing to the far side of the crater and off to the left.

“There’s the *Starventure*!” Joe yelled, “—and some other ships!”

Zip’s eyes narrowed and his brow furrowed. His thoughts raced. The *Starventure* was supposed to be in orbit. There was no reason for it to land, especially without communicating with the Starmen. A sense of danger made the hairs on the back of his neck prickle. He immediately raised and turned the ship and sped back over the crater wall.

“I’ll bet we’ve found Zimbardo!” shouted Joe. He sounded almost happy. “But what were those other ships? That’s not how Zimbardo got to Nyx! He only had one ship, and that was a standard model! I’ve never seen any ships like those four before!”

“You’re about to see ’em again,” said Zip, “because here comes one!” Zip had kept a lookout in back of them and saw that one of the squat alien ships had just lifted over the top of the ridge and was coming after the shuttlecraft.

“I’ve seen them before,” said Mark, with fear in his voice.

“Where have *you* seen them?” asked Zip, bringing the shuttlecraft into a steep dive and entering a narrow gully.

“On the pirates’ asteroid, when I saw the two aliens discussing Zimbardo and flipping through files on the large computer screen. They were frightened by the image of a spacecraft. That ship after us right now is the reality!”

## Chapter 13: Discoveries Made in Secret

THE SHUTTLECRAFT zoomed down into the warren of ravines that were typical of the monstrous landscape in that portion of Nyx. Twisted pillars of black glass and upthrust plates of sheer

stone the color of smoke were evidence of a planetary surface racked and tortured by cataclysms of unimaginable violence. But now the drear and tumbled landscape was serene and silent under the blaze of stars that showed the galactic plane.

Zip's expert piloting kept the small craft close to the terrain of the dark, airless world. Puddles of frozen atmosphere lay in the hollows, pale gray in the starlight. No one spoke. Zip's eyes were intent, and he flew as if by both sight and instinct.

"Ah!" he said quietly and confidently, and whisked the small craft into a gaping, black chasm that dropped down from the floor of the ravine he was following.

"Aaaahh!" echoed Mark and Joe, but in shocked fear rather than confidence. Both strained up from their seats but were held in place by the safety straps.

"What're you doin', Zip!?" shouted Joe. The ship's lights had come on automatically in the dimness of the passage, and Zip quickly slowed the ship down almost to a stop. The Starmen lurched forward at the sudden deceleration, then sat back hard when the shuttlecraft eased to the floor. Zip shut off the propulsive power.

"Hiding," answered Zip. "That big ship can't follow us here, and I'm hoping it doesn't have any small craft that can. If we're lucky, they won't know where we are at all."

"And if we're unlucky, we're trapped," contributed Mark with a hint of irritation.

The darkness around them was not complete. The chasm, a deep canyon within a canyon, was open to the sky in many places, and the feeble light of the cosmos filtered through.

"Switch to the RRFC system," said Zip. SE had developed the RRFC system, or "rapid random frequency change system", for the compads Starmen used. It encrypted their messages, sped them up to one hundred times normal, and sent them on a preset but unique seed frequency pattern that changed a million times in a minute. Compads could be set to the same pattern so that their users could talk to each other, but no one else could follow the pattern.



When the Starmen used the RRFC system they could communicate with one another without fear of being overheard but could no longer attempt to contact Derf Bors or his crew. To do so would be to take a high risk that their enemies could locate them by tracking their communications.

Zip activated the radar. Almost immediately he saw a green blip that showed the position of the pursuing ship. The red-haired Starman exhaled with relief.

"They don't know where we are," he said. "They're way off the path." All three Starmen watched the radar screen.

"Moving at random," observed Joe. "A random pattern without getting too far away from the crater."

"Now what?" asked Mark.

"We put our heads together," answered Zip. "What do we know? What can we find out? What can we surmise?"

"What do we know?" We know that we're stuck here!" said Joe with animation. "The *Starventure* is back inside that crater with four ships of a design that Mark says scares the woollies out of the people who made the pirates' asteroid with science far beyond our own! And one of those ships is looking for us right now! I'd say we've been in a few better places before this!"

"Zip," said Mark, "can you get into the *Starventure's* computers? Maybe you can check the communications archives and find out what happened after we left the ship."

Even as Mark was speaking, Zip was creating the link to the mother ship. In less than two minutes he had found the archive of the bridge's communications. He heard the final exchange between Derf Bors and the shuttlecraft. Nothing followed until an unexpected voice came through.

"Lee Kerrel aboard the *Starventure*, calling Lurton Zimbardo. We've been sent to rescue you and—" Shrieking static came through the channel. Then a bass, artificial voice filled the cabin of the shuttlecraft.

"Go with the Xenobot spacecraft. Follow them to our base on the planet."

The Starmen looked at one another with expressions of

confusion and apprehension. Joe pointed to the controls and nodded. Zip replayed the words, then played them a third time. There was no other communication after that one.

“Kerrel and probably others took over the ship,” said Zip. “In league with Zimbardo. And then they were guided to the crater where these ‘Xenobots’ are. Zimbardo apparently has some powerful friends.”

“What are Xenobots?” asked Mark.

“Dunno. Never heard of them,” said Zip.

“Well, the word means something like ‘robotic alien’,” said Mark. “‘Xenos’ is Greek for ‘stranger’ or ‘alien’, and the ‘bot’ part has to come from ‘robot’.”

“Can’t wait to see what these things look like,” contributed Joe. “With a name like that, they’re probably just machines—robots of some kind.”

“I doubt it,” said Zip. “I think we’ve found the enemies of our alien friends. What we know for sure now is that the *Starventure* and its crew are in the custody of Zimbardo and the Xenobots. Five men came out with Zimbardo, and it’s likely that at least those four on the *Starventure* have joined him—maybe more than that. And the rest of the crew is in custody. We don’t know anything about these Xenobots. I think we need more information. Let’s take a look at what the researchers were able to discover about this planet before the *Starventure* was taken over.”

Zip searched through various files in the *Starventure*’s data-gathering programs, and eventually found the one that had been used to begin to create a map of Nyx’s topography from the flyovers. Three heads craned over the shuttlecraft’s computer screen to see what the SE researchers aboard the *Starventure* had managed to save before the mutiny.

“Fortunately, they started gathering data from the point they dropped us off,” said Zip. “That means that the terrain around here is in the file.” Zip brought up a landscape file that showed the topography of their surroundings. “Here’s the crater where the *Starventure* is now,” he said, pointing toward an identifiable

portion on the screen. "And over here is the abandoned base."

Mark said, "Looks as if they're only about four miles apart. I wonder if there's a connection between them."

"Let's see," responded Zip. He altered the program so that it showed underground passages. The surface terrain faded into faint lines and indicators showing the placement of tunnels came up.

"Wow!" exclaimed Joe. "Look at that!" Two extensive systems of maze-like tunnels came onto the screen. One began at the site of the crater, with a large and well-organized floor plan. A massive entrance was built into the side of the crater. A central passage flanked by many rooms led farther into the ridges beyond and below, then spread into many tunnels in almost a haphazard pattern.

The other system of tunnels began at the site of the abandoned base. The large hangar was evident, and it was surrounded by many levels of rooms in a compact area. Leading away from several rooms were many tunnels that extended deep into the land, up to two hundred yards beneath the surface of the planet.

"Do any of the tunnels connect?" asked Joe.

"No. Doesn't look like it," said Zip after a moment's careful investigation. "But look. It's pretty clear that the tunnels from the abandoned base were built first. Their pattern is rather systematic. The tunnels that come from the crater are cut *around* the first pattern, obviously avoiding contact."

"It looks as though they're mining something," suggested Mark. "Check the spectrographic data."

Zip grunted assent and brought up another file. Various colors were highlighted on the screen, showing where several deposits of elements and compounds were situated. "Iron, silicon, ..." intoned Zip. "The usual stuff—but look at all this dark yellow banding. You see what it is?"

"Helium-3," said Joe, leaning forward. "Just as Dr. O said. Lots of Helium-3 out here. And we're sitting on a huge deposit of it."

"The people who built the base mined it first, then left it for

some reason. And now Zimbardo and his friends are mining it from the other side.”

“But Helium-3 is only found on the surface of planets. What’s it doing so deeply imbedded?” asked Mark.

“Dr. Parfitt could tell us that, I’m sure,” answered Zip. “But I’d guess that there was some cataclysm on this planet that buried it. It’s still not too far from the surface and not too hard to mine.”

“I wonder why Zimbardo is mining the stuff,” pondered Joe, “and why he isn’t just taking over the original mines. Looks clear that he’s trying real hard not to touch any of the original mining tunnels.”

“Finding the answers to all that is secondary right now to capturing Zimbardo,” said Zip. “That’s still our original mission. Now we’ve got to rescue the loyal crewmembers too. And this chart gives me an idea about how to do it.”

Joe and Mark looked at him expectantly. “We’ve got to go back to the abandoned base. Using this chart we’ll find the point where the two mining systems are closest together, and then we’ll cut through the rock into Zimbardo’s system and come in from behind.”

“Could work,” observed Joe with a shrug. “But going in blind could make it a real adventure for everybody!”

“I’ve got an idea about that too, Joe. Your ornithopter gave me an inspiration. We’ll send an ornithopter in first.” Joe’s eyebrows shot up. Mark nodded with a sudden knowing smile.

“A miniature reconnaissance machine!” he exclaimed. “And we’ve got the equipment to make one!”

“A telemetrical audio system and a tiny video camera from the console in the shuttle,” contributed Joe, getting the drift of the conversation.

“A laser from one of our pistols,” added Zip, “and power for propulsion provided by the battery from my compad.”

“Basic construction materials, I hope, can be found back in the city, and we’ve got the tool kit here on the shuttlecraft.”

Zip leaned up to the screen and brought up the map of the

tunnels once again. "Let's see...where's the best place to enter?" He scoured the map carefully, and then pointed to one spot and said, "Here. There's only about ten feet of wall between the passages. The one on Zimbardo's side looks like a side pocket, so we can hope that it will not be populated. And the one on our side narrows at the other end so we can devise a makeshift airlock." He leaned back and turned to face his companions. "What do you think?"

Thirty seconds went by without Mark or Joe saying anything. They were turning Zip's plan over in their minds, looking for flaws. Then Joe turned to Mark and lifted his eyebrows. Mark nodded.

"Let's do it," affirmed Joe.

"We'll have to leave the shuttlecraft here and walk to the base," said Zip. "The Xenobots' ship can find us if we fly."

"Check the radar," suggested Mark, with a lift of his chin.

Zip cut off contact with the *Starventure* and returned the screen to the radar function. Three green blips were cruising the locale now. "We're definitely walking," he said.

The Starmen's suits had a locator and orientation function. Each of them marked their suits' programs with the location of the shuttlecraft, the abandoned base, and the landing site in the crater. They didn't have the capability to follow the map that was stored in the *Starventure's* data files, but they would always know where they were in relation to the three sites.

They took a modest meal in the shuttlecraft, renewed their air supply, and packed extra food, water, and air. "Enough for about two days," ordered Zip. "If we haven't rendered the base habitable for us by that time, we'll have to come back here for more supplies."

With laser rifles in their hands and supply packs and air tanks on their backs, they left the shuttlecraft and began to walk forward along the floor of the chasm. Before long it narrowed and dropped even deeper, becoming a crevasse. A barely-discernible ledge followed along one side, with occasional outcroppings of stone and pits they could use for handholds.

Progress was slow, but they could see an opening ahead of them.

It took almost an hour to travel a hundred yards, but then the walls on either side of them spread apart and the landscape opened up. A high ridge rose to the right a few yards away, but on the left the land dropped away. The next row of jumbled planes, spires, and razor-sharp stone was a quarter of a mile away. The plain before them was twisted with hollows and whorls, as if a cauldron of boiling, bubbling stone had been quick-frozen. In the low pockets were deposits of light gray snow. In a few places it sparkled as a flake or facet of frozen air captured the light of a distant star.

"Titan was beautiful in its own way," said Mark after a long silence, "but this place has its own charm."

"'Charm', he says," answered Joe.

The Starmen were profoundly, almost disturbingly, aware of the total silence. Their boots struck shards of rock and slipped and scraped on the smooth volcanic glass, but there was no sound. All they could hear was each other's breathing. Every atom of air and moisture was frozen to the planet in purifying, unimaginable cold.

"There's the sun," pointed out Mark. Zip and Joe looked at him to see where he was pointing, then followed his gesture. Across the obsidian field in front of them was a star, only slightly larger and brighter than the ones that were scattered above and around them. As the Starmen progressed, they encountered iron ridges of frozen air that scored the terrain, looking almost as if they were sand that had been shaped by the gentle waves of an ocean or a gentle summer breeze—formations unchanged for 6,000 years.

Through Zip's mind, images of his family quickly passed. Unexpectedly he remembered the scent of his sister's hair as he sat next to her in Armstrong Forest. His eyes became moist. He blinked and shook his head since he couldn't wipe his eyes through his helmet. With an effort he pressed down the rush of emotion that had filled his heart, and brought himself back to the present.

Then, just for a moment, he pictured Kristina Bethany in her yellow wheelchair, bringing him water on the day they had met. The wan light of the far distant sun suddenly became a brilliant sparkle in her laughing eyes. He felt she was somehow with him on Nyx, thinking of him back on Titan, waiting for word from him when the mission was over.

With sudden determination, he knew that the Starmen would succeed in their mission. An inrush of confidence filled him. He glanced down at the small screen on his left forearm, and checked his team's location.

"We're not far from the base, men. We're approaching from a different direction. It should be right over this ridge ahead, with the great doors on our right."

The plain they were crossing narrowed down to a ledge. On their right a wall went upward, smooth and unscalable. To their left, the cliff slanted more and more steeply. Two hundred yards farther it became a narrow outcropping, almost completely gone in places where it twisted around bulges in the wall. The Starmen turned toward the wall and inched their way sideways with their arms stretched out above their heads and gripping the path with their toes. Below them was a drop of several hundred feet into shadowed dimness. Their boots scraped the wall.

"Gets better ahead," announced Zip, who was in the lead. The path disappeared as the wall bulged out into a rolling hillock. Zip lay flat down upon it and moved like a crab over the mound. When he came to the crest, he peered over the top. He could see the field in front of the abandoned base, with the great doors barely visible on his right. One of them was open.

Stationed in the field was a Xenobot spacecraft.

## Chapter 14: A Mechanical Dragonfly

EVEN AS HE WATCHED, flame shot from the bottom of the craft and it lifted slowly off the plain. Within seconds, the squat spacecraft rose above the jagged hills and moved away from the

watching Starman.

“What’s takin’ so long, Zip? D’you see the base?” Joe’s voice came through Zip’s communication system.

“Yeah, it’s there,” answered Zip distractedly.

“Something wrong?”

“I don’t know. One of the Xenobot ships was there, but it just took off.”

“We’re coming up.”

Zip grunted his assent and waited for his companions. He kept scanning the terrain in front of him, but saw no movement. Joe and Mark slid next to him on either side.

“What were they doing?” asked Mark.

“I don’t know. I didn’t see anyone. The ship took off just as I got here. But look— one of the great doors is open.”

“Think they use it as a base of some kind?” wondered Joe.

“No—no one had been in there for ages,” said Zip. “It was long abandoned. The Xenobots’ base is back in the crater. I think they were looking for us. We weren’t there, so they left to continue their search.”

“Makes sense,” agreed Mark. “Wonder if they saw our footprints or found the door you cut open.”

“The ship was using an ion drive. Look, you can see where it melted the snow. We didn’t leave too many footprints and their landing fire obliterated what was there. My guess is that they just opened the door to the hangar, peeked in to see if our shuttlecraft was there, and then took off when they didn’t find it.”

“Shall we go down?” Joe asked.

After a slight pause, Zip said, “Mark and I will go down. If we find the place empty, Joe, you go back and get the shuttlecraft and bring it here. Since they’ve already checked this place and didn’t find us, that hangar just may be the safest place to hide. Besides, we’ll need parts from the craft to build our little spy ornithopter.”

Joe pointed his laser rifle over the top of the mound. “I’ll wait for your signal, Zip. Let me know when you’re safe down there and I’ll have the shuttlecraft through that door faster than



you can say ‘Lurton Zimbardo’.”

Mark and Zip climbed over the top of the mound and skirted the field, keeping to the right as they approached the great doors. When they arrived at the gap that the Xenobots had made when they had opened one of the enormous portals, Zip leaped across the barrier, his rifle at the ready. The hangar was empty.

“Okay, Joe,” he said. “No one here. Bring the ship back, and meet us inside.”

“All right, Zip. I’m on my way.”

~

About two hours later, the *Starventure*’s shuttlecraft was inside the hangar, placed behind the unopened great door out of sight of any outside observer. The three Starmen had passed through an airlock that connected the hangar with the interior of the base, and were gathered in a workshop adjacent to the hangar. Benches, cabinets, storage areas, and a number of large pieces of machinery filled the room. Most of the cabinets and closets were empty.

Mark had gained access to the *Starventure*’s files once again, and printed out the map of the excavations. He had spread it out across one of the work tables, and the Starmen were poring over it. Zip pointed a gloved finger at the diagram of the base and the tunnels that radiated outward into the range of mountains into which the base was built.

“Mark, you explore this place while Joe and I work on the spy ornithopter. Take a quick tour of the whole facility, but be sure you investigate this passage here.” His finger ran along one of the excavated corridors that cut deeply into the mountain, then stopped at a certain point. He tapped it a couple of times. “Right here, in this little chamber, is where we’ll cut our connection into the Xenobot base.”

“Right, Zip.” Mark took the map and left the workshop through a door opposite to that which gave access to the airlock into the hangar.

“Well, let’s get busy,” Zip said to Joe. They returned to the shuttlecraft and removed a tool kit.

“I’ll strip the shuttlecraft of the equipment we need while you get a start on the ornithopter,” said Zip. He drew the craft’s atmosphere into one of its storage tanks so he could keep the hatch open. That way he and Joe could pass tools to one another and continue to converse through their suits’ compads.

“We oughta call it a dragonfly, Zip,” suggested Joe. “It won’t hover like the ’thopter I left in the *Starventure*. This one’ll have to be able to move fast, turn on a dime, and stick to a wall or ceiling without movement. A dragonfly design’ll work best.”

“You know what you need, Joe—I’ll just be your assistant. Tell me what you want me to do.”

“Take out one of the microvideo cameras and the telemetric audio transceiver. I’ll open up the back end here and see what I can find to use for the framework.”

The two Starmen worked silently for nearly half an hour. Zip turned on the craft’s interior light, jammed himself under the console, and painstakingly began to remove the equipment that Joe had asked for. Joe, outside the craft, had opened several inspection panels at the rear and worked to remove lightweight rods and thin wires from nonessential areas of the control system.

“Zip,” Joe called out at one point. “Take out the circuit board for that video system, too. There’s some stuff on it I can use.”

“Sure, Joe,” said Zip, his voice strained from the awkward position he was in. “I’m sure glad I don’t suffer from claustrophobia. When it’s time to get back to the workshop, I’m gonna need you to pull me out of here!”

“I’ve got what I need now. You need any help?” Joe moved over to the side of the shuttlecraft and peered through the open door. Zip’s feet were on the seat with the toes pointed upward, and his body was hidden under the bulk of the craft’s control panel.

“Nope—think I’ve about got it. I can pull the circuit board out in a minute. The other equipment is on the floor. You see it?”

“Yeah, good. That stuff’s smaller than I thought. Even better.”

“Okay, here’s the circuit board.” Zip’s hand reached out from under the console and waggled the small piece of plastic around for Joe to see. Shiny threadlike strips of metal glowed in the ship’s dim light. Joe took it from Zip’s hand, and Zip began to wriggle out from under the console.

Back in the workshop, Joe laid out the materials he and Zip had scavenged from the *Starventure*’s shuttlecraft, and then began to assemble the frame of the dragonfly. Joe had his laser pistol on the table, ready to be disassembled when he needed to place a laser at the mouth of the dragonfly.

“Anything else I can do?” asked Zip.

“I only need one more thing, and that’s material for the wings—something very thin, lightweight, and strong. I don’t need it right away, but without it, this dragonfly’s grounded.”

“I’ll look around.” Joe didn’t look up as Zip left the room. He was already engrossed in connecting the video and audio components of the project to the circuit board.

~

“Mark, where are you?” Zip tried to raise Mark as soon as he left Joe.

“Just coming back from the chamber, Zip. It’s a little more than a mile away. Thought I’d look that over first before going through the base. The little pocket looks ideal for what we need to do, and the passageway there is clear and easy. Still a lot of Helium-3 here.”

Zip filled Mark in on the progress with the dragonfly.

Before long, the two Starmen met and set out to explore the abandoned base while Joe built the dragonfly. They turned down the range of their compads. Joe, with his compad at full range, could still contact them any time he wanted, but they could converse without disturbing Joe.

Zip and Mark located dormitories, assembly halls, kitchens, and dining areas—all long unoccupied. One section of the base

was clearly set apart for work. Heavy machinery, consoles, control panels and computer screens were packed into various rooms with an admirable design for beauty as well as function.

"Any luck yet in finding me some material for my dragonfly's wings?" came the voice of Joe Taylor.

"Not yet, Joe," answered Zip, turning up the range of his compad. "We're finding a lot of equipment and other material up here, but nothing that looks as though it'll provide what you need."

"Keep on it. I'm not building a centerpiece for our dinner table here!"

"We're still looking!"

Mark and Zip continued their search. Leaving one set of connected rooms, they entered a long corridor. Double doors led off on one side, spaced about a dozen yards from each other.

"Hmm. Looks like recreation areas of some kind," mused Zip as he and Mark passed through one set of doors. The lights from their suits cast bright illumination into the corners of a large hall with low tables and chairs set almost haphazardly around as if for casual conversation. A large screen against one wall, otherwise lined with cabinets and low counters, looked like a theater of some kind. Sofas were placed casually in front of it.

The two Starmen left that room and went farther down the corridor. They passed a larger gap between doors than usual, then a large double door appeared. On it was the three-moon symbol they had seen on Mars and on Titan.

"Beautiful," said Mark as he and Zip paused before the doors. "Not too surprising, is it, Zip?"

"No, I can't say I'm surprised. This place just has the feel of the Titanians' Benefactors."

"I've had the feeling since I started exploring this place that I was somehow back inside the pirates' asteroid. Built by the same people."

"Let's see what's on the other side of this door," said Zip, drawing the door open. A short corridor led to another set of double doors. Zip pulled on the handle of one of the doors, and

both moved outward on their own power.

“Hey!” exclaimed Mark as the lights on their suits were suddenly dimmed and then extinguished. The room opened onto inky darkness. All at once, a gloomy forest spread out before them. Light, silver mist hung moistly in streamers through leafy branches and around the boles of trees. A pale illumination came from somewhere ahead of them, backlighting the trunks and lower branches of the trees, and the shrubbery that covered the ground.

“How can this be?” asked Mark with amazement sounding in his voice. “These can’t be living here! A forest inside a mountain? Incredible!” He referred to the map he was carrying. “Can’t see it. Too dark in here.” He stepped out into the corridor and the lights on his suit went on again. Zip looked over his shoulder.

“We’re right here,” said Mark, his red-gloved finger pointing to a spot on the diagram. “This room can’t be more than ten or twenty yards square! There can’t be an entire forest in there!”

“Let’s explore it,” said Zip. “I’m going back inside.”

“I’ll stand just outside at the point where my suit lights remain on, and track your progress, if I can,” said Mark.

Zip opened the doors again and walked in. Once again, his suit lights were extinguished and the forest appeared out of the darkness. He stepped boldly forward, reaching out for the nearest tree.

“Tree’s real enough,” he reported to Mark. “I can feel its texture.” He reached up for a branch, drew it toward him, and pulled a leaf off of it. As soon as the leaf was detached from the branch, it disappeared.

“Whoo!” he cried out. “It disappeared! The leaf disappeared as soon as I pulled it off the branch!” Zip looked back at the branch and saw that the leaf he had removed was back in place. He reached up again and pulled it off. Again it disappeared in his hand and reappeared on the branch.

“It’s a hologram!” blurted out Mark. “The whole thing is a hologram!” He ran into the room. His suit lights went out as

soon as he crossed into the forested space. He smacked into the trunk of a tree and stopped short.

"Oww!" he cried out, stunned.

"You okay?" called out Zip, stepping up next to his partner.

"Wow! Yes, I'm okay," said Mark. "I was so sure it was a hologram!"

"It is," affirmed Zip. "I'm sure it is. You're right—but it's not like anything we've ever seen. It's got substance of some kind, but only semi-solid, and only under certain conditions."

"It's got substance, all right—I can testify to that!"

Just then the forest lightened up appreciably, as if the sun had suddenly come out from behind clouds. Sunbeams came through openings in the leaves and the mist began to dissipate. Mark suddenly experienced a feeling of awe.

"Zip!" he breathed. "Have you seen these leaves before? I have."

Zip smiled and nodded. "On the ships we found on the pirates' asteroid. The leafy design on their hulls is the same as the leaves of these trees."

"This must be a scene from their home planet. *Gosh*, it's beautiful!"

"When the Benefactors needed a break, they must have come in here if they wanted a view of home."

"Quite different from the climate outside, isn't it?" observed Mark wryly. "Looks as if the holographic program shuts down any exterior light source whenever someone comes in here—even independent light sources like ours!"

"You two found any material for me yet?" came Joe's voice again, with a ring of impatience. "Another hour's work here and I'll be almost done."

"Sorry, Joe!" said Zip, turning up the range of his compad. He told Joe about the chamber of holograms and the three-moon logo they had found, and added that he and Mark would continue their search for the material Joe needed to enable the dragonfly to take to the air.

The two Starmen left the chamber of holograms and tried the

room next to it. It was filled with consoles, control panels, screens, and gauges. Several chairs were arranged before keyboards.

"This is clearly a control center," observed Mark. "I wonder if this room controls the holograms."

"Maybe so. Let's find out later. Joe needs that material for the dragonfly's wings."

"I've got an idea about that. Let's go back to the shuttlecraft. We can use the material from the seats."

"That's too thick and heavy."

"We can cut a patch out and peel off the inside layer. There's a thin layer of plastic there as an insulation between the comfortable material we sit on and the padding beneath. Extends the life of the pad while allowing the cover material to flex."

"Think it'll be thin enough?"

"It stretches. I think it'll be suitable."

Mark's idea worked. The material was clear, thin, tough, and flexible. He and Zip stretched it tight over the framework of wings Joe had cemented together, and Joe glued it into place.

The finished product was three to four inches long, and resembled a small bi-plane. Two grain-of-wheat light bulbs were in front like eyes, below which were two lenses—one was the laser and the other was the video camera. On the bottom was a small grid for audio exchanges. At the back was a small compartment for a battery.

"I used two servomotors connected up with this remote control here, Zip," said Joe. "They came from small jets on the bottom of the shuttlecraft. If we have to fly the crate again our landings may not be as soft as our delicate constitutions are used to, but we can still fly it. We can even see out of one side, too, since we left one of the video cameras in place!"

"Is the dragonfly ready?"

"I just need to connect the power supply. I pulled that from the shuttlecraft too. It's the one that keeps the popcorn maker working!"

"Where did it really come from?"

"I had to disable the automatic locator. If we have to fly that box again, we won't know where we are, but I figured that's better than taking one of our compad batteries. We don't know what we'll find on the other side of that wall, and I don't like the idea of one of us being deaf and dumb. We can always switch batteries if we need to fly the shuttlecraft again."

"What frequency is the remote transmitting on?"

"The RRFC system. Nobody's going to locate us or the dragonfly."

"Okay Joe. Power the thing up and we'll get started."

"Won't take but a minute to add the power supply, but don't you think we ought to see what time they're serving dinner around here before we get busy?"

Zip checked the time. "Sure. We can use a break. It'll feel good to get our helmets off."

Joe connected the power supply and then reached for the remote control. "Contact!" he yelled. "Stand back!" The dragonfly lifted off the workbench and hovered like a hummingbird, then zoomed forward. Joe caused it to stop suddenly in midair, then veer off to one side. He brought it up to the ceiling and made it stick there without moving.

"How'd you do that?" asked Mark.

"Suction cup on top. It attaches and then the servomotor draws out a little air. Simple."

"Amazing."

"Yup," agreed Joe. "Truly amazing. Doesn't even need food. But I do."

The Starmen went down to the shuttlecraft. Once they had shut themselves inside, Zip released the atmosphere from the holding tank. They removed their helmets with a sigh of relief. They rubbed their hands all over their faces and ran their fingers through their hair.

"Man! That feels good!" said Joe loudly. "I haven't been able to rub my eyes or scratch my head for about ten hours!" The others agreed.

When the meal was over, Zip summed up the plan.



“Mark and I’ll take the dragonfly to the side pocket of the passage of the Benefactors’ mine, seal up the small end and open a small burrow into the other system. You’ll stay here, Joe, and control the dragonfly. What it sees will appear on the shuttlecraft’s screen. Once we know the dragonfly’s working, we’ll get back here.”

Half an hour later, Mark and Zip were in the mine’s side pocket. While Zip began to excavate a tube about two feet in diameter through the mine wall, Mark sealed up the narrow entrance of the pocket. With his laser on high power, he cut slabs out of the mine wall, laid them into the aperture, and sealed them in place. When he had the entrance completely covered, he checked it for leaks, sealing any that he found. When all the leaks had been sealed, he told Zip he could break through into the other side at any time.

Zip had been carefully vaporizing the rock in front of him, stopping frequently to take measurements. He didn’t want to break into the other system too soon, or find any unexpected pockets of dangerous gas. The possibility of that was minuscule, but Zip didn’t like to take unnecessary chances.

With Mark’s announcement, Zip took another measurement.

“Six inches to go,” he muttered. The passageway he had cut was just over eight feet long, and narrowed significantly at the far end. “I’ll crawl in there and try the atmosphere tester. Be ready to pull me out, Mark. It’s too narrow for me to get out alone—get out quickly, anyway.” He squeezed himself into the opening. In one hand he held the small gauge he had used earlier that day, stretched out before him.

“Just slide me in, Mark,” he said. The big Starman carefully pressed Zip into the constricted passageway, eventually pushing on the bottom of his boots.

“That’s good,” said Zip.

“How are you doin’, Zip?” asked Joe.

“No problems yet,” Zip answered. “In a moment we’ll know what the atmosphere’s like on the other side of the wall.” He activated the sharp needle on the atmosphere gauge and pierced

it through the wall. Then he withdrew it. When the needle came out, the gauge squirted a substance that sealed the opening.

"Pull me out, Mark," he said. Mark pulled on Zip's boots and drew him out of the opening.

"Whew," said Zip. "That's the second time today I'm glad I'm not claustrophobic!" He glanced at the gauge on the atmosphere tester. "Well, what do you know? It's not an earth atmosphere! I kind of expected it would be, if this is Zimbardo's operation!"

"What is it? What kind of atmosphere?" asked Joe.

"A mixture of methane, nitrogen, oxygen, and carbon dioxide mostly," said Zip. "A little higher pressure than what we breathe."

"Kind of like what you'd expect over a bubbling swamp!" said Joe.

"Probably the Xenobots' atmosphere," suggested Mark. "Remember we don't know for sure that Zimbardo's in there."

"We know the crew of the *Starventure* is in there!"

"Let's hope they're not breathing that stuff! Let's get the dragonfly in there and find out what's on the other side!"

Zip carefully vaporized the last little bit of the tunnel he had made. First he made a tiny hole and let the atmospheres mingle. The other side was completely dark. Then he expanded the hole until it was large enough for the dragonfly to enter.

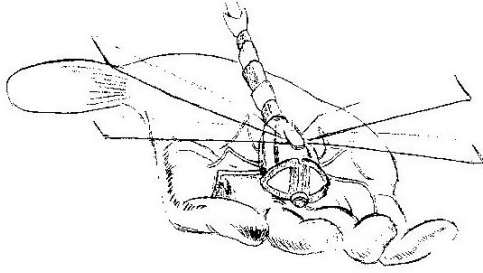
"Ready, Joe?" he said.

"Put 'er through," came the voice from the shuttlecraft.

Mark handed Zip the dragonfly and Zip crawled a little way back into the cramped passage—just far enough to drop the dragonfly into the darkness.

"It's all yours, Joe," he said.

He crawled back out. Then he and Mark peered into the tunnel Zip had cut, and saw a faint light shine into the space beyond as Joe activated the dragonfly.



*Mark handed Zip the dragonfly.*

## Chapter 15: Utterly Alien

CAPTAIN DERF BORS sat quietly, lethargically slumped against the wall of the cell. Pure air came through a small vent near the top of one wall, and a low-level light source in the center of the ceiling made it possible for the twenty-two human prisoners to see.

There had been a lot of talking in the first few hours of their captivity, but for the past hour or two no one had said anything. The crew's resentment against Mike Saunders and his mutineers, the pirates' mixed response to seeing other human beings who had been sent to place them under arrest, Bors' attempt to maintain some semblance of order, had all faded to insignificance under the pall of the humans' joint captivity and powerlessness under the control of the Xenobots. Their common enemy and shared fate brought about an unspoken truce.

Once during that time a supply of tubes had dropped out of a vent in one wall.

"Food," said Poppy. "Same stuff, three times a day. You open up the end and squeeze the contents out. It's a brown paste that contains everything you need to stay alive, even water. You'll never be hungry here, but you'll never be satisfied either."

Bors glanced at the small computer screen on the inside of

his left forearm, and noted that he and the rest of the crew of the *Starventure* had been in the cell for almost eight hours. A low vacuum sound came through the door.

"Somebody coming," said Poppy. Apprehension filled Bors, and he felt his pulse speed up. He looked up as the door opened. Three Xenobots stepped into the room. Bors shuddered involuntarily when he looked into the soulless eyes. A mechanical voice spoke.

"Zimbardo come. New leader come."

"Put on your helmet, Captain," announced Poppy. "You're going to meet the head mollusk! Nothing to be afraid of—he'll just want to get acquainted with his new guests, I imagine." He went over to Lurton Zimbardo and helped him to his feet.

"You want me to go with you, Captain?" asked Dennis Bronk.

"Yes, Dennis. Yes, I would, thanks," said Bors. He and Bronk put on their helmets. Tony Stagnum and Poppy put Zimbardo's helmet on him. Zimbardo shuffled his way to the waiting Xenobots, and Bors and Bronk joined him. The Xenobots turned and left the cell with the three humans following. They paused in the airlock as the air was changed to that which the Xenobots breathed, then proceeded when the outer door opened.

They retraced their steps almost back to the main entrance of the Xenobots' compound, but turned off into a side room before reaching the outer doors. A half dozen Xenobots stood in a group in the center of a chamber that had been carved out of the stone of the planet. Several pieces of electronic equipment were scattered at the edges of the room, but there was nothing like furniture—no table or chairs, nothing that could conjure any feeling of familiarity to the humans.

*This is beyond foreign, thought Derf Bors. This is utterly alien. I'm facing alien beings, but I can feel in my heart that there cannot ever be any real communication between us. We have nothing in common. I share more with a squirrel or even a pine tree of Earth, than I can possibly ever share with these*

*thinking beings.*

His heart quailed, but he stood erect, and kept his head up.

One of the Xenobots herded the three humans over to a bank of machines against one wall. Several loose wires came out of a box. The Xenobot picked up a wire and connected it to Bors' suit, fastening it, apparently at random, on his right arm. The metallic creature did the same with Bronk and Zimbardo.

"Zimbardo." The name burst abruptly into Bors' ears—a mechanical, artificial sound. Zimbardo stiffed with a jerk when his name was spoken.

"Who these humans?" came the mechanical voice.

"Humans?" said Lurton Zimbardo. "They came to find me, came to capture me and take me back to Earth." He laughed. His laugh sounded like puffs of air going through a narrow tube. "But they will not capture me. The Superiors will stop them. The Xenobots—"

The computer's voice spoke again. "New leader."

Bors could not tell which of the metallic creatures was speaking. Bronk, he noticed, was staring at the vile faces with a horrified expression, as if he had been put under a spell.

"You not our ancient enemy. You look like ancient enemy, but you from Earth."

The Captain did not know what to say, or even if he was expected to say anything. He hesitated, but no one else spoke. Drawing from a deep wellspring of courage, he said firmly, "I do not know your ancient enemy. We are from Earth. This man, Zimbardo, is a criminal. I have come to take him to Earth. I will take him and his men, and my crew and I will take him away from you and go back to Earth."

There was a long silence. Bors wondered if the computer were translating what he had said. Then the artificial voice spoke again.

"Xenobots seek ancient enemy. Xenobots attack Earth soon. Seek access codes to Earth's strong weapons."

Bors and Bronk stepped back as if struck in the face. "But we are not your 'ancient enemy'! I don't know your ancient

enemy!” Bors shouted.

“Doesn’t matter,” smirked Zimbardo. “The Xenobots are powerful enough to do anything they want. They are going to pulverize your precious blue and green planet sooner or later. There’s nothing you can do to stop them. They’ll act when they’re ready. When that happens, this planet we’re on now will be the safest place you can be!”

Bronk turned with a vicious fury. “You hairy little scum!” he shouted. The blond giant gripped Zimbardo by his upper arms, picked him up, and threw him aside. Zimbardo’s flailing body caught two of the Xenobots and sent them flying against the wall. The three of them crumpled, and a few small items fell upon them.

“Bronk!” shouted Derf Bors, reaching out for his crewman.

“Heh, heh, heh,” chuckled the voice of the one-time pirate leader, lying on his side amid a tumble of fallen equipment.

Bronk turned quickly, trying to pick out which of the Xenobots was the leader.

“Bronk!” shouted Bors again. “Don’t!”

The blond man reached out for the closest Xenobot. There was a flash of some kind of light from the individual Bronk was approaching. Bronk cried out and stepped back, waving his arms frantically, as if he were caught in a swarm of hornets.

“Get ’em off me, get ’em off me!” Bronk shouted.

“Dennis! Dennis, what is it?” Bors cried out. He took the man’s left arm and turned him to one side so that they were facing one another. With a shock, Bors noticed that Bronk’s suit had been scored by a dozen tiny holes. He looked closely at one.

“Needle lasers!” he exclaimed. “It’s like you’ve been hit with a laser shotgun!”

“What is it? What is it?” shouted Bronk, his voice ringing with panic.

“Heh, heh, heh,” repeated Lurton Zimbardo from the floor.

“It’s all right,” Bors assured him. “You got hit with a scattering of needle lasers. Your suit’s sealed the openings. We’ll get you fixed up when we get back to the others.”

“Heh, heh, heh.”

“Where is shuttlecraft?” The metallic voice came again. Whichever Xenobot was the leader had waited patiently until the commotion had died down before speaking.

“What?” shouted Bors impatiently, turning away from Bronk and scanning the Xenobots quickly, trying to see if he could tell by looking which one was addressing him.

“Where is shuttlecraft?” repeated the voice.

“I don’t know! It went to explore the planet before you captured us! I don’t know where it is!” The question sent a wave of relief through Bors. It implied that the Xenobots hadn’t found the Starmen.

For nearly a minute nothing happened. No one moved. Bronk continued to whimper in quiet tones. “Ooh, man! Oh man! Oooohh,” he moaned.

Then one of the Xenobots removed the wires from the three humans. Zimbardo was pulled to his feet, and the humans were escorted back to their cell.

~

Joe was in the pilot’s seat in the shuttlecraft. Zip and Mark craned their necks to see the screen as Joe manipulated the remote control. Mark had the diagram of the Xenobots’ base on a board in front of him, and was making notes, marking down details of what the dragonfly was seeing.

The *Starventure*’s scan had merely shown where there were open spaces under the ground, as well as their relative sizes and shapes. Mark had covered the map with writing, and noted the position of the mine tunnel, the lab, the equipment storage areas, and other rooms. The dragonfly had not yet penetrated to the compound which was likely to be more densely populated. Joe didn’t want to risk having the dragonfly spotted until it had made at least a cursory tour of the facility.

Joe moved the dragonfly speedily whenever it went down an empty straightaway, but kept it close to the ceiling and moving very slowly whenever it came to a corner or a bend in a passage.

Several passageways came together at a point not far from what appeared to be the center of operations. The dragonfly had explored several of these passages and then returned to the confluence.

The Starmen had already seen a few Xenobots as the aliens made their way down a passage or worked at some sort of task. The dragonfly had not picked up any out-of-the-ordinary sounds, not even any alien language.

"Very quiet place," observed Joe after nearly an hour had gone by. "Those metal boys give me the *willies*. These are the creatures the Benefactors are so afraid of? I wonder what it is that makes them so frightening—besides their repellant looks, that is."

"I hope we never find out," said Zip.

"Shall we try the more populated areas now, boys?" asked Joe. "How much of the deeper areas have we covered, Mark?"

"Not all of it by any means, but enough to know what it's like in there."

"I've gotten used to these controls now," said Joe, "and I feel pretty confident I can keep the dragonfly on a tight rein."

"Let's go find our crew," said Zip.

Joe directed the dragonfly down the main passage. It hovered close to the ceiling and moved forward incrementally. Whenever a Xenobot came into sight, Joe adhered the dragonfly to the ceiling. The dragonfly could not see behind itself, so the Starmen had to take the chance that no one would come from behind and spot it.

All at once, a small group appeared on the screen.

"Look!" exclaimed Mark.

"What's that?" said Zip at the same time.

About six people had rounded a corner and were now walking down the passage in the direction of the dragonfly. Before they passed the dragonfly, they came to a door and stopped.

"Humans and Xenobots!" enthused Joe. "We've found somebody! The one on the right looks big enough to be Bronk!"



As the door opened, Joe zoomed the dragonfly through it.

“An airlock,” observed Mark. All three Starmen looked intently at the shuttlecraft’s screen. After a brief wait, they saw the far door open. The three humans walked into the dimly lit room beyond, and the dragonfly carefully followed. Joe guided it through the door, then made it turn sharply left and take an unobtrusive position in a corner. The suction cup took hold of the ceiling. Once it was securely fastened, Joe pivoted the dragonfly and directed its camera to the interior of the room. The huddled figures of several human beings appeared on the screen. As they watched, several stood up and approached the three who had just entered the room.

“There they are! There they are!” muttered Zip with determination.

## Chapter 16: The Enemy Takes the Initiative

“ARE THEY ALONE? Are the humans alone?” asked Mark eagerly.

“Looks like it!” said Zip. “Scan the whole cell, Joe! Let’s see what’s in there!”

From its vantage point in the dark upper corner, the camera on the dragonfly slowly scanned the entire room.

“Looks as if they’re all there,” observed Joe. “Hard to tell, though, with everyone crowding up like that.” The men who had returned were surrounded by most of the prisoners, all clamoring to learn what had happened to them. Expressions of concern were raised when it became clear that Dennis Bronk had been wounded. Derf Bors was waving people off and easing Bronk to the floor.

“Bring the medical kit!” commanded the Captain of the *Starventure*, addressing Aaron Gold, the ship’s physician.

The Starmen watched and listened as Dr. Gold treated Bronk’s burns. When the tension had subsided somewhat and it was clear that the giant from NME was not seriously injured, Zip

asked Joe for the microphone that was connected to the dragonfly.

"Captain Bors," he said into the microphone. "This is David Foster." Everyone in the cell froze, then began to look around for the source of the Starman's voice. A low hubbub arose and people began to speak to one another, expressing amazement at the voice.

"Quiet!" ordered the Captain, lifting his hands up. When the room was silent, he spoke again. "I can hear you, Zip. Go ahead!"

"Joe and Mark are with me in the base—it's abandoned, and we'll tell you more about it later. Joe made a device that allows us to see you and communicate. It followed you into your cell when the Xenobots brought you here. It's in the corner of the room to your left."

With everyone else, the Captain's eyes sought to probe the dimness of the upper reaches of the room. Joe blinked the tiny lights on the dragonfly.

"Got it!" said the Captain, and then hushed the group once again as the crewmembers began to talk.

"Bring me up to date," said Zip. Bors succinctly but completely told the Starmen about the mutiny aboard the *Starventure*, its capture by four Xenobot ships, their incarceration in the crater complex with Lurton Zimbardo and his companions, and the interview with the Xenobot leader. In turn, Zip filled Bors in on the Starmen's exploits since he had launched the shuttlecraft from the *Starventure*.

Then Zip thought for a moment. "It looks as if the Xenobots are mining Helium-3, but their broader mission is to locate their 'ancient enemy'. This enemy has got to be the race that was benefactor to the Titanians—the people who built the pirates' asteroid and also built this base."

"Sounds right to me, Zip, but right now I'm more concerned with getting out of here. According to Zimbardo's men, we're in no danger of running out of food or oxygen, unless the Xenobots decide they have no more reasons for keeping us alive. You may

be free right now, but you've only got a day or two's worth of air and food. You've got to break us out of here and get us back onto the *Starventure* and safely out of the custody of these slug-faces—with our prisoners!"

"Well, we're not going to be able to do that by force, that's for sure!" said Zip. "Let me work on it with Joe and Mark, and you think about it too. We'll be back in contact before too long."

"Right, Zip! Be careful!"

Joe shut down the dragonfly's circuits. He exhaled loudly. "Tall order, Zip!"

"The holograms," said Mark. "Let's see what we can do with the holograms."

"Got an idea, Mark?" asked Zip, his eyebrows raised.

"Maybe. Putting one together. Let's go to the control center while I think. Ideas are flowing in pretty fast."

The Starmen put on their helmets and exited the shuttlecraft. They crossed the great hangar, went through the airlock, and headed for the hologram room. Mark took the map he had marked and shoved it into Zip's hands. "Let me think, Zip. You get us back to the holograms."

As they walked, Mark threw out some ideas.

"We've walked into somebody else's fight," he said. "The Xenobots are looking for their ancient enemy, but we don't know what they were fighting about. We believe that the Xenobots' enemies are the Titanians' benefactors, and our benefactors too. We can even assume that we've seen them—or at least I have, if the two aliens I saw on the pirates' asteroid are of that race, and they're the people who helped us escape from Zimbardo."

"Sounds right to me," affirmed Zip. "Keep going." As they walked, the interior lights of the base came on.

"We don't know what the Xenobots' capabilities are, but there are only four ships here. Their operation is mostly mining, not exploration or waging war. They outnumber and outgun us, but suppose we can make them believe that the aliens we call the Benefactors are here in force. I want to go through the computer files and the hologram controls and see what I can find."

Joe shrugged. "That's the plan?"

"Bluff," said Zip, "if Mark can find the right information and learn how to use it. He's the best qualified, since he did all the research on the files he lifted from the asteroid."

"Sounds good to me," said Joe.

"Here's the room where the holograms are," said Zip.

"Wait'll you see this, Joe!" enthused Mark, and he led Joe through the door where the Benefactors' forest was located.

~

Twelve Xenobots were assembled in the room where the interview with Derf Bors and the others had taken place. On the planet they had called home for uncounted ages, they communicated with words. Once they developed a metallic exoskeleton, they altered their ability to communicate to electronic means. They did not use a language with words or grammar, but direct communication allowed them to exchange images and concepts. The only evidence that important information was being shared was a higher level of animation than was usual among the metal-hulled creatures.

A vigorous exchange was taking place now. The atmospheric maintenance system had alerted a technician that a foreign element had entered their airspace. Its presence was a matter of grave concern and alarm to the Xenobots.

To prevent the Xenobots from entering their base, the Benefactors had coated the floors, walls, and ceilings with a material that was harmless to themselves but was corrosive to the metallic exoskeletons of the Xenobots. Over the ages since the base had been abandoned, traces of this material had radiated into its atmosphere. For this reason the Xenobots avoided entering the abandoned base. They could tolerate contact with the material for a few hours with little sustained damage, but long exposure caused severe, life-threatening decay.

Although the Xenobots could devise suits that would have allowed them to enter and live inside the base, it was more

convenient and more practical to mine the Helium-3 from the opposite side of the range that contained it, and simply avoid contact with the mining tunnels the Benefactors had operated. The Benefactors' mines were long and deep, and the remaining Helium-3 deposits were more easily accessible from the opposite side of the range.

However, slight traces of the toxic material had now been detected within the Xenobots' own base! The Xenobots could not know that it had entered their system when Zip had opened the wall between the two mining operations to release the dragonfly. The small amount of atmosphere in the chamber from which he had operated had entered the Xenobots' mining tunnels and quickly become suffused throughout their complex. It was so small an amount that it could do no damage to the Xenobots; however, their atmosphere maintenance system could detect the intrusion and raise the alarm.

The Xenobot leaders were addressing the matter. They noted that the amount of the foreign element was harmless and not increasing. They concluded that it was most likely caused by an inadvertent leak in the walls that separated the two mining operations. Nevertheless, it raised the specter of some deliberate action on the part of the humans who had not yet been apprehended.

The Xenobot leader was reminded that the hangar of the abandoned base had already been investigated, and the shuttlecraft had not been found there. There was no other place in the base large enough to contain it. The leader responded that the shuttlecraft had not been found anywhere else, and there was no other conceivable place within hundreds of miles where it could be concealed. He dispatched a crew to investigate the mine shafts for leaks and he sent two ships to investigate the abandoned base a second time.

Mark had entered the control center adjacent to the room where the holographic forest was located. He had learned that there was a tiny amount of power that was constantly being drawn upon.

“Seems to be maintaining the atmosphere in here for some reason. Maybe the people who left expected to be back before too long.”

“Sure took a lot of their equipment, though,” observed Zip. “Looks to me like a long-term evacuation.”

“Makes sense too, Zip, but for whatever reason, the atmosphere here is being maintained. With a little time, I can probably alter it to make it breathable for us—won’t take too much effort, except that I don’t recognize at all that extra ingredient in there.”

“Hold off on that for a while, much as I’d like to be able to remove my helmet. Work on the holograms first.”

Mark increased the power drain and brought the computers up to operating speed. He began to open various files. Joe and Zip watched him and took notes as he provided information to them.

“This symbol here must mean something like ‘atmosphere’,” said Mark. “It’s the one that’s drawing the power.” Joe wrote down the symbol carefully in a notebook and marked it “atmosphere”. Mark kept looking.

Some time later, Mark exclaimed, “Here it is! Look at this!” On the screen an image of the forest came up. Files for various parameters were connected to the image. Mark continued to explore. After a moment he smiled, and said, “Watch this! Joe, would you stand up in the center of the room please?” Joe did so.

Suddenly an image of Joe appeared next to him. “Hey! Terrific!” said Joe. He reached out to the image of himself. His hands passed through the image. “How’d you do that?”

“Took a picture of you once you stood up, then duplicated it in the holographic program.”

“Terrific,” repeated Joe. “Just like the holograms we’re used to!”

“There’s more here,” said Mark. He looked intently at the screen. “Zip,” he said after a moment, “touch the holographic Joe.”

Zip reached out a hand and touched the image. This time it

was solid.

"Hang onto it," said Zip. Zip gripped the image's arm. Gradually its substance became less and less solid. It appeared to move from the solidity of a real arm, to one made of foam rubber, to soapsuds, and then to insubstantial light. Then the image faded and disappeared altogether.

"Impressive, Mark!" said Zip.

"Give me a minute and I'll show you something even better." His hands flicked over the keypad in front of him. About ten minutes later, Mark announced, "Now watch."

An image of Zip appeared, followed immediately by the image of Joe.

"Great!" said Zip.

"That's not it," said Mark. "Watch this!" He pressed a button, and then sat back. The two images gradually morphed into alien shapes. Zip and Joe could feel the hairs on the backs of their necks prickle.

"The Benefactors!" breathed Joe. "Gotta be!"

"Yes," said Mark. "The Benefactors. Those are the beings I saw on the pirates' asteroid. No doubt about it now. This place and the asteroid are the work of the same people. There are plenty of files in here with those humanoid images in them. And I can just about create as many holographic images of them as I need to. A little more practice and I'll have it down. I can't make them move yet, but I will."

~

In the crater several miles away, about two dozen Xenobots poured out of the primary doors that gave access from their landing area on the crater floor to the interior of their complex. They surged past the *Tartarus*, Lurton Zimbardo's ship that had been brought under cover of the enormous overhang, and entered two of their own squat ships. They lifted off and headed in a westerly direction, toward the site of the abandoned base. The Xenobot ships separated from one another so they could make the approach from opposite directions.

The Xenobots, in constant communication with each other and their own control center, noted that there was a measurable increase in the power drain inside the base. One ship landed on the plain in front of the façade of windows and doors, and the other hovered above. A lackluster glow of light came through several of the tall, narrow windows high above the plain. About ten Xenobots debarked from the ship on the ground and came through the hangar. They reported that the elusive shuttlecraft was hidden inside—a fact that was no surprise to the Xenobots. Each creature carried a weapon of indeterminate operation, but whose appearance was undeniably fearsome.

The second ship landed next to the first, and disgorged another ten figures. The mottled smoky gray and dark blue shapes were nearly invisible in the shadowed dimness. An arm of the Milky Way stretched over the serrated tops of the nearest ridge, creating a glow that produced a slight contrast between the inky blackness of the planet's sleek surface and the deep darkness of the starlit features of the doors and windows of the abandoned base.

The ash-colored spacecraft of the enemy sat silently and unmoving, their crews now within the hangar. The Xenobots moved toward the airlock that would give the twenty, heavily-armed creatures access to the interior of the base. Two of them remained on guard by the shuttlecraft, weapons at the ready.

~

Inside the base, the Starmen looked at one another with tense expressions. There was no mistaking the sounds of landing spacecraft.

"We must've tripped something! They know we're here!" said Zip.

"Can you locate them, Mark?" asked Joe, leaning over the chair where Mark sat, his eyes glued to the screen.

"Not as quickly as we need, I'm sure," said Mark. "I whipped through a lot of files to find the holographic files, but I



don't recall seeing anything that would allow me to see inside the facility."

"We don't have time to look at random," said Zip. "Mark, you keep looking and Joe and I'll try to find out where they are and what they're doing!"

"Okay, Zip! Good luck," answered Mark.

Joe and Zip hefted their laser rifles, went into the corridor, and shut the door behind them. They moved gingerly down the hallway that led toward the hangar. Neither spoke, but both were remembering that the creatures they were about the face were feared by the race they now called the Benefactors. If the Benefactors, so advanced technologically beyond human capabilities, dreaded an encounter with the Xenobots, what chance could two Earthmen have against them?

The Starmen came to the end of the corridor and turned to the left. As they moved quietly down the passageway, they came to a long stretch of floor-to-ceiling windows. Zip came to the first window and peered through it, keeping himself concealed behind the frame. He had a view of a huge hall at least two stories high, with its floor about fifteen feet below him.

As he watched, doors opposite him at the ground level burst open violently, and a large group of Xenobots swelled through. Each had a rectangular light on its chest, spreading illumination in a wide arc. All of them carried weapons that were silhouetted in front of the lights. Zip could see a line of small, bright red lights along each monstrous instrument.

Zip's heart sank within him. "There are too many of them," he thought. Aloud, he said, "Joe, they're all down there. Looks like almost a couple of dozen of them."

Joe dropped to all fours and peered through the window at about the level of Zip's knees. Then other lights drew his gaze. "They're not all down there, Zip."

"What do you mean?" asked the Starman leader.

"Look straight across."

Zip raised his eyes and looked on the opposite side of the huge hall. Directly across was another glassed-in corridor. It was

filled with dusky figures, each holding a weapon. Pale golden light glinted from the exterior of their suits.

"We are totally outnumbered, outgunned, and outclassed," said Zip dully.

## Chapter 17: Buried Alive!

JOE NUDGED ZIP. "I'm not so sure you're right, Zip," he said quietly.

"Hmnh?" muttered Zip, his eyes frozen to the shadowy warriors directly opposite. "What do you mean?"

"Look."

Zip looked down where Joe was kneeling. As he moved his head, out of the corner of his left eye he glimpsed a glint of yellow light. He turned his head to the left. A crowd of silent, unmoving, pale golden warriors stood in the corridor, each holding a powerful-looking rifle. Badly startled, Zip leaped backward, tripping over Joe and falling onto his back. His laser rifle skidded away. He expected to be light-speared at any second.

"Zip! It's all right!" said Joe urgently. "They're ours! Now there are more of us than there are of them!"

"What?" said Zip distantly, scrambling to his feet and grabbing his rifle.

"They're Mark's holograms! Holographic soldiers! Man, they look like the real thing!" Joe said admiringly. "They look like those aliens Mark said he saw on the asteroid!"

"Like 'em, huh?" Mark's voice came over the communicators.

"Mark, you scared me out of my shoes!" blurted Zip.

"I'm still learning how to use this program, but they're not bad! What's happening with the intruders?"

Zip and Joe moved back to the window again. Just as they began to peer around the edge, the glass shattered under extreme violence! The two Starmen leaped backward and fell to the floor.

The plate glass exploded into hundreds of thousands of tiny shards that filled the corridor like a sandstorm in a desert. Visibility dropped almost to nothing. The sound overwhelmed the Starmen, and the concussion threw them against the opposite wall, where they were instantly covered with tiny pieces of flying glass!

In the dust of the glass in the air, they could see the bright red beams of many powerful lasers savaging every visible portion of the balcony, sweeping back and forth, missing nothing. The windows were completely demolished, and the framework was ripped to its structural beams. The wall opposite the windows showed more space than substance, and smoked heavily. The window frames and the back wall smoldered in several places.

Nearly panicked with the fury of the Xenobots' offensive, Zip and Joe rolled over and over, removing themselves from the proximity of the onslaught. The laser beams disappeared. The hallway was filled with glass dust and smoke from the vaporized fabric of the corridor. Here and there pieces of melting and broken material fell with a clunk. The Starmen could hear the walls sizzling in the resultant heat. Quickly, both of them did an inventory on their suits to check for leaks caused by flying fragments of the windows. None showed.

The dust began to clear. With a sharp intake of breath, Zip peered down the hallway. Completely unmoved, the holographic soldiers were still in place. "Mark!" he said, "How'd you do that?"

"C'mon, Zip—they're just holograms! I wish I could give them the power to shoot, but I can't. So right *now* is our most critical moment! I need to bluff the Xenobots into thinking that they are sitting ducks! Here goes!"

As one man, the holograms stepped slowly, inexorably forward. Zip looked to the opposite balcony, and saw that the windows there had been blasted into oblivion as well. He saw a dull gray cloud inside that hallway, but as he watched, the pale golden warriors stepped into view.

Once again, a furious blitz of laser light filled both balconies. Zip covered his eyes with the intensity of the ruby light and stepped backward, colliding with Joe once again. Suddenly a loud, deep humming noise began, reverberating like a hundred voices. Quickly it rose in intensity so that it sounded like many waters pouring over a cataract. Several high notes, like men shouting in battle, were added to the cacophony.

"It's Mark!" whispered Joe. "Man, that's frightening! I can feel the gooseflesh on my arms, and I know it's Mark!"

"Let's help him!" shouted Zip. He lifted his laser rifle and fired at a light fixture in the ceiling. In seconds it had crashed to the floor. Joe added his fire to Zip's, and pieces of the ceiling began to fall flaming onto the Xenobots below. The intensity of the voices suddenly doubled, and the holographic soldiers slowly raised their weapons. It had to be obvious to the Xenobots now that their laser beams were having no effect on them.

As if switched off, the Xenobots abruptly dropped their attack. Zip risked a peek over the edge of the balcony. "It worked, Mark!" he exulted. "They're running in panic! They can't get through the doors fast enough!" Zip and Joe fired their lasers at the panicked attackers, ripping the floor around them and setting the door frames ablaze. In seconds, the invaders were gone.

Joe and Zip laughed out loud, releasing the tension. Until it was gone, they hadn't realized the overpowering strain they had felt during the previous two minutes.

"Man oh man!" howled Joe. "Did you see those metal monsters scatter? Like bowling pins in a strike zone! Whooooeee!! Mark, I wish you could've seen it!"

"I *did* see it, you bean pole! There are cameras all over this base! I was able to hook into them and get the holograms in place in good time!"

"'In good time' is right!" said Zip, laughing. "Mark, you've saved us! Those things have more firepower in their weapons than I ever imagined! We wouldn't have stood a chance against them!"

“Well, we won the first battle! They’re scattering through the hangar now and streaming out to their ships. Let’s hope they’re not going for reinforcements or bigger weapons!”

That thought quickly sobered Joe and Zip. “Let’s get back to Mark,” said Zip in his normal tone of voice. He turned to look over his shoulder as the two of them stepped back toward the control center. The holographic soldiers were gone. He could sense the shudder in the ground as the Xenobots’ ships took off.

~

“I’ve got an idea!” announced Zip as soon as he and Joe entered the room where Mark was sitting at the console. “Mark, didn’t you say that the two aliens you saw aboard the pirates’ asteroid were afraid of the Xenobots’ ships? They pulled up a design on the screen that looked like the ships that were just outside, right?”

“Right.”

“Can you find any files in there of the Benefactors’ ships? Maybe a big warship?”

“I don’t know. Haven’t looked. I’ve been kinda busy, Zip.”

“Well, see what you can find now. If you can make a hologram, or two holograms, of a huge warship and fly them over to the Xenobots’ base, we can continue the bluff. Joe and I will take a couple of small cobalt bombs from the shuttlecraft and walk to the edge of the crater. You fly the holographic ships over the crater and appear to fire a laser canon at two of their ships; at the same time, Joe and I will launch the cobalt bombs and blast them to pieces. If we time it right, it’ll look as if our warships have done the damage. And then you can warn the Xenobots to clear out in the remaining two ships, or face annihilation!”

“That’s really stretching the bluff a long way, Zip,” said Joe, doubtfully.

“I know it. But bluff is our only weapon.”

“How am I supposed to warn the Xenobots?” asked Mark.

“Through the dragonfly. Contact the prisoners and see how you can connect with the Xenobots’ communications system. You’ve got the sound effects here! The voices you created were chilling, Mark, absolutely chilling!”

“Okay, Zip. Create holographic warships that look like the ships that the Benefactors use, contact the prisoners, get ready to threaten the Xenobots, coordinate with you two, and destroy two of the Xenobot ships. And all before bedtime! Sure!”

“Yeah, I know! I’m tired too! It’s been a long, demanding day, and I could be asleep on my feet if I weren’t so excited! Ready, Joe?”

“I’m ahead of you, Mr. Starman leader. Let’s get down to the shuttlecraft!” He turned and led the way out the door. Mark was already searching through files for an image of a warship.

~

Ten minutes later, Joe and Zip had left the abandoned base behind them and moved quickly through the deep-frozen terrain in the gloom under a starlit sky. Overhead a multitude of stars crusted the dark vault of heaven, looking down upon the peregrinations of the two Starmen. Each Starman carried a small cobalt bomb about the size and shape of a peanut. The bombs were normally used for exploration and excavation in rugged planetary terrain, but could be launched from their rifles and easily had the power to demolish a spaceship or small building.

“How’s it going, Mark?” asked Zip after about half an hour.

“I found some good warship images! Now I’m learning how to create them in the landing area outside the base. I can make them in the hangar easily enough, but for some reason I can’t hold them in the plain outside. Just needs some adjustments, I’m sure. I’ll let you know when I’ve got it.”

After another half hour, Zip and Joe had passed the place where Zip had concealed the shuttlecraft. In near pitch darkness, they crawled through the channel that extended through the twisted and churned formations, almost like a closed tube. Only

a narrow band of sky appeared above them, about as dark as the stone. A few stars shone wan light on their efforts.

"Something big happened here a long time ago." Joe was gazing about him as he reached up for a handhold.

"What do you mean?" asked Zip, a few feet behind Joe.

"I can't see how this kind of formation could happen without some kind of cataclysm. I know there's no erosion on a place like this. With all the blade-like ridges on this cruel orb, that's pretty obvious. But look, the Helium-3 is located underground, all out of its natural habitat. On the Moon, we find it within a yard or so of the surface, the way it's supposed to be. Here, it's underground by a hundred yards or so. That tells me that what was once the surface has been covered over by molten rock."

"That happens," said Zip, reaching up so that Joe could grasp his hand and pull him up to a ledge.

"On an inert planet like this? This planet is in the deep, deep freezer for 6,000 years before it gets to stretch its toes in front of the fireplace for four or five years inside the Solar System—then it cuts back out to the Nemesis and goes back to sleep! Where's the fire that's going to melt rock like what we're climbing through?"

"Maybe it's a captured planet from some other system where it orbited close to its sun. Maybe the Nemesis star heats it to boiling at the other end of its circuit."

"Dr. O would sure like to see this, that's all I can say! If things go well here tonight, maybe those NME scientists will be able to gather a lot of information for the eggheads back home."

"The Benefactors' warships are outside now, Joe and Zip!" Mark's voice sounded very satisfied. "And do they look imposing! Wait'll you see 'em!"

"Good work, Mark!" said Zip. "I estimate that we're about an hour from the crater. Better get into contact with the prisoners and learn what you can about hooking into the Xenobots' communication system."

"I'm walking through the facility now, Zip. I've got to do that from the shuttlecraft, then run back up to the control center

to fly the holograms.”

“Keep in touch.”

For the next half hour, very little was said. Joe and Zip eased their way through a small forest of black rods that resembled thick bamboo. There were a few clearings dotted among clusters of massed tubes that rose up to twenty feet above their heads. Patches of frozen air filled the pockets where the rods and tubes came together.

“The place really *is* a wonderland,” said Joe, almost grudgingly. “Mark was the first to recognize it, but this planet has a unique beauty all its own. I’ve never seen formations like this! The conditions that produced them must have been something! It’s a real puzzle.”

Mark’s voice came through again. “Joe! Zip! The pirates that are with the crew of the *Starventure* say that they have no idea how the Xenobots communicate among themselves, but they always use a computer to communicate with humans. If I use the dragonfly’s laser to bore through the airlock, I have a chance to find it in a hurry and link up. That’s a real gamble, though, since once the airlock’s breached, there’s no going back.”

“What about the air circulation system?”

“I’ll ask. Just a minute.” The two Starmen continued their journey for another hundred yards while Mark investigated the matter.

“Okay, men. There’s a vent and I found it with the dragonfly. I can open it with the laser, but it’s a narrow passage. I wish Joe could control the ’fly instead of me; I don’t want to risk losing it.”

At that moment, there was a glow over the ridge in front of the two Starmen. A pair of Xenobot ships lifted up over the dark serrations and headed back speedily toward the base.

“Mark!” shouted both Starmen at once. Zip continued. “Never mind the dragonfly! You’ve got company coming in less than a minute! Two Xenobot ships, coming fast! Get out of there!”

“Right, Zip!” responded Mark.



Zip and Joe hunkered down in the lee of a large slab of black rock that leaned against the outer slope of the crater. Deep in the shadow, they couldn't be seen from ten feet away. Their hearts were beating fast with anxiety for Mark. The Xenobots wouldn't be fooled by holographic warriors again. They must have some other plan. Whatever it was, Mark's immediate prospects were poor, and Zip's and Joe's were little better.

Just then a great and sudden flash of intense light brightened the western horizon momentarily. Seconds later, a vibration hummed through the ground, and then faded.

"Mark! Mark!" shouted the two other Starmen.

"I'm okay!" responded the big Starman, "but the Xenobots have destroyed the entire façade of the base! It's completely crumbled in! I'm buried in here! And the shuttlecraft has been crushed under tons of rock!" Mark's voice verged on panic.

## Chapter 18: Figures of Blazing Light

"MARK!" shouted Zip, almost interrupting. "It's okay! You can get out! I'll tell you later how to do it, but right now, *run as fast as you can to the control center!* I need you to create holograms of the Benefactors' warships, right over the crater! Hurry! I need them there before the Xenobot ships return! Can you do it?"

"I'm running, Zip! Almost there!" Mark was trying to talk while breathing hard. "But I don't know if I can get the holograms up there in time! I don't even have coordinates!"

"Don't worry about the coordinates! Just guess, and when they appear I'll guide you!"

Zip and Joe hustled out of the shadow of the slab of rock and clambered up the side of the crater. It was a gentle rise, not a difficult climb at all. In less than a minute they were at the top, looking into the depressed plain beyond. Two Xenobot ships were positioned close to the overhang. The *Starventure* was off to one side.

“Get your cobalt bomb ready, Joe!” ordered Zip. “We’re going to give these Xenobots an instant response to their attack on the Benefactors’ base.”

“Right, Zip! Can’t wait to see their faces,” said Joe with a confident smirk. Deftly he loaded the pellet into the projectile barrel of his weapon; Zip did the same. “My little robin’s egg is ready,” Joe announced.

“How you doing, Mark?” asked Zip.

“Ready,” said Mark. He was more in control now. “Let me know how close I come. Now.”

With a suddenness that even startled the Starmen, two massive spacecraft appeared in the sky about a half mile away. They were sleek and beautiful, a dark green color with golden highlights. They were like great wheels a hundred yards across, slightly larger at one end than the other, and tapering somewhat on the smaller end. On the sides two rows of plates that looked like wings curved outward and upward, with a shape like that of a stingray. The ships’ elegance was enough to cause Joe to gasp and bring tears to his eyes.

“Ooh, look at them,” he sighed.

“Seven hundred yards south by southeast!” shouted Zip. The golden green ships moved instantly to a position directly over the overhung entrance to the Xenobots’ mining operation.

“Good enough!” said Zip. “Hold it right there! Get ready, Joe! I want the other ships to see this!” The two Starmen lay prone on the top of the crater wall. Within seconds the ships that had demolished the front of the Benefactors’ base appeared from the west. They zoomed in, firing weapons of astonishing ferocity at the two apparently monstrous warships that hung like sitting ducks, motionless over the crater. The beams of monstrous laser canons passed through the warships without result. The Xenobot ships began to swing in a wide arc around the crater, preparing to attack from a different angle.

“Get ready to blow the stationary ships into dust!” whispered Zip with determination. “I’ll take the one on the left. Now!” He launched his cobalt bomb. A second later, Joe launched his. The

tiny projectiles soared into the crater, far too small to be seen on any radar, and invisible in the dim illumination.

The ship on the left, followed almost at once by the second ship, exploded in a sparkling fireball. There was no sound, though a shock wave stirred the crater wall and passed through into the terrain. In the planet's light gravity, the debris seemed to float before it settled gracefully to the slag-covered ground. Pieces of twisted metal spun and whirled in all directions. A cloud of unsettled, tiny particles continued to hover, obscuring the view of the stars beyond the place where the two ships had been positioned.

"Too bad we don't have two more cobalt bombs!" said Joe excitedly. "We could blast the other Xenobot ships!"

"Exactly what we *don't* want," said Zip. "That would maroon them here. We want them gone! Mark!"

"Yes, Zip?"

"Worked perfectly! Now fly those ships as fast as you can into the west—don't let them just disappear! Fly them just inside the realm of sight far over the horizon. Then you can let them go! I want the Xenobots to think that the Benefactors are around close by, but not in the abandoned base."

"Will do, Zip!" The two holographic warships suddenly turned and sped westward. They were a quick gleam and then were gone. The Xenobot ships, which had been firing at them without ceasing, stopped their barrage. They settled down on the landing area, keeping far away from the smoking craters where the other two ships had been. Each disgorged a half dozen Xenobots, who glided rapidly into the shadow of the cliff.

"Now, Mark! As fast as you can, go back to the chamber where we took the dragonfly. Bring everything you need, because you're not going back. Your escape will be through the chamber into the Xenobots' base!"

"Uh, Zip? There's a lot of Xenobots in there."

"I know, Mark, but if all goes well, there won't be for long. I want you to blow that makeshift airlock we made and mingle the two atmospheres. Whatever the Xenobots breathe, it's not what

the Benefactors breathe.”

“But the Xenobots didn’t seem to have any trouble when they invaded our base,” said Mark.

“I remember,” said Zip. “Maybe there’s nothing to this at all, but it’s our last chance, unless either of you can think of another plan. Without the shuttlecraft, the dragonfly’s out of the picture. We have no ship except the *Starventure*, and we’ve only got the food and air we’re carrying. We win now or we don’t win at all! If the Xenobots can’t handle the mingled atmospheres, I’m hoping they’ll jump into their remaining ships and lift off!”

“Worth a try, Zip—but when I come through that wall, I’m coming shooting, if I have to!”

~

About ten minutes later, Mark spoke again.

“I’m in the chamber now, men. It’ll take me a few minutes to enlarge Zip’s tunnel so I can get all the way through. I’m bigger than the dragonfly.”

“Don’t waste any time,” said Zip. “I don’t want the Xenobots to have any more time to think than we can allow.”

“It’s gonna take a little time, Zip. I’ve got to crawl in there, carve out some chunks, pull them back out of the tunnel into the chamber, then go back in and carve some more. If Joe were doing this, he’d be able to squeeze through without much more carving.”

“Altogether, I’m happier being where I am right now,” said Joe. “Still enjoying the haze of Xenobot ship dust.”

“Okay, men,” said Mark a few minutes later. “I’m ready to poke a hole in the seal you made, Zip. That’ll blend the atmospheres.”

“The pressure’s not too different, but the Xenobotic atmospheric pressure is slightly higher. You’ll probably get a little breeze coming by for a short time, but it’s not enough to bother you. Go ahead.”

“Done,” said Mark after a few seconds. “The breeze is

blowing some dust past me. There. The dust is gone now. I'm carving the opening bigger."

"Can you see anything on the other side, Mark?" asked Joe. In spite of his saucy attitude, he was anxious for his friend. He knew that if there were any Xenobots on the other side, Mark would be just about completely helpless.

"No, it's totally dark. Okay. I've made a big enough opening. I'm crawling through now. Hmphh!"

"Okay?"

"Yeah. Just rolled through headfirst. Wasn't sure just how far down it was, but I thought that the dragonfly showed it wasn't far. It wasn't. Think I'll risk a light now."

"See anything?"

"I just put on the dimmest of lights. All I see is mounds of rock and some tread marks on the soil. Pretty fine stuff. Surprising after the hard terrain outside."

"Just wait there, now, Mark," said Zip. "Let's see if mingling the atmospheres does anything. We're watching the entrance."

~

For fifteen minutes, there was no sign. Mark watched in the darkness and saw no lights of any kind. Zip and Joe huddled on top of the crater wall. The haze caused by the dust particles thinned. The stars beyond that had been twinkling returned to their customary sharpness.

"There! Look at that!" breathed Joe. A misty cloud had burst from the deep shadow on the edge of the crater where the entrance to the Xenobots' operation was located. It spread out, became more solidly white, and then drifted down into the crater.

"Look at what? What is it?" asked Mark.

"A white cloud just came out of the door down there, then precipitated down into the crater," answered Zip.

"Sounds like their atmosphere!" cried Mark. "Yes, all the air's vanishing from around me! I'm in a vacuum now!"

"Was that movement?" said Joe. "Something's down there,

just on the edge of the shadow!”

“You’re right, Joe,” agreed Zip after a second. “Your eyes are better than mine, but I can see now. There’s a crowd of them!”

“Mark!” Joe exulted. “I think they’re leaving! Those metallic horrors are leaving town! We won!”

“Make sure now, Joe,” warned Zip.

“They’re scuttling like crabs at low tide!” shouted Joe. “Look at ’em! Hooo, Mark, I wish you could see this! Must be about forty or fifty of ’em hurrying into their space crates like bad dogs!”

“Don’t exult until they’re gone, until we’re *sure* they’re gone!” commanded Zip. “Wait! Wait!”

The Xenobot ships lifted off, seconds apart, and shot straight up into the starry sky. In little more than an eyeblink, they were out of sight.

“They’re gone,” said Zip.

“Oh really? Do you think so, Zip?” asked Joe, flippantly. “You sure it’s okay?”

“Let’s go find out. Mark, you stay put while we go in the front entrance. If it looks deserted, then you can start coming through the tunnels until we meet. Then we’ll find our crew.”

“Okay, Zip! Still silent as a tomb back here.”

Zip and Joe shuffled down the inner wall of the crater, moving in deep shadow. It was difficult for them even to see handholds, but the slope was easy. The Starmen, staying far apart and with laser rifles pointed forward, moved directly across the rock-strewn field and made their way around piles of refuse.

They came to the wide open space in front of the overhang, where the Xenobots’ spacecraft had been parked, but didn’t slow down. The *Starventure* was to their right.

Together they came into the gloom. Somber as it had been in the open area, they had to wait a moment for their eyes to adjust to the deeper darkness of the area under the cliff.

“There’s the *Tartarus*,” noted Joe. “It’s been pulled under the eaves by some kind of tractor.”

“Yeah,” said Zip.

The two Starmen moved up to the main portal. The doors hung open.

“They’ve evacuated the atmosphere entirely,” said Zip. A sudden chill ran through him. “I hope they didn’t kill the prisoners! I hope their air is okay!” Zip, followed closely by Joe, stepped through the door into a large place of Cimmerian darkness. Zip triggered a low illumination. The light shone into space, showing no walls. Far above, a portion of ceiling showed smooth and gray.

“There’s nobody here,” said Joe. “It’s a ghost town now.”

Zip grunted assent. “Let’s put on our full suit lights and get moving!” His suit blazed into its highest level of radiance, blinding both Joe and himself momentarily. Nearly a mile and a half away, Mark’s suit likewise erupted into full resplendence. The three figures, appearing as if they were made of light, began to trek deliberately into the heart of the Xenobots’ base.

“Mark!” said Zip. “Do you have that map of this place?”

“It’s pretty creased and torn, but I still have it!”

“How can Joe and I get to the cell where the prisoners are?”

Mark gave them directions. Almost imperceptible as it was, they left the last dim light that came through the open portals and moved into the ebony darkness of the Xenobots’ base. The darkness parted before them as they walked in the blaze of light their suits produced, but as they crossed empty rooms and traversed hallways it closed inexorably behind them.

Far back along an undulating tunnel, Mark came toward them. He plodded on, one foot in front of the other. It was not a difficult walk at all, but he was aware that behind him was utter oppressiveness that shut in as he moved toward his partners.

“Say, Zip,” said Joe after several minutes of silence. “If the Xenobots are gone, we can go back to the normal communication method. We can try to contact the prisoners.”

“Good point, Joe,” said Zip. “Let’s try it. All of us, back to normal compad frequency. Then, Joe, you can hail the Captain and the others. It was your idea.”

Seconds later, Joe tried to raise Captain Bors.

"Starman Joe Taylor, calling Captain Derf Bors. Come in, Captain." There was no answer. Joe tried several times. Silence.

## Chapter 19: The Warmth of the Sun

AFTER THE FIFTH TRY, Joe gave up. His eyes locked with Zip's, an anxious expression on his face.

"Probably doesn't mean anything," said Zip. "They're all together and have no need to use electronic means of communication. Their compads are turned off."

"You're probably right," said Joe. He glanced at the floor and took a deep breath. "Shall we go find them?"

The two Starmen walked on, wrapped in the pools of light their suits made. As they moved, the corners of passageways emerged from the absolute blackness of their surroundings, and disappeared into darkness behind them.

"It's like being two miles under water," said Joe.

"Yeah," answered Mark from somewhere up ahead. "That's just what I was thinking. You never know what you're going to see next, coming up suddenly into your light, and only about twenty feet away when you first see it."

Zip spoke up. "I think we're only a corridor or so from the cell, Mark. We're coming into a large hall of some kind now, and three tunnels lead out opposite us. We take the one on the right, correct?"

"That's right Zip. The airlock into the prisoners' cell is about fifty yards down that passage, on the right. I'm about two minutes away from there."

"We'll wait for you to join us before we try to open it."

"If it's not already open to the vacuum," said Joe. Neither Mark nor Zip responded.

In less than a minute, Zip and Joe stood at the entrance to the airlock.



"It's shut," said Joe, with a strong note of relief. Before long, they could see a glow from the corridor in the direction opposite to that from which they had come. Mark stepped up and joined his comrades. They shook hands wordlessly.

"All right," said Zip. "I don't suppose anyone remembers how the Xenobots opened this door?" Mark and Joe shook their heads. There was no sign of any controls in the places where one would have expected them.

"Well, then, let's see what's on the other side." Zip withdrew from his tool kit the small atmosphere tester he had used several times in the abandoned base. He prepared the needle, and then activated the instrument. The needle shot through the door and immediately sealed the opening. Zip checked the gauge, turning his head slightly to do so.

"It's the Xenobots' atmosphere. That's a good sign. The inside door must be shut. Let's just blow this one open, then we can try to contact the people through the other door."

"I'll do it," said Joe, bringing his laser rifle down. "Stand back."

He fired the beam and seared an opening through the door. It took only a moment or two to carve a panel out. Joe turned off his laser and kicked the panel. It took a few more applications of the laser beam and several powerful kicks before the chunk of door fell inward. The three Starmen stepped through the hole they had created, ducking their heads as they did so.

Zip walked up to the inner door. There was no window but there were some controls on the right wall. "We don't need to fiddle with the controls, Zip. Just bang on the door. Tell 'em it's us."

Zip lifted his laser rifle and reversed it so that he could slam the stock against the door. He banged on it hard, three times. He paused, then did it again.

"Zip?" came the voice of Derf Bors through the compads.

"No," said Joe, "it's Poindexter, the head metal mollusk, coming personally to apologize for the harsh treatment you have received up to this point, and to bring you your menus for

breakfast.”

“Joe?” asked Bors, incredulously.

“It’s all of us, Captain,” said Zip. “We’re alone on the planet. The Xenobots have left. Tell everyone to put on helmets, then we’ll blow the door open and get everyone out. We don’t know how to work the controls. You’re coming out into vacuum.”

“Just a minute,” responded Bors. “This is terrific news! This is wonderful! How did you do it?”

“Tell you later,” said Joe. “Just get everyone ready to come out.”

“Wait just a minute,” repeated Bors. “I’ll find out if anyone knows how to open the door.”

A moment later, he said, “One of the pirates says you press four of the buttons in a certain sequence. Okay, we’ve all got our helmets on now. Here’s the sequence.” He gave the directions. Joe pressed the buttons, and the door opened. The atmosphere whooshed out and was gone.

Twenty-five people made their way down the corridor to the main entrance of the Xenobots’ mining operation. Mark led the procession. Zip held a central position, next to the Captain. Joe was the last in line. The six pirates clung together in the center, with Lurton Zimbaro stumbling along as if oblivious to his surroundings. Mike Saunders, Lee Kerrel, Evelyn Forrester, and the two other mutineers were kept close to the pirates by the rest of the crew. No one spoke.

About twenty minutes later the company came into the massive entrance hall. Across the open space were the doors that led onto the stone apron beneath the cavernous overhang. A few stars shone dully in the doorways, visible as drab gray rectangular openings in the deeper darkness. The company passed through and approached the *Starventure*.

Captain Derf Bors came to the foot of the boarding ladder and said, “Everyone wait here until I test the systems. Dennis, Martin, Frank, please come with me.” He ascended the ladder, opened the main hatch, and entered the ship. Dennis Bronk, Martin Caidin, and Frank Duncan followed Bors aboard the ship.

The huge chemical engineer was moving gingerly, but seemed not to be suffering too much.

Fifteen minutes later, Bors gave the “come on ahead” signal, announcing that apparently the *Starventure* had not been touched or even approached by the Xenobots since it had landed fifteen hours earlier.

Of the twenty-five people, eleven were still prisoners. Three rooms were set aside as a brig, and the eleven were incarcerated inside.

Mark Seaton sent a message back to Starlight Enterprise, bringing Richard and his team up to date. He included personal messages from the Starmen, to be relayed to their families.

After half an hour of transmission, he sat back with a deep sigh. “At last! The pirates are all accounted for! No one left!”

“There’s still the spy somewhere in the SE or NME system,” reminded Zip.

“Right, but there’s no one for him to report to any more,” said Mark.

“We’ll see. I’m sure he’s still capable of doing us harm.”

“Let the security people worry about it!” asserted Joe. “I’m too happy right now to let that depress me! Can we get something to eat? I need to get something inside me and then sleep.”

Captain Bors asked Nicholas Treadgold to prepare a snack for everyone who was hungry.

“I’ll take Forrester’s place,” said Mark. “I like to cook, and Nicholas needs the help.” It didn’t take long for them to prepare a stack of ham and cheese sandwiches and throw some apples into a bowl for everyone to dig into.

When Joe’s fingers had finally pushed the last of a third sandwich into his mouth, he scooted back from the table. “I’m going to sleep. Wake me when we get home.” Zip and Mark were not far behind him as he took the stairway to their bunkrooms.

~

Late next morning, Derf Bors brought the Starmen up to date on what had transpired while they slept. "Jonathan Parfitt, Rebecca Leyden, and the other scientists want some time to survey the planet. I've told them we'll give them three days, not the ten we had planned. We may be alone on Nyx for the time being, but no one knows whether the Xenobots will return or when. I'm very uneasy staying here without more information about our enemies, but we'll move to another place on the surface from which we will conduct our investigations. SE and NME have both confirmed this decision."

Captain Bors relocated the *Starventure* to another site on the planet. He found a deep ravine, still wide enough to allow the spacecraft to make a full descent. The ship could not be located by visible means except by a direct overhead view.

While the scientists conducted their research, the Starmen relaxed. Now that the crisis was over, they enjoyed their walks on the surface of Nyx. The tension in the ship seemed to have evaporated completely. The remaining crewmembers were enthusiastic about their work. Mealtimes were occasions of light banter, sharing exciting discoveries, and cementing new friendships.

The prisoners were kept to themselves and were served meals under careful watch. No resistance of any kind remained in them. Even the pirates seemed cooperative, obviously preferring captivity by humans to confinement by the Xenobots. In spite of the certainty that they would be tried back on Earth for their heinous crimes, they seemed to enjoy the contact with their captors. Zimbardo alone remained aloof, and spoke almost not at all to anyone, not even to Maury Gebbeth, who had been his closest ally.

"They treated us as less than pets!" moaned Gerald Poppy. "We were nothing more than laboratory specimens to them. They didn't torment us, but being held in such indifference and contempt was enough to drive us to the edge of sanity! We spent all our time in that four-walled cell with light and air, but no recreation and nothing to eat but chemical food!" He was a

broken man.

“The Xenobots showed a deep dread of their ‘ancient enemy’, and this fear consumed them. They were always ‘looking over their shoulder,’” contributed Graham Slant, with eagerness. “We had no idea when they might tire of us and just kill us.”

Zip talked with the other Starmen and the Captain later. “The Xenobots have a hatred of this ‘ancient enemy’, and show merciless ferocity toward them. Remember that furious attack they made on the holographic soldiers! Their panic that followed also shows how much they fear them. We, by contrast, are beneath their contempt. That worked to our advantage this time, maybe, but we haven’t seen the last of the Xenobots, not by a long shot!”

~

At the end of the third day, Mark sat outside the ship, alone. He had scaled the side of the ravine and climbed to the top of a mound of black, volcanic rock, embedded with sparkling crystals. He sat staring into the west, where the sun showed as a large, bright star. A very faint reddish aura surrounded it. Patches of frozen atmosphere lay around Mark, and the reflection of the sun and starlight was bright enough that Mark could have read a book, if he had had one.

*We’re starting home tonight*, thought the Starman. Now that the Starmen’s assignment had been completed, his quiet side could come to the surface. He recalled the few days, several months earlier, when the *Starventure* had whipped in a slingshot course around the sun, approaching nearer than any human being had ever done before. “Seems so long ago, now, but soon we’ll have the warmth of the sun again. Out here in the supreme loneliness of deep space, getting home is not just a physics problem anymore!” He smiled with heartfelt contentment.

“Liftoff in one hour,” announced the Captain over the general communications systems to all personnel.

~

Six days after launch from the dwarf planet, the four prisoners who shared a room with Lurton Zimbardo begged desperately that they be removed from the cell and moved in with the other prisoners. Although Zimbardo was not showing signs of violence, his behaviors were becoming increasingly disturbing. He appeared not to have slept at all since he had been brought aboard the ship. Without exception, his cell-mates insisted that Zimbardo's presence among them created a constant feeling of black dread verging on terror.

At the Captain's order, eight armed personnel kept watch on Zimbardo as his four companions were removed to the company of the others in the two remaining parts of the brig. A powerful sense of relief and gratitude flooded through the four men after they had been moved.

Mark Seaton was profoundly disturbed by this turn of events. Evil as Zimbardo clearly was, it was horrifying to see the continuing decline of any human being into something less than human.

When the exchange had been completed and the doors resealed, Mark waited in the corridor while everyone else went back about his business. He moved up to the window that opened into the cell where Lurton Zimbardo now resided alone. He put his face to the glass and peered in.

Zimbardo's eyes roved with unrelenting motion to every part of the cell, taking everything in but registering no intelligence. Then for just a moment, a split second, it seemed to Mark as if Zimbardo's eyes paused in their relentless searching and noted his presence. In that pause, Mark perceived a silent, bottomless cry of anguish and loss that passed as quickly as he discerned it. Then the eyes of the man moved on again aimlessly.

"There was nothing human in those eyes any more—nothing human at all," Mark thought, and tears began to fill his own eyes. He felt a vehement repugnance, and then a great sadness, an infinite sadness, a sadness that could almost fill the universe. He choked back a sob.

~

Back on the control deck, Joe and Zip were talking with Derf Bors, Martin Caidin, and Dennis Bronk.

"If we don't find the Benefactors—the race that brought the Titanians to this Solar System, and the people whom the Xenobots fear so much," Zip was saying, "we'll be on our own if the Xenobots return! And I'm not too confident that we can resist them!"

"What're you saying, Zip?" asked Joe. "I think I'm going to like it!"

"We've got to search the pirates' asteroid thoroughly for any evidence of the Benefactors! And besides the asteroid, we've already found three places where there is evidence of their presence: Mars, Titan, and Nyx. None of these places shows any signs of long-lasting residence, but I'm guessing—maybe just hoping—that there is some place in the Solar System where the Benefactors established a permanent base of some kind. I want to find it!"

On their own authority and under Zip's leadership, the Starmen will decide to make a search for the Benefactors' primary base in the Solar System. The story will be told in the fourth book in the Starman saga, **DESCENT INTO EUROPA**. Their quest will lead them to the vast, lightless ocean of this Jovian moon, crusted with tumbled ice sheets several miles thick, and deeper by far than any oceans on Earth. Do they hold the secret of the Benefactors' presence in the Solar System?

But for now, the *Starventure* continued on its return journey of one hundred days. Behind them the uninhabited dwarf planet hastened headlong in its remarkable orbit toward the Inner Planets.

Zip took his place beside a large window, and thought about this adventure that had tossed him emotionally like a chip of wood on the sea. He thought of his sister Kathy and smiled. He remembered Kristina Bethany and smiled wider. He gazed out at the white stars, as large and abundant as snowflakes peacefully

falling on a crisp winter's day on his aunt and uncle's home in West Virginia.

He sighed and was happy.

The Starman saga continues in the second volume of the Starman trilogy, **THE SEARCH FOR THE BENEFACTORS**.