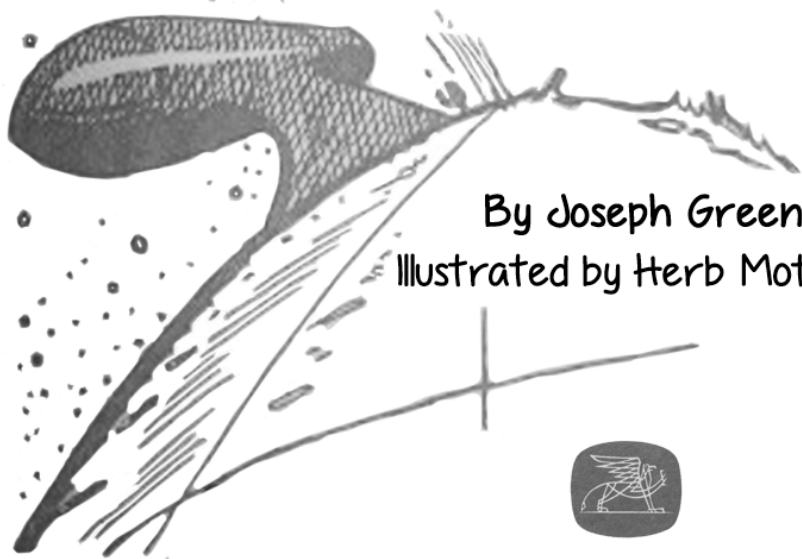




A DIG ALLEN SPACE EXPLORER ADVENTURE

The Forgotten Star



By Joseph Greene
Illustrated by Herb Mott



GOLDEN PRESS NEW YORK

Dig Allen— The Forgotten Star

By Joseph Greene

Book 1 In The Dig Allen
Space Explorer Series

With Illustrations By Herb Mott

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To
Ellen, Robert, Paul and Stormy
without whose constant help
this book would have been written sooner

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1 Spaceward Bound

FIERY jets streaming from her rocketubes, the *S. S. Pioneer* raced through black space, ten thousand miles above Earth's atmosphere. Twice the great spaceship had circled around the planet. Each time, the space pilot checked the course for the Moon.

Then, as the silvery nose turned slowly toward outer space, the alarm went off, shattering the silence of the ship. Through numerous passageways below, grim-faced crew members leaped to emergency stations.

In the main cabin, the passengers had been crowding at the viewport, watching the round globe that was Earth floating in the darkness of space. Now, their faces suddenly pale, they looked about in fear.

Of the passengers, Jim Barry was the first to realize that danger threatened. He grabbed his brother's arm.

"Into your seat, Ken!" he cried. "Strap in!"

And then, abruptly, the howling siren stopped. In the unexpected silence, the passengers scrambled awkwardly toward their foam-pad seats. Some of them, not used to the light gravity of the ship, stumbled and lost their footing. Frightened and helpless, they drifted through the air until helped down to their seats by fellow passengers.

"What happened?"

"The emergency alarm!" someone muttered. "It went off!"

"We know that!" shouted an impatient voice. "But why?"

Suddenly the loudspeaker came to life and the voice of the pilot filled the room.

"Attention, please!" he called. "The alarm was triggered from Earth Spaceport. Our orders are to orbit around the Earth. A Space Guard patrol cruiser will come alongside. A stowaway has been reported on board. That is all!"

An excited murmur ran through the passenger cabin. Jim Barry turned to his brother with a sigh of relief.

"A stowaway! And I thought we were going to be

spacewrecked!”

Ken smiled weakly. “So did everyone else—including me.”

“We're not out of danger yet!” a stout, grey-haired man said with a solemn shake of his head.

“What kind of danger are we in, sir?” Jim asked.

“Well, son,” the stout man replied pompously, “stowaways usually crawl aboard through the rockettubes and hide too close to the atomic engines. If they get a dose of radiation, they are usually dead by the time we reach the Moon.”

“I'm sorry for the stowaway,” Jim said.

“Yes,” the man continued. “But suppose he leaves his hiding place and mixes with the passengers? He'd be as hot as an atomic pile and spread radiation sickness among us!”

“Dear me!” moaned a timid man. “Radiation sickness!”

A slow vibration shook the ship. The nose rockets were blasting quick stabs of flame, turning the ship into an orbit around the Earth.

“We're in orbit now,” announced the stout man. “I'm going to watch the *Space Cruiser* come alongside.”

Within minutes the passengers were once again crowding at the viewport, trying to catch a glimpse of the approaching patrol ship.

Jim nudged his brother. “What do you say we have a look, too?”

“All we'll see is the backs of their heads,” Ken replied with a glance at the crowded viewport.

“There must be other viewports on the ship. Come on.”

The brothers slipped out of their seats and made their way to the rear of the cabin. An oval-shaped door opened into a narrow passageway. The magnetoes on their spaceboots clicked loudly on the steel deck as they walked.

Jim was a year older than his brother and taller by several inches. He had a thin, handsome face and a pair of mischievous eyes. His brown hair lay in an unruly mass on his head.

Ken, the more serious-minded of the two, was stocky, with powerful shoulders and a square, rugged face. His blond hair, cropped short, stood up like the spiky bristles of a brush.

"I wonder if passengers are allowed in this part of the ship," Ken said cautiously.

"Oh, come on," Jim replied impetuously. "If we're not supposed to be here, someone will tell us soon enough."

The passage ended at a door and Jim opened it without hesitation. The boys found themselves in a small cabin with a viewport.

"We're in luck!" Jim laughed. "We've got the place to ourselves."

Through the glassteel crystal of the viewport they saw the Earth, huge and round, hanging in the black immensity of space.

"Strange, isn't it?" Jim sighed. "The *Pioneer* is going close to thirty thousand miles an hour, and yet we seem to be standing still while the Earth spins around."

Fascinated by the view the boys stared in silence. Finally, Jim turned to his brother.

"What are you thinking about?"

"Our new home on the Moon. And about Earth."

There was a suggestion of sadness in the boy's voice.

"Homesick, Ken?"

"A little."

"Well, Dad's job is on the Moon and Mother is with him," Jim said. "So I guess we belong up there, too."

Ken nodded in silent agreement. He was watching a moving light on the dark side of the Earth.

"I wonder if that's the *Space Cruiser*," he said.

"It's coming up fast," Jim replied. "Looks like the jet-stream of a rocket."

The light grew larger, glowing bright against the night half of the Earth. Soon the boys could make out the dim outline of the cigar-shaped spaceship. The forward rockets were blasting, braking the ship's speed.

Ten minutes later, the Space Guard cruiser was floating quietly alongside the *Pioneer*. A hatch opened near the blunt nose of the ship and a figure crawled out. He was dressed in the bright orange-colored uniform of the Space Guard.

As the hatch closed behind him, the spaceman hurled himself head first toward the *Pioneer*. For a few minutes, the body floated weirdly through space. Then, as he neared the *Pioneer*, the man suddenly threw his head backward. The movement carried his feet forward in a half-circle somersault, and almost immediately the spaceman's boots struck the hull of the ship. The magnetos on his spaceboots held. The man swayed for a moment, then turned and walked up the hull of the *Pioneer*. As he passed the viewport, the Space Guard flashed a look at Jim and Ken. An instant later, he had shuffled over the curve of the ship's side and was gone.

Jim and Ken caught a glimpse of the man's face. It was thin and dark, with a large, hooked nose and a pair of black glittering eyes.

The Space Guard cruiser was now dropping back to Earth. The rockettubes of the *Pioneer* began to blast, sending shudders through the ship.

Jim and Ken were so absorbed with the scene that they failed to hear the door open behind them. The sudden click of its closing startled them.

A boy their own age stepped through the doorway. Surprised at finding the cabin occupied, the newcomer stopped and stared at the brothers suspiciously.

He was short and slim, with bright red hair and a nose that was snubby and peppered with freckles. He wore the light-blue clothes of a spaceman, with long trousers tucked into the tops of his spaceboots and a close-fitting shirt open at the collar.

"Come on in," Ken greeted him cheerfully.

Slowly the red-headed boy approached them. He moved in a strange gliding motion, his knees slightly bent as his feet slid along the metal deck.

"I'm Jim Barry and this is my brother Ken."

"I'm Digby Allen," the boy replied. "My friends call me Dig."

"We're on our way to join our parents on the Moon," Jim said, smiling at the stranger. "We've been finishing school back on Earth."

"Dad's director of the Space Research Department," Ken added. "We're going to live on the Moon."

Dig Allen smiled. "I thought the name was familiar," he said.

"I know your father. I was there when they were building the Labs. That's over Copernicus Way."

"Copernicus Way?" asked Ken. "What's that?"

"A crater on the Moon," Dig told them. "The Labs are in the center of the crater and the staff living quarters are dug out of the side."

"Must be more comfortable than living in one of the space-huts, I guess," Jim said.

"Are you a member of the crew?" Ken asked. "You're not a passenger."

"You've got to be eighteen to be an apprentice spaceman," Dig replied.

The startled expression that flashed across the faces of the brothers did not escape Dig Allen's quick eyes.

"Yes," he said quietly. "I'm the stowaway."

"How... how did you get aboard?"

"Crawled through the rockettubes before the *Pioneer* blasted off."

"Isn't that kind of dangerous?"

"Radiation?" Dig Allen smiled. "I've lived most of my life on spaceships. I didn't hide near the atomic pile. There's no danger of radiation from me."

"What will they do to you if they catch you?" Jim asked.

"Court-martial. And they'd send me back to Earth," Dig replied with a shrug. "But they won't catch me... if you don't tell the Guardsman."

"We wouldn't do that!"

“Thanks,” Dig said sincerely. “I’m going to hide inside the emergency spacesuit locker.”

He opened a small door in the wall opposite the viewport. Inside, a row of spacesuits hung from a metal rack. The room itself was small, no more than four feet deep and about six feet long.

“I’ll be in here.”

Jim glanced inside. The walls were of solid steel. There was no other door.

“You’ll be trapped inside,” Jim said.

“No, I won’t,” Dig replied confidently. “I better get in. The Guardsman will be coming along any minute.”

Before he went into the room, Dig turned to the boys.

“I’m not a space crazy kid,” he said. “But I’ve got to get to the Moon and this is the only way.”

“Even if it means taking a chance on a court-martial?” Ken asked.

“Even if I have to take a chance on my life!” With that. Dig Allen stepped into the locker and pulled the door shut behind him.

“Even if he has to take a chance on his life?” Ken muttered.

“I wonder what could possibly...”

“Hey!” Jim grabbed his brother’s arm and pulled him quickly toward the viewport. The boys were intently studying the last traces of the disappearing Space Guard Cruiser when the door to the cabin opened and a tall, powerfully built man stepped into the room.

At a glance, the boys recognized him as the man whose face they had glimpsed through the viewport.

“Your names?” he asked in a quiet, but commanding, voice.

“James Barry, and this is my brother. Ken.”

“Glad to meet you boys. I know your father very well,” the Guardsman said. “I’m Sergeant Brool. I guess you know why I’m here.”

“Yes, sir,” Ken replied. “The stowaway. Is he

dangerous?”

The Guardsman shook his head. “No, he isn't. In fact, he's a good friend of mine.”

“I... I don't understand.” Ken hesitated. “Then why are you hunting him?”

“Digby Allen was ordered to stay on Earth. He disobeyed. My orders are to find him and bring him back to Earth.”

As he spoke, the Guardsman watched the boys closely. Several times he noticed their eyes shift toward the spacesuit locker.

Suddenly the Guardsman stepped to the locker door. With a quick snap of his hand, he threw it open.

Jim and Ken groaned as the Guardsman stepped into the small room. They waited for the angry explosion, but none came. The Guardsman stepped back and let the door swing shut.

“I'll see you boys later,” he said and shuffled out of the cabin.

In utter amazement, Jim and Ken stared at each other. Then Jim leaped for the door and, with a fierce wrench, opened it.

“Dig!” he cried. “Dig! Didn't the sergeant...”

His words turned into a gasp!

“Dig's not in here!” Jim whispered.

“You're space goofy, Jim! There's only this one door! The walls are solid!”

“See for yourself. Ken.” Jim stepped back.

The spacesuits were still hanging on the rack, but otherwise the tiny room was empty.

There was no sign of Dig Allen!

2 The Last Message

NO WONDER Sergeant Brool didn't find Dig!" Ken exclaimed.

"He isn't here!"

"But we saw Dig go in," Jim insisted, shaking his head in amazement. "And we didn't see him come out!"

"This is serious, Jim. I think we better call Sergeant Brool!"

"Don't do that!"

The voice seemed to come from the empty air. The boys moved back warily. One of the spacesuits, twisting and turning, suddenly came to life.

From the side of the spacesuit a hand appeared. It was followed, a moment later, by a shoulder and then Dig Allen's head. There was a big grin on his freckled face.

"Dig! What a scare you gave us!" Ken said.

The red-haired boy grasped the rack from which the spacesuits were hanging and pulled himself up.

"Sorry," Dig said. He pulled his feet out of the spacesuit, then let himself float down to the deck. "I'm safe for a while. The Sarge will be searching the rest of the ship."

"You're sure taking a lot of chances to get to the Moon," Ken said thoughtfully.

Dig Allen's face became grave. He turned away from his new friends and stared out of the viewport. The stars, bright and sharp, punctured the hard blackness of space. It was several moments before he turned again to his companions.

"Have you ever heard of Captain Boyd Allen of the Space Explorers Corps?" Dig asked softly.

"I think I heard something on the videonews," Ken said. "A Space Explorer who was lost..." Suddenly he stopped and stared at Dig. "Allen!"

"Yes, my father," Dig nodded, an angry glint in his eyes.

"An item to fill up thirty seconds of time on the news

program... but he was my father.”

“Im sorry,” Ken began.

“My father lost in space! Lost in the cold, awful darkness of space! Lost! And no one cares about it!”

“You can't mean that. Dig!” Jim touched his friend's arm gently. “The Space Guards will find him.”

“The Space Guards gave up the search a month ago!” Dig retorted. “I raised a fuss! I wouldn't let them give up; that's why they sent me down to Earth!”

“How will stowing away on this ship help?” Ken asked.

“I'm going on to find my father!”

“Where? Have you a clue?”

Dig pulled a crumpled piece of paper from his belt pouch. He handed it to Jim who smoothed the paper out on his knee. Ken leaned over his brother's shoulder and together they read the brief spacegram.

To: Digby Allen Space Explorers Luna Base

Urgent:

Spacegram

15 January 2161

Get all available information regarding No. 433. Legends, myths, rumors, tall stories, everything.

Captain Boyd Allen, Explorer Ship *Viking*

“What does it mean?” Jim asked, handing the spacegram back.

“No one seems to know,” Dig replied. “Not even the big brains at Space Command Staff. It's the last message Dad sent from space. The clue to what happened to him is in there. I'm sure of it!”

The boys puzzled over the message for a long time.

“Could it be a space freighter?” asked Jim.

“No, the Space Guard tried that,” Dig replied. “They searched an asteroid by that number, too. They tried everything. And they're stumped.”

No one disturbed them in the little cabin. Finally Dig

folded the paper and stuffed it into his belt pouch.

“I think the Sarge may be coming back this way,” he said.

“The Sarge? You mean Sergeant Brool?”

Dig nodded. “That’s what all the kids on the Moon call him. We’ve known him all our lives.”

“Maybe we’ll be calling him Sarge, too,” Jim said. “After we settle down, that is.”

“I’ll be inside one of the spacesuits,” Dig said. “Knock on the door twice and I’ll know it’s safe to come out.”

As soon as Dig was safely hidden in the locker, Jim and Ken hurried down the corridor to the main cabin.

A passenger hailed the boys as they came in.

“Just in time, boys! A delicious snack! Help yourselves!”

He pointed to the side of the cabin where a wall panel had been opened. Inside were cubicles stocked with sandwiches and a variety of beverages.

“Take an extra plastube of milk,” Jim whispered to his brother as he helped himself to several sandwiches.

Hungrily, they sat back in their foam-pad seats, biting into the sandwiches and sipping from the plastubes of milk.

“I see you haven’t lost your appetites,” a cool, friendly voice said.

The boys turned their heads. Sergeant Brool was standing beside them.

“Oh, hello, Sarge,” Jim said.

“Sarge, is it?” A hint of a smile came over the dark features of the spaceman. “You lads are learning fast. Though it beats me how you know my nickname.”

“How long will this trip take?” Jim asked.

“About five hours.”

“How fast is the *Pioneer*?”

The sergeant rubbed his chin with a thick thumb. “Top speed is about one hundred thousand miles an hour.”

“Then shouldn’t we be on the Moon in less than three

hours?” Jim asked.

The Guardsman shook his head. “It's not that simple. Takes about two hours to reach top speed, and another two hours to slow down so we can land.”

“Then we travel at top speed for only one hour out of five?”

“That's about it.”

“Well, we've got plenty to learn,” Ken said.

“You will,” said the sergeant. “I'll be stationed at Luna Spaceport for a while. I may have a chance to teach you a little spacemanship myself.”

“Would you?” Jim and Ken exclaimed.

“Aye, it's a promise. If you boys ever get lost, I'm the one who has to find you. The sooner I make spacemen out of you, the easier my job's going to be.”

He broke the stiffness of his face with a good-natured smile and left them. The boys watched him go up the aisle toward the pilot's cabin.

Both boys found that they liked the stern, grave Guardsman.

“I hope we're going to be friends,” Ken murmured as he leaned back in his seat.

Time passed, but the boys hardly noticed it. The air was filled with the lazy drone of conversation. They dozed from time to time.

The voice of the pilot over the loudspeaker startled the boys.

They were to land, he announced, in thirty minutes!

“Dig must be starved!”

Ken sat up and looked at Jim. He reached for his belt pouch and tapped the sandwich and plastube of milk he had hidden.

Jim nodded and left his seat. Casually the two boys strolled to the rear and slipped through the door. Out of sight of the passengers, they hurried to the small observation cabin.

Jim rapped quickly on the spacesuit locker and almost

immediately Dig Allen came out.

“Hope you brought me something to eat.”

Ken tossed the plastube of milk to him. It floated slowly and lazily through the air. Dig snagged it with a quick snap of his hand, flipped off the cap and drank eagerly.

“Ah,” he sighed. “Just right!”

While Dig ate, Jim and Ken told him about their conversation with Sergeant Brool, and his promise to teach them spacecraft.

“You couldn't ask for a better teacher,” Dig said.

The forward braking rockets began to blast, slowly at first, then faster until the ship shuddered from the rapid explosions.

“Getting ready for the landing,” Dig explained. “The pilot is swinging the *Pioneer* around so that we come in on our tail rockets.”

“How will you get off the ship?” Ken asked, a worried frown on his forehead.

“As a member of the crew. I'll get into a spacesuit and work on the landing gear. Once on the ground, I'll slip away.”

“Maybe you ought to come and stay with us,” Ken suggested. Dig shook his head. “I've got a plan and I mean to carry it out. I came here to look for my Dad and I won't give up until I find him.”

The boys became silent. They stared out the viewport, watching the Moon swing into view. Huge and round, the rugged landscape was pitted with countless craters, seas of dust and steep mountain ranges.

Dig pointed to a particularly large crater. “You'll be living there, in the sides of that crater. It's a lot bigger than it looks from here. The sides rise over 17,000 feet above the floor. And it's fifty-five miles across!”

Jim whistled softly. “It's big, all right.”

“Where's Luna City?” asked Ken.

“Above and to the right of Copernicus,” Dig pointed. “In that small crater. Just below it is Luna Spaceport.”

“Can't see anything from here,” Ken said.

“Most of the city is underground and carved inside the crater's wall,” Dig told him. “Over to the left of Luna City, above Copernicus, is the Carpathian mountain range. Most of the mountains are unexplored.”

“I'd like to explore those mountains,” Jim said.

“Just south of the mountains,” Dig continued, “is the Graveyard of Space...”

“Graveyard of Space! It gives me the creeps...” Ken shuddered. “What is it?”

“Just a big junkyard,” Dig replied with a smile. “Space-wrecks and ships too old to be used safely are dumped there... and forgotten. I used to play there when I was little.”

The loudspeaker crackled and the pilot's voice filled the room.

“Attention! We land at Luna Spaceport in ten minutes. All passengers are requested to strap in. That is all.”

Dig turned to his friends.

“I guess it's time to say good-bye. You'll have to get into your seats. Deceleration pressure is going to be over three-gee.”

“What about you?”

“I can take it on my feet,” Dig replied. “I've landed on Mars and Venus many times with my father. I've been flying the spaceways since I was a baby.”

“I didn't know they let children on spaceships.”

“I guess you don't know much about Space Explorers,” Dig said with a smile. “They can go anywhere, take anyone with them, do anything. Not even the Space Guards can give orders to a Space Explorer.”

“Sounds like they're the best of the spacemen,” Ken remarked.

“I think so,” Dig said proudly. “I didn't have anyone after my mother died. I was just a baby. Dad... well, we just had each other. So he took me with him.”

Another warning over the loudspeaker informed the

passengers that the landing would take place in five minutes.

Dig Allen took out a yellow-colored spacesuit and slipped into it. The spacehelmet resembled a fish-bowl and was made of unbreakable glassteel crystal. He held this in his hand as he looked at his friends.

“I’ll never forget your help.”

He placed the spacehelmet over his head and clamped it into the tight-fitting collar. A moment later, he shuffled out of the cabin, going toward the stem of the ship.

Jim and Ken were already feeling the pull of the Moon’s gravity. The deck seemed to be tilting upward. Soon the stem of the spaceship would become the floor and the deck a vertical wall.

“We better hurry!”

The rocketubes were beginning to blast with full power when the boys reached their seats. Quickly they strapped themselves in.

The *Pioneer* had been hurtling through space at tremendous speed. Now the great ship was rapidly braking. The boys felt their bodies sinking deeper and deeper into the air-foam cushions. The pressure built up continuously until it seemed that a massive weight pressed down on them.

The pressure lasted for less than a minute.

Then suddenly it was gone! A sharp jolt, and then the roar of the rocketubes stopped abruptly. A strange stillness settled over the ship.

The *S.S. Pioneer* was resting on the ground at Luna Spaceport!

During the landing operations, the seats in the main passenger cabin had been pivoted. In spaceflight, passengers sat one behind the other. On land, the deck became the wall, with the seats mounted on it, one above the other.

Clumsily, the passengers lowered themselves down metal cleats in the wall.

The boys stayed in their seats while the other

passengers were leaving. They stared out of the viewport. Far below, tiny figures were scurrying about at the base of the spaceship.

“One of them must be Dig,” Ken said.

A huge tower was rolled across the field toward the spaceship. From the top of the tower a tube-like gangway telescoped toward the *Pioneer*. Crew members, clad in spacesuits, guided it into the open hatch of the airlock.

Another tube-like gangway joined the tower to the domed spaceport building.

“Let's go, Ken.”

The boys climbed down through several floors of the ship to the airlock deck. Just as they were about to enter the gangway, a sharp, angry voice stopped them.

“One moment!”

Sergeant Brool was standing in the shadows of the room.

“I thought you knew enough about the spaceways to trust the Space Guards!” he said, stepping forward.

Jim gulped and looked away. His face turned red. He felt rather than saw Ken's sudden dismay.

“Because of you. Dig Allen is in grave danger!” the Guardsman snapped. “I found one spacesuit missing from the locker! Dig has just four hours of oxygen in that suit! What will he do when it's all used up?”

3 The Mysterious Prowler

THE BOYS stood silent and downcast as the Guardsman lashed them with his angry words.

“Dig took that spacesuit and slipped off with the crew,” the sergeant roared. “Now he's out there with just four hours of oxygen!”

“He... he can recharge the tanks,” Jim said lamely.

“Where?” The sergeant thrust his face at Jim. “He's known here at Spaceport and in Luna City! He won't risk getting caught! No, he's desperate, and he'll try some spacecrazy stunt!”

“We couldn't give him away, sir!” Ken pleaded. “We promised!”

“No, I suppose not,” said the Guardsman, his face softening.

“I might have done the same in your place. Be off with you!”

The boys hurried into the gangway tube and stepped on the glideway. A plastic belt moved them quickly to the tower, where it formed an escalator. At the bottom it became a moving belt once more and carried them to the domed spaceport building.

A Spaceport official checked their names and motioned them through the gate into the main waiting room. The room was filled with noise and the movement of excited people. Overhead, the domed ceiling glowed with permatile lights.

Jim and Ken stopped just inside the gate and looked about in confusion. Suddenly they heard a familiar voice cry out.

“There they are!”

Two figures pushed through the crowd.

“Ken! Jim!”

The next instant both boys found themselves fairly smothered in Jane Barry's arms.

“We sure missed you, Mom!”

Dr. Keith Barry stood back and watched his wife greet the boys, a playful smile on his lips. He was a tall man with a trim, athletic figure. Though youthful in appearance, there was a tinge of gray in his hair.

“Don't I get a chance to welcome the boys?” With a laugh, Mrs. Barry released her sons. The scientist put his arms around the boys and gave them a hard squeeze.

“An exciting trip, eh?” he chuckled.

“You know about the stowaway?” Jim asked.

“Everyone in Luna City is talking about it,” Jane Barry told the boys. “After all, a stowaway! Even a false alarm is news here.”

“But it wasn't a false alarm. Mother!” Ken said. “Dig Allen is here on the Moon!”

“We talked to him before he got off the ship,” Jim said.

“Oh?” The scientist looked at the boys quickly and frowned.

“You'd better tell us about it on the way home.”

From the great dome area, four wide passageways radiated outward like the points of a giant compass. Dr. Barry guided the group through the crowd until they reached a glideway.

“This way,” he directed.

Nimblely, they stepped on the moving belt and were quickly whisked into the long arcade. Sidewalks flanked them on both sides. Crowds were moving along leisurely, looking into store windows.

The boys gaped at the displays. Leather products from the tough hides of Martian desert lizards vied for attention with colorful giant fruit from Venus. The windows were crowded with all kinds of equipment for space travel.

Noticing the boys' interest, Mrs. Barry laughed.

“Luna Spaceport is the main shopping center. Not only for us, but for all space travellers and pioneers.”

“We're living in times that are pretty much like the old days of the West in America,” said Dr. Barry. “Only nowadays the pioneers move spaceward. They go in

spaceships instead of covered wagons-and they settle on Mars or Venus.”

“And this is where they buy their outfits?” Ken asked.

“Yes.”

Five minutes later, they left the glideway and entered a large concrete chamber. The place was filled with a wide variety of vehicles, all mounted on tractor treads.

“Is this the Luna City garage. Dad?” Jim questioned.

“Yes,” his father replied. “And we're going to get our Catshort for caterpillar tractor. Wheels aren't much good here, so we use caterpillar tractors to get around.”

The cabins of the vehicles looked bulky and squat. Each was painted a different color or combination of colors.

“Self-contained units,” Keith Barry explained, steering the boys to one painted in alternate strips of black and white. “This one is ours. It's as good as a spaceship and Just as comfortable. You can live on board for weeks.”

“Is that our identification number?” Ken asked, pointing to the lettering on the side.

“Yes, that's us, C-52,” his father said. “Remember it.”

He opened the door and motioned the boys inside. There was a small airlock and beyond that the control cabin, roomier than the boys expected it to be.

“There's a storeroom in back,” Mrs. Barry told the boys while her husband started the engine. “We keep our food, water, oxygen and fuel there.”

“No kitchen?” Jim asked with a smile.

“Yes,” his mother laughed. “Also a small kitchen unit.”

“You boys can start learning right now,” the scientist called to Jim and Ken as he steered the Cat down the center of the huge chamber.

The boys took seats beside their father and watched him guide the machine toward the massive door of the airlock. When they were inside, the hatch behind them slid shut and the scientist turned to the two boys.

“It'll take a minute or so to pump out the air,” he said. “In the meantime, I'll show you how this works.”

There were three levers mounted on the control board. The scientist indicated the middle one.

“You push this forward to go ahead. Pull it back to reverse,” he said. “The other two control the left and right tracks separately and are used to turn the Cat.”

“How about the speed?”

“The accelerator is on the floor. The harder you press down on it, the faster your speed. Any questions?”

“No, sir,” Jim replied. “Seems simple enough.”

“It is, with a little practice.”

The outer hatch of the airlock rolled upward. Dr. Barry pushed the middle lever forward and the Cat rumbled out.

Before them was the bleak and desolate landscape of the Moon. Dr. Barry turned the Cat into a road that stretched ahead like a thin flat ribbon, and pressed down on the accelerator.

From the purple-black of the sky above, the sunlight blazed down sharply. In the distance loomed a great range of mountains.

“The Carpathian Mountains?” Ken asked, pointing.

His father nodded. “We’ll pass them on our right.”

As they drew closer, they could see the cold, bare rocks tumbled in weird shapes. Gaunt spires of granite, jagged crags, and masses of piled boulders reached grimly spaceward. And over all hung an eerie stillness.

“Now, boys, what about Digby Allen?” Keith Barry said.

“Suppose you start from the beginning.”

Quickly, the boys recounted the story of their meeting with the red-haired boy. The scientist did not interrupt but waited patiently until they had finished.

“I’m sorry for Dig Allen,” Keith Barry said. “But he’s doing a foolish and dangerous thing. How does he expect to find Captain Allen when the Space Guards couldn’t?”

“There’s no hope, then?” Ken asked.

“No, not after all these months.”

“What really happened. Dad? Do you know?”

“Space Explorers are part of my Space Research Department, of course,” the scientist said. “But they come and go as they please. We leave them alone most of the time. When they have something to report, they come to me.”

“What was he working on?” Jim asked.

“A very strange project. He sensed that there was intelligent life in the Solar System. Besides ours, I mean. He was very sure of it.”

“Why do you say he sensed it?” Ken asked. “That’s a strange way of putting it, isn’t it?”

“Most Space Explorers are what we call sensitives,” Dr. Barry explained. “They have a feeling about things you might call it a hunch and they go exploring for it.”

“And Captain Allen went looking for this mysterious form of life?” said Ken.

“Yes, and he vanished!”

The Cat was rolling along the road at a good speed. The walls of the crater Copernicus loomed ahead. Off to their right they could see the peaks of the Carpathian mountains. A dirt road branched away from the main highway.

“That goes to the mountains,” Keith Barry said. “On the way, it passes the Graveyard of Space.”

“We heard about that place from Dig,” Ken said.

Ten minutes later the Cat was rolling up a steep grade into a tunnel that had been cut through the side of the crater.

When they emerged from the tunnel, they were inside the crater, coming down a winding road to the flat, circular floor of the bowl.

“That’s the observatory and the main Labs,” the scientist said, pointing out a great domed building close to the center of the crater.

Beside the domed building stood the massive radio-telescope, capable of probing the farthest reaches of outer space.

“The rest is underground,” their father said as he turned

the Cat toward an open airlock.

When they had gone through the airlock and put the machine away, the scientist showed them the elevator.

“Cuts right through the rock,” he said. “Took years to make.”

They stepped into the elevator compartment and within seconds were carried several thousand feet upward. When they reached their floor, the boys were surprised to find that the building resembled a typical apartment house back on Earth.

“I know,” said Mrs. Barry. “You expected something very different. Well, boys, our apartment is quite ordinary... and comfortable.”

The rooms were large, carpeted from wall to wall and furnished with simple plastex furniture. Except for the view of the Moon's weird landscape through the glassteel window, Jim and Ken could easily have believed they were back on Earth.

“All the comforts of home,” Jim said.

“This is home,” his mother corrected him. “You mean the comforts of Earth.”

“Well, while you get settled, I'll run back to the Lab,” Dr. Barry said. “This is just the middle of my working day.”

“Don't be late for dinner,” Jane Barry reminded him.

“I won't. Good-by, boys.”

When he had gone, Mrs. Barry took the boys on a tour of the rooms. They ended up in the bedroom Jim and Ken were to share.

“Well, how do you like our home?”

“I like it fine,” Ken said.

Suddenly a new voice broke in.

“May I come in?”

A boy with bushy blond hair was poking his head into the room.

“Come in. Woody!” Mrs. Barry called.

“I saw the Chief,” Woody said. “And he told me to go right in. Said the Earthlings had arrived. A fact which I

now observe!”

He was a tall, gangling boy who looked like a floor mop turned upside down. His body was thin as a stick, his head crowned with a startling quantity of hair that stood out in every direction. There was a merry twinkle in his eyes and a grin on his face.

“Meet Woody Weston,” Jane Barry said. “Woody's father works in Space Medicine.”

“Hi, Earthlings!”

“Glad to meet you...”

“I thought I'd take you Earthlings out for a ride or something. Show you the sights...”

“We just got here,” Jim began.

“Nonsense, Jim! You and Ken go ahead. Woody's been waiting for you for months!”

“Okay, Mom. I'd like to look around,” Jim said.

“Me, too.”

“Then it's settled!” Woody said. “Follow me!”

Woody chattered all the way down to the garage where the Cat was parked.

“Glad you finally got here,” the blond boy admitted. “It gets mighty lonely out here. Not many boys our age on the Moon.”

“Where are you taking us?” asked Jim.

“Thought I'd teach you to handle a Cat,” Woody replied.

“Dad explained it to us on our way here,” Ken said.

“Then you can practice. Come along. We'll take yours. Dad's using ours.”

He swept them into the Cat, started the engine, and expertly maneuvered the machine through the airlock. Outside, he turned to Jim.

“Take over, and head for the wild yonder!”

Jim eased into the control seat and headed the Cat toward the tunnel. Once on the main road, he stepped on the accelerator.

“What's the rush, Jim?”

“Have you ever been to the Graveyard of Space?”

“Once. And it was enough for me.”

“What's the matter with it?”

“Haunted, that's what's the matter. The ghosts of spacemen lost in the deep black void come back to their old ships.”

Ken laughed. “You don't really believe in ghosts, do you, Woody?”

“Of course not!” Woody retorted. Then he scratched the mop of hair on his head and added, “But they're out there, just the same!”

Jim and Ken burst out laughing, and after a moment. Woody joined in. Jim stepped up the speed.

“A friend of ours used to play in the Graveyard when he was a little boy,” Jim said. “There's nothing to be afraid of.”

“Who?” Woody asked.

“Oh, a fellow named Dig Allen,” Jim replied casually.

“Dig Allen! The stow... stowaway?”

“Yep. We met him on the *Pioneer*”

“Then he did stow away!”

Jim nodded. “Sure.”

On the way, the boys told Woody the story of the search for Captain Allen. When they reached the dirt road, Jim turned the Cat into it. He handled the controls easily and confidently.

Within a few minutes, they saw the giant hulks of spacewrecked ships in the distance.

“That first one is the *Silver Arrow*,” Woody said. “They brought her in about a year ago.”

A few minutes later Jim brought the Cat to a stop beside the twisted wreckage of the great spaceship.

In silent awe, the boys gazed about the field. Wrecks lay everywhere. The ground was covered with the bent and torn hulls of ships, steel girders, ripped tail fins, and burned out rockettubes. The appalling sight stretched for miles, forming a dismal, sinister landscape.

Ken sighed. “Whoever named it the Graveyard of Space

knew what he was talking about.”

“Now that you've seen it, let's get out of here,” Woody said.

“Does anyone come here?” Jim asked suddenly.

“No. Only space outlaws or fellows like us, touched in the head.” He tapped his forehead to make his meaning clear.

“Well, there's someone out there!”

“Huh?”

“Look! Prowling around in the wreckage of the *Silver Arrow*!

“Hey, you're right,” Ken cried. “I wonder what he's doing.

Woody stared open-mouthed, too stunned to say a word.

A figure dressed in a spacesuit was poking around the wrecked control room of the passenger ship. Suddenly turning to look around him, the mysterious prowler spotted the Cat and its three startled passengers.

In an instant he had leaped to the top of the ship's hull. He turned for a second look at the Cat, then dropped on the other side of the wrecked spaceship and was gone.

“Let's blast out of here!” Woody cried and grabbed the controls.

4 Message From Mars

LATER, after dinner, Jim and Ken told their father about the visit to the Graveyard and the mysterious prowler.

“Good thing you boys got out of there fast,” Dr. Barry said.

“No telling who that man was.”

“Are there really outlaws hiding in the wrecked ships?” Jim asked.

“The Space Guards have never caught any, so we don't know for sure. But there are space outlaws on Mars and Venus, and it's possible there are space outlaws here, too.”

“So that was an outlaw...” Jim began.

“Now wait a minute,” his father interrupted. “I didn't say that. It could have been a harmless old spaceman. Many of the old-timers aren't happy retired to Earth.”

“Do they come and live in the old wrecks?” asked Ken.

“It may be junk to us, Ken. But to old spacemen it's a world of glorious memories. Those are the ships in which they sailed the mighty spaceways.”

“Enough of this,” Mrs. Barry broke in, laughing. “We live by Earth time, here. And the chronometer says it's time for bed.”

“Aw, Mom, we're not tired.”

“To bed!”

The boys laughed. “Same old Mom!”

The bedroom was darkened by shades to keep out the harsh sunlight of the Lunar day. The boys undressed in silence. As they were getting into their beds, Jim turned to his brother.

“I can't get that man out of my mind,” he said. “He wore a yellow spacesuit, just like Dig's.”

“I've been thinking about that, too.”

“Dig could recharge his oxytanks at one of the wrecked ships,” Jim said. “And it would make a perfect hiding place for him.”

“There's one way we can find out,” Ken suggested. “We can go there and look for him!”

“I know.”

They talked for a long time before falling asleep.

In the morning, the boys awoke to find their mother standing over them.

“So you two spaceheroes weren't tired,” she greeted them.

“You slept for a solid twelve hours.” Jim sat up and yawned.

Burry up and get dressed. You've got a visitor. Woody?”

“No. Sergeant Brool of the Space Guards.”

Both boys were suddenly wide awake.

“Now dress and come to breakfast.”

Mrs. Barry left and the boys jumped out of their beds quickly. Their new plastex clothes were hanging in the closet. They put on the tight-fitting trousers and tucked them into their heavy spaceboots. The blouses had open collars with roomy sleeves that buttoned at the wrists.

“Well, we almost look like spacemen,” Jim commented drily as they went in to breakfast.

They greeted Sergeant Brool uneasily, but he gave them a warm smile and a wink.

“So you told your father about Dig Allen,” he said.

“Is there any news, sir?” Ken asked.

The Guardsman frowned. “Not a word. But I didn't come here to talk about Dig Allen. I want to start teaching you spacemanship. It's part of my job, you know,” he added, the frown turning into an unexpected smile.

Jim and Ken glanced questioningly at their father.

“I've already given my permission.”

Then we're ready right now!” they both shouted.

“Not until you've finished your breakfast,” Mrs. Barry said placing two plates of steaming ham and eggs before the boys.

While they were eating, the doorbell rang. A moment

later Woody came charging in.

“Hey, Earthlings! There's a Space Guard Cruiser in the crater!” he cried. Then his eyes fell on Sergeant Brool and he finished up weakly, “Oh, you know?”

“Sergeant Brool is taking us up in the cruiser,” Jim told his friend.

“Wish I could go!” Woody looked toward the Guardsman, a pleading expression in his eyes. “I wish...”

“You can come along. Woody. But stay out of my food locker.”

“Yes, sir!”

“And no stories about space ghosts,” the sergeant added.

“I shall be as silent as the spaceways, sir,” Woody promised.

On their way to the Space Guard Cruiser, they stopped at the supply room where the sergeant checked out their spacesuits.

“Control switches are on your spacebelts,” he told them. “The belt pouches also have emergency food concentrates, tools, medikit and just about anything else you might need.”

The boys ran their fingers over the bulging pockets. The spacesuits felt heavy and clumsy.

“Helmets on.”

“Right,” Ken replied.

“From now on,” the sergeant said sternly, “you will use spacemen's language. The proper reply to my orders is 'Aye, aye, sir!'” Is that clear?”

“Aye, aye, sir!” the boys replied.

Once the air was pumped out of the lock, the spacesuits lost their feeling of clumsiness. The material was soft and flexible, and the boys found they could move about easily.

They struck out across the rocky floor of the crater in single file behind Woody. The Guardsman walked last, keeping a close watch on Jim and Ken. It was the first time the boys had ventured out in a spacesuit and the sergeant

studied their movements carefully.

The Space Guard Ship *Galahad* was a squat rocket-shaped machine, a good deal smaller than the passenger ships. She had a blunt nose and short, wide tail fins.

A wire ladder was hanging down from the open airlock hatch. Following Woody, Jim and Ken climbed up the ladder and into the airlock.

When they were all inside. Sergeant Brool closed the outer hatch and started the air pumps. A minute later the air pressure registered normal on the spacehelmet gauge.

The Guardsman took off his helmet and opened the inner hatch to the corridor.

“Stow your gear in the locker,” he ordered. “I’ll be up on the control deck.”

He climbed the wall cleats quickly and disappeared through the hatch into the compartment above.

“Funny how we have to climb up and down when the ship is on land,” Ken remarked as he put away his spacesuit. “Once in space, we walk along the walls and find it natural.”

By the time the boys joined the Guardsman in the control cabin, the reactors were already humming with power.

“A spaceship is like a robot,” the Guardsman told the boys.

“You have to learn how to give it orders. Then the ship takes care of everything by itself.”

The boys stared at the bewildering array of instruments on the pilot’s control panel. Gauges, pressure dials and rows of meters ranged the half-circle panel in front of the pilot’s seat. Knobs and switches were everywhere. Several banks of telescreens and oscilloscopes flanked the instrument panel.

Jim and Ken stared helplessly at the mass of instruments. Behind them, Woody watched a big grin on his face.

“Standard operations are all recorded on tapes, and these buttons,” the Guardsman pointed, “tell you what they

are.”

He pressed one of the buttons.

“I’ve just fed the tape for blast-off into the robot gyroscope,” he said. “When I release the power lever, the *Galahad* will blast off automatically.”

“It... it’s simple, sir,” Jim said. “That is, if there’s nothing more to it.”

“There’s a great deal more, Jim, but only if the ship doesn’t operate smoothly. If everything is working fine, then that is all there is to it.”

“And if there’s trouble?” Ken asked.

“You cross your fingers and call for the Space Guard,” Woody broke in.

“That’s about it until you learn to repair and handle the ship manually,” the Guardsman said. “That will take a long time and a lot of study on your part.”

“We’ll do it, sir!” Ken said.

“I know you will,” the sergeant replied. Then turning to Woody, he ordered, “Stand by the radar scanner.”

“Aye, aye, sir!”

“Check clearance!”

“Blast-off vector all clear, sir. Up and away!”

“Blast-off five seconds! Four... three... two... one... zero!”

The Guardsman pulled the handle of the power lever. A shudder ran through the ship. Powerful blasts of flame roared from the rockettubes and heaved mightily against the ground.

The ship rose, slowly at first, then faster and faster. The roar of the jets continued for almost a minute, then cut out. The sudden feeling of being without weight indicated that they were in space.

Through the viewport, Jim and Ken looked at the blackness of space and the countless pin-points of light which were the distant stars.

“Take a look at the videoscreen,” Woody called.

He had focused the rear scanners and the screen

showed the bleak landscape of the Moon falling rapidly away from them.

“Now for the landing operation,” the Guardsman said.

“There's a button that will feed the landing tape into the gyrobot.”

He pressed the button, then placed his hand on a small lever beside the main power release.

“First I use the nose rockets to break our speed!”

He pulled the lever and as the nose rockets exploded, the ship stopped moving away from the Moon. A few seconds later, the image of the Moon began to grow larger on the videoscope.

“We're being pushed back to the Moon,” the sergeant said.

He pulled the main power release lever and then sat back, a smile on his lips.

“The gyrobot will land us safely,” he said. “Magnetic and photo-electronic computers will gauge our speed of landing and even select the place for touchdown.”

They waited, and within seconds the tail rockettubes exploded with force. The ship sank down slowly, balancing on a fiery tail. As the fins touched the ground, the rockettubes cut out.

Sergeant Brool rose from the pilot's seat.

“Jim, take over the controls!”

“What? Me?”

“Not what!” the sergeant roared. “Say, 'Aye, aye, sir!’”

“Aye, aye, sir,” Jim said meekly and took the pilot's seat.

“Remember everything I did,” the Guardsman said.

Jim gulped. “Stand by radar scanner,” he whispered.

“Aye, aye, sir!” Woody called out.

“Check clearance.”

“Blast-off vector all clear, sir. Up and away!”

“And where do you think you're going, Jim?” the Guardsman asked.

“Why, sir, Im blasting off.”

“Not until you've fed in the blast-off tape!” the Guardsman ordered sternly.

“Oh, I forgot...” and hurriedly pressed the button.

“Well, don't forget! Or you'll find yourself digging a hole into the Moon!”

“Aye, aye, sir!” Jim placed his hand on the power lever. “Blastoff in five seconds! Four... three... two... one... zero!”

He released the power and once again the *Galahad*-leaped spaceward on a fiery stream of explosions.

They drifted in space for several minutes. Then Sergeant Brool ordered Jim to land the ship.

The boy punched in the landing tape, released the nose rockets and then pulled back on the main power lever.

The ship landed smoothly and Jim looked up at Sergeant Brool.

“If you expect compliments, Jim Barry,” the sergeant said, “you'll have to find them somewhere else. Your blast-off was poor. The landing will do for a first try.”

“Aye, aye, sir.”

“Ken, take his place,” the sergeant ordered.

“Aye, aye, sir.”

He took the seat vacated by his brother and quickly fed in the blast-off tape. But as he reached for the power lever, there was a sharp buzz from the speaker.

Surprised, he turned to the Guardsman.

“Did I do something wrong, sir?”

“No, Ken. That's a call for me.”

Sergeant Brool leaned over the boy's shoulder and flipped the communicator key. Almost at once, a voice came over the loudspeaker.

“Luna Control calling Space Guard Cruiser *Galahad*. Come in. Sergeant Brool.”

“Space Guard Cruiser *Galahad* reporting, Luna Control. Contact made. Sergeant Brool speaking.”

“Corporal Jon May on duty, sir. We have a report

relayed from the Mars Space Guard Control. Staff Command to Sergeant Brool. Please tape this message for the record.”

The sergeant pressed a button beside the microphone.

“Ready to receive. Message being recorded.”

“Message relayed from Mars follows. Quote: Spaceship found drifting near edge of the Asteroid Belt. Space Explorer type. May be ship belonging to Captain Boyd Allen. Unquote. That is all, sir.”

“Message recorded. Corporal. End transmission.”

With a flip of his finger, Sergeant Brool closed the communicator key. He turned to the three boys, his face suddenly tired and pale.

“You heard,” he whispered in a husky voice. “They found the *Viking*... adrift in space!”

5 The Graveyard of Space

BLAST off Ken! We're returning to Copernicus!" the Guardsman ordered.

"Aye, aye, sir!" Ken punched in the take-off tape.

"Check clearance!"

"Blast-off vector all clear, sir. Up and away," Woody called off mechanically.

Ken released the power lever and the rockets thrust the squat cruiser into space. When the rockets cut out and they were drifting above the surface of the Moon, Sergeant Brool turned to Woody.

"Keep a sharp lookout on the radar screen," he ordered. "Report approach to Copernicus at fifty miles."

"Aye, aye, sir."

The Guardsman looked at the brothers.

"Do you have any idea of where Dig Allen might be?" he asked. "It's important that he know about the finding of his father's ship."

"Well, sir, there was something," Jim replied. "Dig told us about the Graveyard of Space."

"Go on," the Guardsman encouraged as Jim paused.

"I was thinking about it, sir. Yesterday we saw someone prowling around there. He was dressed in a yellow spacesuit. The same color Dig had on when he got off the *Pioneer*."

The Guardsman rubbed his chin thoughtfully. "There are hundreds of yellow spacesuits on the Moon. But it might be worth looking into."

"Copernicus Way, fifty!" Woody called out.

"Feed landing tapes. Ken!"

"Aye, aye, sir!"

"Blast nose rockets!"

"Aye, aye, sir." Ken pulled the lever and the *Galahad* began to drop groundward.

“Release power lever!”

“Aye, aye, sir!” Ken obeyed the order.

“Get into your spacesuits.”

While the boys slipped into their spacesuits, the *Galahad* touched ground. The sergeant immediately punched in the blast-off tapes.

“Run for cover the moment you get on the ground!” the Guardsman ordered. “I’m blasting off for the Space Guard Station at once.”

“Aye, aye, sir!”

The boys clamped on their spacehelmets. Jim paused before putting on his helmet.

“Sarge, will you let us know if there’s any... any news about Captain Allen?”

“I will. And if you should find Dig at the Graveyard, well, try to get him to contact me.”

“I’ll do my best, sir!”

Jim put on his spacehelmet and joined the others in the airlock. As soon as the outer hatch could be opened, the boys climbed down the wire ladder.

On the ground, they broke into a sprint that carried them in great leaps away from the spaceship. They didn’t stop until they felt the ground shake from the rocket explosions.

The *Galahad* was rising at an increasing speed, hurtled into space by the raging torrent of flames.

In another moment, the flames disappeared. Far above them, they could see the silvery form of the ship soaring into space.

“Well, we might as well go home and get something to eat,” Woody said, his voice tinny over the radicom earphones.

“We can eat aboard the Cat,” Jim replied, breaking into a run toward the airlock.

“Why aboard the Cat, Jim? There’re only food concentrates there,” Woody said.

“Because we’re going to look for Dig Allen at the

Graveyard of Space!”

“Are you coming?” Ken called.

“You're both spacegoofy!” Woody cried. “You can't go snooping around there! It's dangerous!”

“You don't have to come with us,” Jim said, “So long, Woody.”

“We promised to help Dig if we could,” Ken told him. “And now that we can, we're going to find him.”

Woody didn't reply. He remained standing, looking after his two friends who were almost at the hatch of the airlock.

“I can't let you Earthlings wander over the face of the Moon alone,” he finally said. “I'll go with you. Someone has to make sure you two don't get lost!”

Five minutes later the Cat was speeding up the winding inline toward the tunnel that cut through the wall of the crater.

Jim was at the controls while Ken sat beside him. In the rear, ' Woody was preparing sandwiches.

“Concentrates instead of a nice home-cooked meal! Why do I let myself get talked into such things!” Woody grumbled.

Jim and Ken had their heads together.

“Why didn't the message say right out that it was Captain Allen's ship?” Jim asked. “It could be another ship.”

“You saw the look on Sergeant Brool's face. He didn't have any doubts. I tell you it was Captain Allen's ship!”

“What I can't understand is how a Space Explorer let his ship drift away,” said Woody as he came up with the refreshments in time to overhear Ken's words.

“Maybe he couldn't help it. An accident.”

“Or maybe... just maybe,” Ken said slowly, “he's inside.”

The rest of the trip to the Graveyard of Space was made in gloomy silence. When they reached their destination, Jim brought the Cat to a halt beside the wreck of the *Silver Arrow*.

“One of you will stay on the Cat,” Woody said. “And one will come with me to search the place. I’m more experienced on the surface of the Moon.”

Ken shook his head and glanced at his brother. They had developed a strong liking for the gawky Woody in the short time they had known him. They trusted him and were learning to depend on him. But this was their responsibility.

“No, Ken and I are going,” Jim said. “It was our idea.”

“But I can be more useful. . .”

“Dig Allen knows us. Woody. He can recognize our voices over the radicom. You stay. We’ll go.”

Woody didn’t like the idea of being left behind, but he finally agreed.

“I’ll be ready to call the Space Guards in a second,” he said.

“You keep in contact with me. No hero stuff.”

“Aye, aye, sir!” Jim laughed, slipped on his spacehelmet, and followed Ken into the little airlock.

The gray dust was ankle high when they stepped out of the Cat. Each movement raised a swirl of the powdery sand. It remained hanging for a while, then slowly settled back to the ground.

“We’re leaving a good trail behind us,” Ken remarked. “We won’t have any trouble finding our way back to the Cat.”

Jim went first, walking slowly around the wreckage of the *Silver Arrow*. Beyond, as far as they could see, the ground was covered with the remains of spaceships. Far in the distance, towering above the rest, stood the old ships which had been brought there under their own power.

“Now what kind of a wreck would Dig pick to live in?” Ken asked after they had been walking aimlessly for several minutes.

“It would have to be in pretty good condition.”

“That’s what we have to look for.”

Jim pointed ahead. “How about that one?” he asked.

“Seems to be in good condition except for the stern.”

“No good,” Ken replied. “The engine and power supply are in the stern. That wreck wouldn't have the power to work the air conditioning machinery.”

They walked past the wreck and found another passenger ship a short distance beyond. It seemed in perfect condition except for a great jagged rip amidships.

“Let's look into that one,” Ken suggested.

As they drew closer, they saw that the gash in the ship's side was large enough for them to go through. It cut almost completely across the ship, revealing the passageways leading fore and aft. The two boys entered and turned toward the stern.

The gray dust had somehow sifted inside and covered everything. An eerie stillness hung over the place.

Ken, who was ahead of his brother, suddenly stopped and stared at the floor.

“Look at this, Jim,” he said, pointing to dust at his feet. “Looks like someone's been here before us.”

Jim crowded past his brother. “Footprints!” he cried.

“They seem to lead back to the engine room,” Ken said. “If they are footprints.”

“They're footprints, all right. You can see how the dust is disturbed, left, right, left, right. Like someone walking. The dust settled down again and covered the prints.”

The trail led to the engine room and the boys followed it cautiously. The dust was disturbed everywhere as though several people had spent a good deal of time in the room.

Ken entered the engine room and looked at the rows of machines.

“Someone was working on these machines. But why?”

“Maybe that will explain it,” Jim replied. He pointed to a hole in the deck neatly cut away with an acetylene torch. “Isn't that where the atomic reactor is usually placed?”

“Yes, and someone took it out!”

“What else is missing, Ken?”

The younger boy went over the engine room carefully.

When he came back to his brother, he had a puzzled look on his face. Jim stared at him through the glassteel crystal of the spacehelmet.

“What's the matter. Ken?”

“Besides the atomic reactor, the air purifying system has been taken out. And also the sun-power accumulator!”

“The sun-power accumulator?” Jim was thoughtful for a moment. “That's mostly used in space. It stores power from the sun's light, cools the hull on the sunward side of the ship and warms the dark side.”

“Why would someone living on the Moon need it?” Ken asked. Then answered his own question. “Because he planned to go into space!”

“The machinery must have been carried out of here!” Jim exclaimed. “There should be a trail, Ken. Let's find it!”

A heavy track in the dust led from the engine room toward the stem rocketubes. Something heavy had been dragged that way.

The boys followed the marks in the blanket of dust until they reached the rocketube chamber.

“Look!” Jim cried. “We're right so farF

Two of the rocketubes had been burned away to make a large opening in the stern of the spaceship.

They stepped outside and saw the track in the dust.

“The machinery was dragged this way,” Jim said excitedly.

“Let's follow it!”

They followed the deeply gouged-out trail for nearly a mile, going deeper into the mass of wreckage. Suddenly they halted in dismay. Before them the trail disappeared in a cloud of dust. Someone had recently wiped away the track. Dust was still floating about and settling slowly to the ground.

“Someone doesn't want us to follow the trail!” Jim exclaimed.

“He must be near,” Ken cautioned. “And can hear every word we say over the radicom!”

“That's right,” Jim agreed. “Whoever the spacebandit is, I'm not afraid of him!”

“Jim!”

“That's what I think, Ken. He's a coward and a sneak!” Jim shouted over the radicom speaker.

He put his spacehelmet close to Ken's and winked at him. “I guess you're right,” Ken said. “He is afraid to show himself!”

A strange voice suddenly came over the radicom earphones.

“By the rings of Saturn! Who do ye think we're calling all those names?”

“You! Whoever you are!” Jim cried, a grin on his face. “Come out and show yourself if you're not a coward!”

“That I will!” the voice cried angrily. “No one can call Captain Ahab McComber that and get away with it!”

A moment later, a figure in a patched brown spacesuit leaped to the top of a wrecked hull. He looked down and waved a gloved fist at the two boys. The next instant he landed at their feet in a cloud of dust.

“Hah! A pair of spacepups!” the man cried after catching a glimpse of their faces through the helmets. “Who are ye? What do ye want here?”

“Sorry I called you all those names. Captain McComber,” Jim said with a smile. “It was just a trick to smoke you out!”

“Explanation is good. I accept that!” the Captain said. “What are ye snooping about here for?”

“We're looking for a friend,” Jim began. “Digby Allen.”

The old space captain snapped at Jim, “He's not here! Get out! I never heard of him!”

“Then you are a fake, Captain!” Jim cried. “Dig played here when he was a little boy. Everyone knows him.”

“Hah! Trying to trick me again, eh? All right. I know him. Ever since he was no bigger than a Martian kangaroo!”

“Help us find him, please.”

“You lads got spunk,” the old man said. “Can I help? Maybe. I know this place as well as I know the spaceways! Come along!”

The old man turned abruptly and shuffled away through the dust which rose in lazy swirls behind him. The boys followed silently as he picked his way through the mounds of wrecked spaceships.

After some ten minutes of wandering about, the captain stopped before a small, squat wreck lying on its side.

“This here is the Space Freighter Columbia,” he said, swinging open the airlock hatch. “Was space-wrecked on her near twenty years ago. Lived aboard for two months, drifting in space. Space Guards finally picked me up.”

He led them through the airlock and into a passageway.

“Home now,” he said, showing them into a large cabin. “Nice and snug here. Got tapes. Got old books, real ones with paperplastic pages! Been studying and reading. Never had much time for it when I sailed the mighty deep.”

The old man chattered on, guiding the boys to the bookshelves built along the wall.

“Bet ye’ve never seen books like that, except maybe in a museum,” he said.

Ken, fascinated, took a volume from the shelf and flipped it open. It was a copy of a book published over a hundred years before.

“Look at that, Jim. I’ll bet any museum would be proud to have it.”

Jim turned to speak to the old captain. “Could we borrow...” he started to say, but stopped in surprise.

“He’s gone!”

They were alone in the room and the door was shut. Jim leaped. Even as he tugged at the handle, he knew it was no use.

They were trapped!

6 Dig Allen's Secret

THE VOICE of Captain McComber cackled over the earphones.

"Ye'll be snug there for a long time, lads!" the old man laughed. "Ye'll stay until I let ye out. And maybe I won't be letting ye out at all!"

There was a click as the old man switched off his radicom and the boys suddenly felt the silence press down on them.

"Take off your spacehelmet, Ken," Jim said. When the two boys faced each other without the awkward glassteel bowl over their heads, Jim continued.

"We've got to get out of here," he said. "But we can't talk about any plans over the radicom. Captain McComber might be listening."

He shut off his radicom. I heard the click." Then it's worth taking a chance on calling Woody to come and release us."

Jim put his spacehelmet on again and flipped the radicom switch.

"Calling C-521 Jim Barry calling C-521 Come in Woody Weston!"

Within seconds, Jim heard his friend's voice come through the earphones.

"I hear you loud and clear. About time you reported in!"

Woody replied. "I've been sitting here doing nothing but worrying!"

"Woody, get into your spacesuit and come out here."

"Where are you?"

"Inside the Space Freighter Columbia. You'll find our tracks in the dust. Just follow them."

"What are you doing?"

"Trying to get out. We're trapped inside the main cabin!"

"I knew it! I just knew you'd do some spacefool thing.

How did you manage to get yourself trapped?”

“We had help!”

“What?”

“Look, we'll explain later. Just get us out! And, Woody, don't use your radicom unless it's absolutely necessary.”

“All right. I'll be right out there. Don't go away!”

“Don't be funny!”

Jim took off his spacehelmet and told his brother about his conversation with Woody.

“Nothing to do but wait,” said Ken. He took a book from the shelf and was soon lost in its pages. Jim wandered to the viewport and stared out.

Fifteen minutes later, they heard Woody's magnetic boots clanging through the passageway as he came toward their door.

When the door to the cabin opened and Woody stepped in, Jim hurriedly signalled him to take off his spacehelmet.

“What's the mystery?” Woody asked, looking about warily.

“Not ghosts, I hope.”

“Not this time,” Jim laughed.

He told Woody about their discovery of the missing machinery and the meeting with Captain Ahab.

“I think Dig took that machinery to fit out one of the old spaceships,” Jim added. “And from the way Captain McComber acted when we mentioned Dig's name, I'm sure he knows all about it.”

“Then we better call Sergeant Brool right away!”

“No,” Ken broke in. “If what Jim says is true. Captain Ahab can lead us straight to Dig's hideout!”

“Or into another trap!” Woody protested.

“Ken is right. All we have to do is follow his trail!”

“All right,” Woody finally agreed with a gloomy shake of his head.

The boys put on their spacehelmets and went outside. Captain Ahab's tracks were plain. Evidently he had made

no effort to cover his trail.

The boys followed the marks in the dust and were soon moving toward the interior of the graveyard, past old hulks and piles of twisted metal.

Eventually they found themselves before a cleared area. Ahead was an old spaceship resting on her tail fins. A wire ladder hung down from the airlock.

Jim pointed to the tracks in the dust, leading straight to the old ship.

Woody and Ken understood his gesture and the next instant all three were sprinting across the intervening distance to the old spaceship.

They waited, crouched beneath the rockettubes of the ship, but there was no sign of movement about them. Jim took hold of the wire ladder and climbed up, careful not to bump his heavy spaceboots against the hull. Woody and Ken followed him up and into the airlock.

At a nod from Jim, Woody shut the outer hatch and started the air pumps. Presently the atmosphere was normal and the boys took off their spacehelmets.

“What if there's no air inside the ship?” asked Ken.

“The inner hatch won't open,” Woody told him. “If the equipment is working properly, that is.”

“And if it isn't?” Ken persisted.

“We'll blow up with the pressure inside us.”

“Then we'll put on our spacehelmets until we're sure.”

They adjusted the helmets and Jim opened the inner hatch. The bubbles inside their helmet gauges registered normal pressure.

Taking their spacehelmets off again, they began to explore the ship. The cabins showed signs that they were being used. They found parts of the atomic reactor coils in the machine shop and the remains of a meal in the small galley.

“My guess is that if anyone were on board, he'd be up on the control deck,” Woody whispered. “Follow me.”

“For a guy who's scared of ghosts and spacebandits, you

seem awfully anxious to take all the risks,” Jim whispered back. I’ll lead.”

He grabbed the wall cleats and began to climb up toward the nose of the ship. In the control cabin, the boys stopped.

“Where else can we look?” Jim asked. “This place is empty.”

“No, it isn't lad!” the reedy voice of Captain Ahab broke in on them.

The old man, a stun-ray gun in his hand, stepped out of a small doorway leading from the pilot's sleeping quarters.

“Captain Ahab!” Jim cried in surprise.

“Been waiting for ye! Heard the air pumps going!” The old man's eyes fell on Woody. “So that's how ye got out! There was three of ye!”

“Yes, sir,” Jim said. “Now suppose you tell us where Dig is!”

“Right behind you!”

The three boys spun around, startled.

“Dig!”

The red-headed boy was poking his head up through the hatch, a big grin on his freckled face.

“I've been following you up from below,” he said.

They shook hands and Woody was introduced. Captain Ahab, a smile on his wrinkled face, put the gun away.

“Well, I'll be a tail-less space monkey!” he cackled. “The lads were telling the truth all along, eh?”

“How do you like my ship?” Dig asked proudly. “Captain Ahab and I have been working on her. Got the best equipment there is installed here.”

“So that was your plan. Dig!” Ken said, looking at his friend.

“You were planning to outfit the ship and blast off to search for your father.”

“Yes. It's the only way to find him, now that the Space Guards have given up.”

“Well, you won't need it now,” Jim said, softly.

“What do you mean?”

Jim hesitated, then added gently, “They found the ship, adrift near the Asteroid Belt!”

Dig turned pale and lowered himself into the pilot's seat.

Captain Ahab came up to him and placed his hand on his shoulder. Dig turned his head and stared mutely into the old man's eyes.

“Adrift, lad. Ye heard it!” Captain Ahab said. “And you know well what the meaning is.”

“No, it was only the first report,” Ken said. “Sergeant Brool went to get more information.”

Dig turned to his friends. “Will you... will you call the Sarge and ask if there's more... news?” He gestured toward the control board. “It's working perfectly.”

“Why don't you call him?” Jim replied. “He wants to talk to you.”

“You know I can't! I'm in hiding!”

“Finding your father's ship changes everything,” Woody put in quietly. “And you know enough to trust the Sarge. Go on.”

Dig glanced at the tall boy. For once the mischievous light was gone from Woody's eyes. Instead, he stared at Dig with steady, serious eyes.

Without a word. Dig turned to the instrument panel and flipped the communicator key.

“Calling Space Guard Control! Calling Space Guard Control! Come in. Space Guard Control!”

“Space Guard Control in contact! Corporal Jon May on duty. Identify yourself.”

“Sergeant Brool requested, sir,” Dig said, ignoring the request for identification.

“Identify yourself, please!”

“Special call for Sergeant Brool. Refuse general identification.”

“Very well,” the Corporal replied. “Stand by!”

Presently the sergeant's voice came over the speaker.

“Sergeant Brool here. Come in, please.”

“This is Dig Allen, Sarge. Jim and Ken told me the... the news about the *Viking*...”

“I won't ask you where you are. Dig. Are Jim and Ken with you?”

“Yes, sir. And Woody Weston, too.”

“Listen carefully. Dig. I have a second report. The Explorer Ship has been identified as the *Viking*, your father's. It was found empty. No trace of Captain Allen. The Space Tug Hercules is towing it to Marsport. I am going there to meet the tug and inspect the ship.”

“Is it... is it possible for me to go with you, sir?” Dig asked, his voice hardly above a whisper.

“I have already asked for permission to take you,” the sergeant replied. “I'm waiting for clearance right now.”

“You know where I am, sir?”

“I don't want to know. Where can I meet you?”

Dig glanced at Jim and Ken. “Is it all right if we meet at your place?”

Both boys nodded silently.

“You heard, sir?” Dig spoke into the microphone. “At Copernicus.”

“Right!” the Guardsman said. “End transmission.”

“End transmission.” Dig closed the switch.

“Our Cat isn't far from here,” Ken said. “Get your spacesuit.”

Dig nodded and went to the storage locker. He pulled out the yellow spacesuit and began putting it on.

“I'll be working on this here ship. Dig,” Captain Ahab said, watching Dig get into his spacesuit. “Just in case, eh, lad?”

“Just in case?” Ken asked, turning to the old man.

“In case he'll be a-needing it,” the captain replied.

“What does that mean. Dig?” Jim threw a sharp glance at his friend.

“If I can't go with the Space Guards, I'll go myself,” Dig replied grimly. “But I'll find my father! Nothing will stop me.”

Impressed with his determination, the other boys did not reply. Silently they prepared to leave.

Dig turned to the old spaceman and shook his hand.

“Thanks, sir, for all you've done for me,” he said.

“Thank me? What for? I've done nothing but help an old spacemate! Be off, lad! And when ye get to Mars, look up Old Dorkas! Now there's a man who might help ye!”

One by one the boys climbed down the wall cleats to the lower decks. Old Captain Ahab remained in the control cabin, looking down through the hatch, a sad expression on his wrinkled, weather-beaten face.

Outside, Dig Allen took the lead and quickly brought the group out of the confusion of wrecks. Soon they were climbing into the Cat.

Jim took the controls and headed the clumsy vehicle toward the crater Copernicus. Ken and Woody gathered around Dig.

“Who is Old Dorkas?” asked Ken. “And how can he help you?”

“Captain Ahab thinks that if there's anyone who can figure out the meaning of Dad's last message. Old Dorkas is the man. Especially what number 433 means.”

“Where can you find him?” asked Woody.

“Last time Captain Ahab heard from him. Old Dorkas was living in Spaceman's Roost, down by the Main Canal in Marsport.

Woody whistled softly. “Spaceman's Roost, eh? I've heard of the place. You're not thinking of going in there!”

“First chance I get,” Dig told them.

“What kind of place is it?” asked Jim, taking his eyes off the road for a moment.

“The kind of place where you can get your throat cut

very easily!" said Woody.

When the boys arrived at the Barry apartment, Mrs. Barry was setting the table for dinner. Extra places had been prepared for all the boys.

"So you're Dig Allen," she said, greeting the slight, red-haired boy. "I'm glad you came here. You must consider our place your home for as long as you wish."

"Thank you, Mrs. Barry."

"Mom! How did you know we were bringing Dig home?" Ken asked, noticing the extra plates at the table.

"Sergeant Brool called on the visiphone and told me you were all coming here. And he gave me a message for Dig," she said. "'Permission granted.' That's the message."

"I go to Mars!" Dig cried happily.

"And he also said," Mrs. Barry went on quietly, "that Jim and Ken can come if they wish. Father and I think it's all right," she said, turning to her sons, "and you have our permission to go."

Woody exploded with a cheer, but Jim and Ken were too stunned by the good news to make a sound.

7 The Ghost Ship

IT was after dinner and the first shadows of the long Lunar night were beginning to creep across the floor of the crater when Sergeant Barry landed the *Galahad*.

The two brothers were in their room, packing for the trip, when Woody ambled in to tell them the sergeant was on his way.

“What's Dig doing?’ Jim asked.

“Moping at the window,” Woody replied.

“Well, you don't look so happy yourself,” Jim said.

“I know.” Woody shook his head. “You guys get here and no sooner do I get to like you, when whooosh! you're blasting off for Mars!”

“Oh, we'll be back in two weeks at the most,” Jim consoled his friend. “Come on, cheer up!”

He tossed his pack over his shoulder and went into the living room.

Dig, at the huge window, turned and gave him a quick smile. In many ways, Dig had always been lonely. His strange life among grownups dedicated to the spaceways gave him little time or opportunity for companions his own age. He was grateful for his three new friends and for the loyalty and support they had given him at the very time he felt most alone.

“All set?” Keith Barry asked, coming into the room.

“Yes, Dad,” Jim and Ken replied together.

“Is Sergeant Brool here already?” Mrs. Barry asked with a sigh as she, too, joined them.

Before the boys could reply, the doorbell rang. A moment later Sergeant Brool strode into the room, still dressed in his spacesuit, but carrying the helmet under his arm.

He greeted them all in a quiet, somber manner and then turned to the boys.

“We haven't much time. Ready?”

“Aye, aye, sir!” they replied at once.

“Then let's go!”

They said their farewells quickly, and Mrs. Barry kissed each of the three boys.

“I'll watch you blast off from this window,” Woody told them as they left.

On the way to the airlock, Sergeant Brool found an opportunity to whisper to Jim and Ken.

“I'm glad you boys could come along. This is going to be pretty hard on Dig and he'll need good friends to stand by him.”

“We understand, sir,” Ken replied.

The rest of the way they went in silence. Inside the airlock of the *Galahad*, while they were waiting for the atmosphere to reach normal. Sergeant Brool finally broke the silence.

“I expect complete space discipline,” he said. “Dig is second in command.”

“Aye, aye, sir.”

Dig led Jim and Ken to a small cabin with four neat bunks folded compactly into the wall. Beside the bunks were lockers and he showed them how to stow away their belongings.

Up in the control cabin, Sergeant Brool had started up the reactors and the powerful engines could be heard throughout the ship.

“Gee, let's get up there and watch the blast-off!” Jim said.

“Come on! Or we'll be too late!”

“Never mind the sight-seeing, Jim,” Dig said. “We're under space discipline now. There are certain duties for which each one of us will be responsible. Sergeant Brool will blast off without our help.”

“But Dig...”

“Finish stowing away your gear!”

“Aye, aye, sir!”

By the time they had finished putting their things away, the *Galahad* was already hurtling through space.

“Now let's report to Sergeant Brool,” Dig said with a smile as his friends turned to him.

On the way to the control cabin, he explained the need for discipline on a space voyage.

“It's hard being cooped up in a spaceship for days and weeks,” Dig said. “A regular round of duties has been worked out and we follow the schedule strictly. Twice every twenty-four hours we inspect the ship from the nose rockets down to the tail fins.”

“Isn't that over-doing it a bit?” Jim asked.

“No, we've got to anticipate any trouble in our engines and fix things up before an emergency develops. And besides, we sometimes run into meteors or spacejunk, sometimes no bigger than dust specks.”

“How can those things hurt us?”

“They hit the ship at speeds of thousands of miles a second. Tiny punctures let the air seep out. You can't see the holes, but as you walk through the ship, you'll feel the slight air movement. We have to repair them constantly.”

“That doesn't take all day, though,” Ken said.

“We also have a regular plan of studying,” Dig continued.

“Oh,” Jim said, without enthusiasm. “Studying.”

“Every spaceman studies continuously,” Dig told his friend sharply. “That's our tradition. That's how we learn more and more about the spaceways and our Solar System.”

“You mean Space Explorers?” Ken asked.

“Yes.”

“I haven't really thought about it,” Ken said slowly. “But I think I'd like to be a Space Explorer.”

“Well, it's worth thinking about,” Dig said.

In the control cabin, Sergeant Brool was sitting hunched over the star charts. He didn't look up when the boys came in.

“Reporting for duty, sir,” Dig announced.

“Select study tapes for Jim and Ken,” the Guardsman told him.

“Aye, aye, sir,” Dig replied. Then, as he was about to turn away, he asked, “May I ask our course, sir?”

The sergeant dropped the astro-calipers he was holding and swung about to face the boy.

“I plan to intercept the Space Tug Hercules somewhere between Mars and the asteroids,” he said.

“Then we're not going directly to Marsport?” Jim said.

The Guardsman glanced at him and smiled. “I think we can relax a bit on formal space discipline,” he said. “But usually, Kim, you ask for permission to speak while the pilot is on space flight duty.”

“I'm sorry, sir.

“That's all right,” the Guardsman said. “To answer your question, no. We'll land at Marsport after we've picked up the *Viking*. That should be in about seventy hours.”

“Seventy hours!” Ken exclaimed. “How fast are we traveling?”

“We'll accelerate at full space speed for the next ten hours. by that time we'll be hitting a speed of a little over a million miles an hour.”

Jim shook his head. “It's hard to believe we'll travel that fast.”

“Well, you'll believe it after you do a bit of studying,” the Guardsman chuckled. “Dig, get the study tapes.”

“Aye, aye, sir. I'll start them off with these two.”

He pulled out two cans from a wall cabinet and handed one to each of the boys. Jim received a can labeled “Fundamentals of Spacesuit Construction and Use.” Ken's study tape was titled

“Beginners Astro-Navigation” The boys read the names out and glanced at the Guardsman.

“You'll switch the tapes around when you're finished,” the sergeant told them. He turned to Dig. “Take over.”

“Aye, aye, sir. Come along. We'll make our first

inspection tour.”

The boys left and the Guardsman went back to work on his star charts. After a while, he raised his head and stared through the viewport at the distant stars. His thoughts leaped ahead to the silent ship found drifting in space and to the fate of Captain Boyd Allen. And he wondered, a worried frown on his forehead, how Dig would take the shock of boarding his father's empty ship.

Three days later, the *Galahad* had passed Mars and was hurtling toward the Asteroid Belt at full speed. Immersed in their studies and the regular round of duties, neither Jim nor Ken realized that they were fast approaching the area where they were to meet the Space Tug Hercules.

Toward the end of the third day. Sergeant Brool called the boys into the control room.

He turned first to Jim and Ken.

“How are you doing with your study tapes?”

“We know them backwards and forwards, sir,” Ken replied.

The Guardsman gave a nod and turned to Dig.

“Take over the controls, Dig. We should be picking up the Hercules on the long range spaceiver screen any time now. Keep a sharp lookout.”

“Aye, aye, sir.”

“As for you two,” the Guardsman said, turning back to Jim and Ken, “Break out your spacesuits.”

“Spacesuits, sir?” Jim asked, wondering. “Are we going spaceside?”

“Carry out your orders without question!” roared the Guardsman.

“Aye, aye, sir,” Jim replied meekly.

The two boys hurried off to obey the command, while behind them, Dig and the sergeant exchanged knowing smiles.

“Good stuff in those boys, Dig.”

“Aye, sir. I think they'll be Space Explorers some day.”

“That's quite a compliment, Dig,” the sergeant said,

rising to his feet. "Well, I'm going to give them some deep space drills."

The boys, dressed in their spacesuits, were waiting at the airlock when the Guardsman arrived. He got into his suit, then checked their equipment quickly.

"Into the airlock," he ordered.

As they waited in the airlock. Ken spoke to the sergeant over the radicom.

"Is it safe to go out, sir? We're moving faster than a million miles an hour."

"A million or ten, it makes no difference. We're part of the spaceship. The Earth moves around the Sun at more than 18 miles per second. But you don't even know it when you walk in the street or play ball or go swimming."

Ken thought over the information. "I never thought of it that way, sir. I guess that's because we're so much a part of the Earth."

When the air was pumped out, the sergeant opened the hatch and crawled outside. He was careful to keep the magnetos of his boots in contact with the hull at all times.

Jim poked his head out and looked around. Nothing moved. They seemed to be standing perfectly still. The blackness of space seemed to press in on him like a thick blanket.

Inside the spaceship, the walls made a great difference. Spaceside, a weird feeling of loneliness came over him, and the boy shuddered, though his spacesuit kept him comfortably warm.

"Hook your safety line into my belt, Jim," the Guardsman said calmly. "And Ken, you hook into Jim's belt."

"Aye, aye, sir," came from the younger boy.

The boys pulled out a length of the thin safety line from the compact reels at their spacebelts. Thin as a fishing line, and glowing with a luminous light, the thread-like line was strong enough to support five hundred pounds of weight on Earth.

"You'll feel dizzy at first," the sergeant said. "We'll cure

you of that by walking around the ship.”

Linked by the safety line, they walked in single file over the round hull of the ship. After they had circled the ship's waist several times, the boys no longer found it so strange to walk upside down. Of course, the ship was down to them at all times for it had some gravity, but in their imagination, they saw themselves walking up walls, head down.

The sergeant stopped and turned to the boys slowly.

“You'll find ring-bolts in the hull of the ship. Hook your safety lines into them.”

He watched closely as the boys unfastened the safety lines from each other and snapped them on to the ring-bolts.

“To get off the ship in space, you simply dive as you would into a swimming pool.” The sergeant chuckled. “But remember space is a lot deeper than any swimming pool. Now watch me!”

The Guardsman crouched momentarily, then lunged, leaving the ship in a slow, graceful motion. Soon he was floating in space, moving away from the ship.

“To get back to the ship, I must first turn around,” the sergeant said. Though he was some distance away, his voice sounded comfortably near over the spacehelmet earphones.

The Guardsman brought his knees up to his chin quickly and his body turned a back flip. When he was facing the boys, head down, he straightened out his feet and the motion stopped.

“As you saw, I brought my knees up to my chin to somersault, and I stopped turning by straightening out again. To turn right side up so that I can land on the ship feet first, I kick out my right leg and punch with my right hand. Like this!”

He followed his words with the action and his body turned a half cartwheel. He brought his feet together and his arm to his side to stop his body from turning.

A moment later, he pressed a button in his belt. A spurt from his oxygen tank pushed him toward the ship, the air

streaming out behind him like the tail of a comet.

Seconds later, his spaceboots clicked against the ship's hull and he stood before the two boys.

“Now, you, Jim!”

“Aye, aye, sir,” Jim replied hoarsely. “Now, sir?”

“Right now!”

Jim crouched, preparing to jump. Suddenly Dig Allen's voice came over his earphones.

“Sergeant Brool! Calling Sergeant Brool!”

“What is it. Dig?”

“I've got them on the spaceiver screen, sir. The Hercules! And... and...” There was a sob in the boy's voice as he added, “And the *Viking*, too! The hatch is open! She looks like... like a ghost ship!”

8 Meeting in Space

FOR SEVERAL long, painful moments, there was silence. Then the crisp voice of Sergeant Brool crackled over the earphones.

“Chart a course to intercept the Hercules,” he said. “We’ll swing around and catch up to her without losing time. Contact the captain of the spacetug and inform him that we’ll board the *Viking*. He is to continue toward Mars at full speed.”

“Aye, aye, sir!” Dig Allen was again the trained spaceman, cool and alert. “And Sarge, I’m sorry for losing... for getting upset... I mean...”

“I understand. Dig,” the sergeant replied kindly. “Forget it There’s work to do. I want you to compute our rate of deceleration. Then begin to slow down gradually.”

“Aye, aye, sir.”

“That is all. Carry on.”

The Guardsman turned back to Jim and Ken.

“And we’ll carry on, too.” Then he stopped, surprised.

“Where’s Ken?”

“Here I am, sir. I... I think I’m floating in space, sir.”

“I’ll say you are!” the Guardsman bellowed.

Excited by the sighting of the long-sought explorer’s ship, Ken had paid little attention to safety precautions as he shifted his position on the hull of the ship. He never noticed that his feet were no longer firmly on the metal hull.

It was with a sudden shock that the boy realized he was adrift in space.

“Now tell me, what happened to you?” the sergeant asked sternly.

“I guess I was careless, sir.”

“And now, what are you going to do?”

“I can jet myself back,” Ken replied, his confidence returning. “The way you did.”

“Go ahead.”

Ken's feet were pointing downward toward the ship. If he jetted, he would float straight ahead, over the ship. He thought quickly, then kicked his feet backward forcing his body to turn. When he faced the ship, he straightened out his feet and stopped the movement of his body.

“Very good maneuver. Ken,” the sergeant said with admiration.

Ken jetted and began to move toward the ship. As he was about to land, he kicked his feet forward and the next second he touched the hull.

“Good,” the sergeant said. “Now you, Jim.”

“Aye, aye, sir!”

Jim leaped. Suddenly all confidence left him as he found himself falling down a bottomless void.

Now he knew that he was really in space. Even the little gravity of the ship had been enough to give his body a feeling of a normal down. Here there was not even that, and he lost all sense of direction. He fought to control the panic that almost swept over him.

“How long are you going to stay there?” asked the Guardsman.

Somehow, the Guardsman's voice calmed Jim. He took a deep breath and brought his knees up to his chin.

The distant stars began to revolve in the vastness of space. Presently the spaceship, with Ken and Sergeant Brool standing on the hull, came swimming into view.

He stopped his movement, then kicked his foot out to turn. He stopped himself from turning further when he was facing in the proper direction. A short burst from the tiny jets at his back forced him toward the ship.

A moment later his magnetos touched and held, and he was standing safely beside his companions.

He took a deep breath and sighed. Sergeant Brool laughed.

“Feeling better, Jim?”

“Yes, sir. It was scary out there!”

“You should know how I felt,” Ken said. “I was so scared, I was paralyzed!”

“It happens to all of us,” said the sergeant. “First time you're out in space in absolute zero gravity, everybody gets scared. It happened to me, too.”

They walked back to the airlock hatch.

“Both of you did well,” the sergeant told them when they were inside the airlock. “Next time will be easier.” Then the sergeant laughed. “There was no danger. Your safety lines were hooked to the ring-bolts all the time.”

Dig had recorded the new course on the tapes and was feeding them into the gyrobot when they came into the control cabin.

“Course set as directed, sir,” he reported, looking up from the instrument board. “Contact made with the Hercules and your instructions relayed to the Captain.”

“That's fine. Dig. Now take a break with Jim and Ken. I'll stand by the controls.”

“We should be coming up on the Hercules in six hours,” Dig said. “You'll... you'll call me, won't you?”

“Yes.”

The three boys left the control deck and shuffled silently down the passageway to their own cabin. Inside the little room they sprawled out on their bunks without undressing.

“I don't think I can sleep,” Dig said.

“Me either,” Ken murmured.

They lay quietly for several minutes, then Jim asked in a quiet tone, “What's it like. Dig?”

“What?”

“Being a Space Explorer.”

“Better than anything I know.”

“Isn't it sort of lonely?” asked Ken.

“With all the universe to explore?” Dig smiled. “No, you're never lonely. There's something new to discover all the time!”

Another long silence followed. Finally Ken murmured,

“I think I’m going to be a Space Explorer, too. If I can qualify “

“That’ll be great,” Dig said softly. “Maybe all three of us can stick together. How about it, Jim?”

But Jim was fast asleep. The cabin was quiet. Dig felt the low vibration of the rockets as the ship began to decelerate. He closed his eyes, and before long he too had fallen asleep.

The voice of Sergeant Brool coming over the loudspeaker awoke the boys.

“Rise and shine!” the Guardsman was calling. “Report to the control deck!”

Dig sat up quickly and looked at his two friends.

“How long have we been sleeping?”

“I’m rested,” Ken replied. “Must have been a long time.”

“Come on!” Jim scrambled to his feet and the others followed.

In the control cabin, the Guardsman was waiting for them.

He pointed to the viewport.

“There she is!”

They had completed a great half-circle so that they could come up behind the spacetug without reducing speed.

“I’ve already informed the *Hercules* that we’re going to board the *Viking*. We’ll be close enough to jump space in a few minutes.”

They watched through the viewport and waited. Some ten minutes later, the ships were floating side by side, no more than a hundred yards apart.

Sergeant Brool adjusted the controls on the board.

“The gyrobot will keep us steady at this distance,” he told Jim and Ken. Then he turned to Dig. “You’ll come aboard with me?”

“Yes, sir,” the boy replied. “Whatever we find there, I... I’ve got to know.”

The Guardsman turned to Jim and Ken.

“If you wish, you can come, too.”

“Aye, aye, sir!” both boys replied enthusiastically.

“Then suit up!”

Before they left the airlock, the sergeant gave them final instructions.

“Safety lines are to be hooked up at all times while we're spaceside. I'll jet across first. Dig will follow, pulling himself over with the safety line. Then Jim and Ken. Don't waste any of the air in your tanks to jet.”

“Aye, aye, sir.”

One by one, they followed the Guardsman outside. This time, neither Jim nor Ken felt any of the dizziness that had struck them when they first tried walking on the outside hull.

When they reached the side facing the deserted spaceship, the Guardsman motioned them to wait. The next moment he dived head first toward the other ship.

As soon as his feet touched the hull of the *Viking*, he called over the radiocom.

“All right. Dig. Pull yourself across!”

Dig leaped, then began to haul in on the safety line. As he moved across the intervening space, the reel at his belt took in the slack of the safety line. At the same time, Jim's line came out of his reel.

When Dig reached the other ship, Jim followed, pulling himself over. Ken came last and finally all four were standing on the hull of the Explorer Ship *Viking*.

“I'm going to check the outer hatch first,” Sergeant Brool called. “You boys stand a little behind me.”

A close inspection of the hatch followed. The Guardsman then entered the airlock cautiously, studying every part of the metal as he moved around. Finally he called to the boys.

“No damage of any sort here. The airlock is in perfect order.”

“May we come in now?” asked Ken.

“Yes. And close the outer hatch behind you.”

Another careful inspection began as soon as the airlock was sealed. The instruments turned out to be in excellent condition, too.

“We'll see how it works,” the Guardsman said, throwing the starting switch.

Through the floor they felt the perfect working of the airpumps. Soon the gauge registered normal atmosphere and they took off their spacehelmets.

“So far, there's absolutely' nothing wrong with this ship,” the Guardsman said to Dig. “Now we're going inside. We may find some explanation of your father's disappearance, or we may not. However it turns out, you must remember...”

He stopped, his eyes fixed on the boy's face. For a few seconds, they looked at each other silently. Then Dig nodded.

“Open the hatch, sir. I'm not afraid.”

The Guardsman pushed and the inner hatch swung open. A silent, empty passageway was before them. Dig stepped across the doorway and glanced up and down the corridor.

Then, without a word, he opened the spacesuit locker beside the airlock and began to take off his suit. The others zipped off their spacesuits and hung them up.

“We'll start examining the ship at the nose rockets and work our way aft,” the sergeant said. “Dig, keep your eyes open for anything that doesn't seem to be right. Anything at all, no matter how small or unimportant! Understand?”

Dig nodded and headed for the control cabin. The others followed behind him quietly.

Dig crawled through the forward cover-hatch and looked at the nose rockets. Then he examined every inch of the ship from the control cabin and the setting of the instruments, to the rear rockettubes and tail fins.

The search continued for over an hour. At the end, they gathered around the instrument board in the control room.

“Well, did you find anything wrong or missing, Dig?”

the sergeant asked.

“The tool kit is missing, sir,” Dig replied. “And Dad's spacesuit.”

“What about oxy tanks?”

Dig turned away before answering. “He only took one tank of oxygen.”

Jim and Ken looked at Sergeant Brool. His face was pale.

“Four hours of air to breathe!” the Guardsman whispered huskily. “And that was months ago!”

9 Spaceman's Roost

SERGEANT Brool had put into words the thought that filled their minds. The words escaped him accidentally and he was immediately sorry, but it was too late. A painful silence followed.

With a frown, the Guardsman stepped to the communicator, flipped on the switch and called the spacetug. His voice was harsh and angry as he spoke.

“Drop magnetic grapplers!” he ordered.

“Aye, aye, sir,” came from the spacetug. The captain of the *Hercules* was surprised and puzzled by the Guardsman's tone, but hurriedly obeyed the order.

Jim and Ken turned to the viewport and watched the magnetic disc drift slowly away from the *Vikings* hull.

“Magnetic grapplers away, sir.”

“Return to your station,” Sergeant Brool said. “The *Viking* will continue to Mars under her own power.”

“Aye, aye, sir,” the captain of the spacetug called. He hesitated for a moment, then asked, “Anything... anything wrong, sir?”

“Everything's wrong,” the Guardsman replied brusquely.

“End transmission!”

Through the viewport, the boys watched the spacetug begin to pull away, and the feeling of loneliness increased. Briskly, the Guardsman turned to the three boys.

“No use moping around here,” he said. “Stand to! There's work to be done.”

“Aye, aye, sir!” Jim looked up at him. “What are your orders, sir?”

“Digby Allen, I place you in temporary command of the Explorer Ship *Viking*,” the Guardsman spoke formally. “Jim and Ken Barry are your crew. Your orders are to bring the ship back to Mars. I will meet you there.”

“Aye, aye, sir!” The new responsibility seemed to take Dig Allen's mind off his problems. He smiled weakly at the

tall spaceman and added, "I'm all right now, sir."

The stiffness dropped away from the Guardsman. He patted Dig's shoulder.

"It's a hard blow, lad. I know how you must feel."

"I expected different information, not what we found here," Dig said.

"What did we find?" Ken put in. "Tools missing and one oxytank..."

"What kind of tools were they, Dig?" Jim asked suddenly.

"Did Captain Allen go spaceside to make repairs? We didn't find any damage..."

"They weren't that kind of tools," Dig told them. "It's the Space Explorer's kit for getting samples of rocks, gas, and such stuff. Ball-point hammer... diamond-point chisel, sample containers... things like that."

"Then he landed somewhere to get samples," Ken exclaimed.

"That probably means he had found whatever he was looking for."

"Probably," the Guardsman said. "But what was it?"

"His ship was found near the Asteroid Belt. Whatever it was, it must have been on an asteroid!"

"So far, your reasoning is good, Ken. Go on. What else can you guess?"

"He wanted samples! That means he found something of great interest or value! But suppose someone found out? Suppose someone stopped him to keep the discovery a secret?"

"We're back where we started from," the Guardsman shook his head. "Remember the spacegram? The number 433 could mean an asteroid... a space outlaw... a space prospector; we checked all of these possibilities and they led us nowhere!"

Ken's face dropped. He had thought he was on the track of some clue, but suddenly the facts were as scattered and unconnected as they were before.

“Don't be discouraged,” the Guardsman said. “Something will turn up if we keep trying.” He didn't sound convinced.

“I won't give up trying, sir!” Dig murmured, turning to the control board.

“Nor will I!” the Guardsman promised. “Well, as soon as I'm back on the *Galahad*, blast away for Mars.”

“Aye, aye, sir!”

The trip to Mars was a quiet one. The day began with a complete inspection of the ship. Breakfast followed and then several hours of study. The noon meal and more study and the second inspection of the ship after the last meal came in routine order. The schedule was based on Earth time.

Dig kept a good deal to himself, and Jim and Ken, understanding their friend's feelings, left him alone as much as possible.

Only when Mars was in sight and the braking rockets were slowing the ship down for a landing, did the three friends sit down to talk over future plans.

“There's one last hope,” Dig told the Barry boys. “When we land on Mars, I'm going to look for Old Dorkas.”

“It's a slim one,” Jim said.

“He might give us the clue to what Dad meant by number 433,” Dig said.

“If we can find him and if he knows.”

Ken agreed with Dig. “The old man might give us something, just one little bit of information that could tie together everything that we already know.”

“He might do that,” Jim admitted. He turned and looked through the viewport at the red planet. “Shouldn't we prepare for landing?”

Dig nodded and took his place at the instrument panel.

As the *Viking* slowly began its turnabout, Jim and Ken caught sight of the two tiny moons of Mars. Deimos, only five miles in diameter, now served as a space station for passenger spaceships. Phobos, twice the size of its sister moon, was the main freight and repair depot for Mars.

Both moons and Mars itself swung out of view as the *Viking* turned her nose toward space and began the approach to the planet, tail fins first.

The landing tapes were already in the gyrobot and Dig released the power lever.

They switched on the tail scanner and the image of Mars, zooming rapidly toward them, appeared on the screen. As the distance decreased, the ribbon-like outlines of the great canals, wider than the mighty Mississippi River, could be seen clearly.

The automatic navigation tape held the ship aloft for several minutes while they approached Mars spaceport. Then, as they reached a point above the landing field, the *Viking* began to drop rapidly.

A mile above the ground the rockettubes began to release flame which first slowed down their descent, then blasted furiously as they cushioned to the ground on the fiery tail.

“Mars!” Ken sighed in awe as the ship became still.

From the viewport, they could see the great administration buildings of the spaceport and further away, the hangars and fuel-supply depots.

A jet-propelled jeep was racing across the field toward them. Dig pointed to it.

“That must be Sergeant Brool. He came at full space speed.”

Within seconds, the boys were ready to leave the ship. But at the airlock, Dig stopped them.

“First we decom our bodies,” Dig said.

“What's that?”

“Match the pressure inside our bodies to the atmosphere of Mars,” Dig explained as he herded his friends into the airlock.

“It's thinner than Earth's. If we went outside without decompression, we'd get the bends.”

He set the pressure gauge controls to match Martian atmosphere and started the pumping engines.

“It'll take about five minutes,” Dig continued. “The air

here is thinner than on top of Mount Everest. You can live in it, but you'll tire very easily. At least until you've spent a couple of months getting used to it."

"How about getting back into the ship?" asked Jim.

"Same thing. Five minutes to match your body pressure to the pressure inside the ship. And better remember that! Otherwise you can get squashed like a submarine going too far down under Water."

By the time the boys got through the airlock and climbed down. Sergeant Brool had arrived at the base of the *Viking* and was waiting for them.

"Hop in," he ordered.

As they raced across the field toward the administration building, he told them about his activities since he had arrived on Mars.

"The Command Staff has a complete report. I'm meeting with them in half an hour and I'm glad you boys brought the *Viking* in before the conference. I'm requesting that the search for Captain Boyd Allen be re-opened."

"That's great!" Jim cried.

"I'm not sure how they're going to..."

"Because the *Viking* was empty?" Dig asked. "Yes, and only one tank of air missing."

"That's about it, Dig. So don't raise your hopes too high. They may think it's useless."

The sergeant stopped the jeep in the long line of parked vehicles.

"Wish me luck," he said. "What are you boys planning to do meanwhile?"

"Take in the sights of Marsport," Ken replied.

The Guardsman chuckled. "There's not much to see. I hope you aren't too disappointed."

He turned and strode through the revolving doors into the administration building. When he was gone, Jim turned to Dig.

"Old Dorkas?"

Dig nodded and led the way through the spaceport gate

into the one main street of the community. A short distance beyond the landing field, rows of plasteel warehouses lined the roadway on both sides. But further on the scene changed and resembled the main street of any typical small town on Earth.

The reddish dust of Mars had been fused by heat-paving machines to form neat sidewalks and a smooth roadway.

“Most of the colonists are working,” Dig explained as they walked down the quiet, empty street.

From the main street, small round houses spread in haphazard fashion. The streets of the residential sections were narrow and children played in the reddish dust.

Jim and Ken found the Mars-colony not at all as they had imagined it. They expected a crowded, noisy community.

“You get that on the Tri-D shows,” Dig chuckled. “*Pioneering* isn't romantic. That's story-book stuff. Life here is hard.”

As they approached the Canal, the shop displays became brighter, the tables at many of the cafes were occupied and a theater advertised the latest Tri-D shows from Earth.

“This part of town is a lot livelier,” Dig commented.

They reached the bridge which arched over the Canal and strolled up the incline.

“Spaceman's Roost starts at the other end of the bridge,” Dig told his friends.

It was a crowded, confusing mass of winding, narrow alleys, dark and dirty. Rows of shacks huddled together between cheap restaurants and dingy boarding houses. Through the dark alleys slipped the shadowy inhabitants.

This was the last refuge for the old, forgotten spacemen who refused to believe their days of glory were over. Penniless asteroid prospectors waited here for a turn of luck. Space outlaws, tramps, wanderers, all crowded somehow into Spaceman's Roost and lost themselves in its sinister gloom.

And here, if Captain Ahab was right, lived Old Dorkas.

The boys sauntered into the nearest cafe, a small, dingy

place. behind the long bar, a man was wiping glasses.

Dig approached the barman.

“We're looking for Old Dorkas,” he said. “Can you tell me where to find him?”

“There's no man by that name hereabouts,” the barman said.

“And there's no use snooping around, either. Get out!”

“Not until you tell me where to find Old Dorkas!” Dig answered in desperation.

“You'll go now-or be carried out! Which is it going to be?”

10 The Blind Spaceman

DIG FACED the man, his eyes bright with anger.

“Is Old Dorkas here?” he demanded.

“Look for him some other place!”

“We will!” Dig turned on his heel and started for the door. Jim and Ken were about to follow him when a voice suddenly called out to them.

“Hold on, lad! Who told ye Old Dorkas was hereabouts?” Dig turned and tried to peer into the dark corner from which the voice came.

“Captain Ahab,” Dig replied.

“Captain Ahab? Ahab McComber told ye?” the voice asked.

“Aye, he did,” Dig said, lapsing into the rhythmic speech of old-time spacemen.

“They be all right, Rufe,” the voice called out.

The barman jerked his thumb toward the corner.

“That's him,” he told the boys grudgingly.

In the shadows, an old man sat with his back against the wall, a half empty glass before him. His hair was long and white. Out of a thin, wrinkled face, his eyes stared blankly ahead.

“You be the son of Boyd Allen, lad?”

“How did you know?” asked Dig in surprise.

“Your voice.” The old man chuckled. “Old Dorkas never forgets. Your father was about your age when he sailed the deep with me.”

“He... he shipped with you?”

“Aye, he did! And who be with ye? Two of them, eh?”

“My spacemates, Jim and Ken Barry.”

“Ah,” the old man sighed. “They be not Space Guards?”

“No, sir,” Ken said. “We're not.”

“Good lads! I like not Space Guards! They be wanting to take Old Dorkas back to Earth to live in some Earth

crawler's rest home. Old Dorkas is too old to clutter up the spaceways, they say. But I've lived my life in free space... and there I'll die!"

Old Dorkas picked up his glass and drank the contents. He wiped his lips with the back of his hand and called out to the barman.

"My bones are dry, Rufe!"

The barman brought a full glass and took away the empty one without a word.

"Captain Ahab said you might help me," Dig ventured in a low voice.

"Help ye, lad? Aye, how?"

"My father asked me to find out everything I could about No. 433. Do you know what the number stands for?"

The old man laughed. "So that's it, eh? It's been haunting Boyd Allen after all these years!"

"Will you tell us about it?" Jim asked eagerly.

"Aye, that I will," the old man said. "It was long ago. Too old I was to sail my own ship. But not too old to teach the youngsters of the Space Explorers. Aye, it was a long time ago."

Old Dorkas lapsed into silence, searching his memories. After a while, he gulped the contents of his glass and wiped his lips.

"My bones are dry, Rufe!"

Silently the barman replaced the empty glass with a full one, gave a quick careless wipe of the table with his apron, and returned to his place behind the counter.

"Boyd Allen was the last of the young ones I took into space. He turned to me just after we blasted off from Luna Spaceport and said... 'What's the most interesting thing to explore in all space?'... That's what that young one asked me."

"My father?"

"Aye, your father, lad." The old man shook his head. "In all my years in space, I've wondered about 433. And so I told him. And he said, 'Set course for 433!' And we did!"

“What is 433? Where did you go?” asked Ken.

“To the Asteroid Belt, lad! Where else would 433 be found?”

“Then it's an asteroid?” Dig asked, sudden disappointment in his voice.

“Aye, the books say it's an asteroid. But those of us who've watched that asteroid for years, we aren't so sure.”

“Why?”

“It don't behave like one,” the old man said. “There's a mystery there. A spaceman feels it in his bones the moment he steps foot on that there chunk of rock!”

“What's so mysterious about the asteroid, sir?” Ken persisted.

“It don't belong in the Asteroid Belt! It moves around and around in the belt with the other asteroids. Then swoosh! it swings out toward the Sun and comes as close as fifteen million miles to Earth! Closer than any other planet in the Solar System!”

“My father is lost in space,” Dig said softly. “His last message mentioned No. 433.”

“Boyd Allen lost in space? Ye're talking nonsense, lad!”

“We found his ship adrift,” Jim said. “Empty.”

“Then he's on Asteroid No. 433! Ye'll find him there!” The old man spoke quickly, sure of himself.

“The Space Guards looked for him on the asteroid,” Jim said.

“They found nothing.”

The old man snorted. “Looked for him, lad, or for the spaceship? Why, the spaceship could have drifted away long before they got there!”

“But if he was marooned on the asteroid...” Dig began. His voice choked up and he turned away.

“If I had my eyes,” the old spaceman said, shaking his head,

“I'd find him! That I would!”

“If No. 433 isn't an asteroid,” Ken asked, “what is it?”

“Some say it's an asteroid... and some say no.”

“What do you say?”

The old man leaned forward, turning his blind eyes on the boys as though trying to break through the darkness in which he lived.

“Ye won't be thinking Old Dorkas has lost his wits, will ye?”

“No, sir.

“I say it's a spaceship!” The old spaceman's voice was subdued as he let his words sink in. “A spaceship such as none of our worlds has ever seen!”

Dig's shoulders sagged and he turned away tiredly.

“Thanks, Old Spacemate,” the boy said. “Good-by, and the luck of space sit on your shoulder!”

He turned and shuffled out of the cafe.

The old man raised his head. “Poor lad,” he said. “He does think Old Dorkas is mad! Aye, and maybe I am. Maybe I be just that! Go after your spacemate, lads. Good-by, Jim... goodbye, Ken.”

The old man leaned back against the wall and let his head droop down to his chest.

The brothers felt like tip-toeing out, so quiet had the place become. Outside, they soon caught up with Dig and the three boys retraced their steps over the bridge and down Main Street to the Spaceport.

It was Dig's last hope, Jim thought, and now it's gone. Suddenly he felt he had to say something. At the gate he took Dig's arm and stopped him.

“What if the old man is right?” he asked.

“He's as spacegoofy as a Martian hare,” Dig replied.

“Your father wanted every bit of information he could get on No. 433, didn't he?” Jim argued. “He must have known Old Dorkas' theory! Still, your Dad was interested!”

“I know there's no hope,” Dig told his friend. “But don't worry about me. I can't give up... even now!”

“Good!” Jim cried.

Dig smiled. "Tell you what Jim, I'll go back to the *Viking* and start looking at Dad's notes and memos all over again. You call Sergeant Brool and tell him what we learned."

"We can call from the ship," Ken said.

"No, you go call from the administration building. We'll meet at the ship."

Dig jumped into one of the parked jet-jeeps and raced away while Jim and Ken went in search of a visiphone booth.

It was a simple matter to contact Space Guard Control, and when the Guardsman on duty appeared on the screen, Jim asked him for the sergeant.

"Just a minute." The image of the Guardsman blurred as he switched his key to a holding position.

They had a short wait. The image of the Guardsman reappeared on the screen.

"Sergeant Brool is in a Command Staff conference, but I can take a message for him."

"Will you tell him that No. 433 is definitely the asteroid? We'll find what we're looking for there."

"That's all?" The Guardsman frowned. "What does it mean?"

"The Sarge will understand," Jim said, closing the visiphone circuit quickly.

"Now why did you do that?" Ken asked as they walked toward a parked jeep.

"What?" Jim asked innocently, a smile playing on his lips.

"You know what I mean! Making a mystery message out of an old man's ravings!"

"Well, there's always the chance he might be right!" Jim retorted.

Ken took the wheel of the Jeep and as soon as Jim jumped in beside him, stepped on the accelerator and roared away toward the *Viking*.

Ken didn't speak again until they reached the spaceship. He set the little car's controls to automatic and released the

brake. The jeep turned and raced back to the parking area like a homing pigeon.

The wire ladder was down but the hatch was closed.

As Ken climbed up, he glanced over his shoulder at his brother.

“You encouraged Dig,” he said. “I think that was wrong.”

Jim made no reply. He waited as Ken opened the airlock hatch, then followed him inside. While he was closing the hatch, Ken set the atmosphere gauge.

“Five minute wait,” Jim said. “Might as well make ourselves comfortable.”

He dropped to the deck and rested his back against the metal bulkhead. Ken joined him.

“I'm sorry,” Jim said after a while. “But Dig was so disappointed, I just had to say something.”

Before Ken could reply, there was a slight vibration through the metal hull of the ship.

Jim sat up quickly. “What's that?”

“You know what it is! The rockets!”

There was a sudden roar and the spaceship shuddered violently. The rockettubes were blasting full power. The boys felt the deck rise beneath their feet as the ship leaped spaceward. In another second they were smashed flat against the deck.

“He's blasting off!” Ken cried. “Stop him!”

“How? I... I can't move!”

The younger boy began to force his body up. Inch by inch he clawed upward along the metal wall of the airlock. Then, with all his strength he heaved himself high enough to reach the airlock release. His fingers grasped the lever. As he let his body drop back to the deck, he pulled the handle.

A rush of air knocked both boys back along the deck and smashed them against the opposite wall.

“Ken... Ken... call Dig!”

Grabbing his brother, Ken stumbled to his feet and out of the airlock. They were spaceborne for there was now no

pressure from the rapid acceleration of the ship.

Ken staggered through the passageway, heading toward the control cabin. Jim was doubled over in pain. Ken felt sharp stabs pricking through his body. He lost his footing and suddenly found himself floating in the air.

Darkness began to swirl around him... and everything was black.

Slowly the two bodies floated through the passageway, settling down toward the deck.

11 The Mysterious Asteroid

WHEN Dig Allen left his friends, he had already made up his mind to blast off for the Asteroid Belt alone!

Sergeant Brool was sure to question the boys thoroughly and that would give him plenty of time to take off. It was a dangerous plan and Dig had no right to involve Jim and Ken in so risky a space journey.

But his plan did not work out as he had expected. Jim and Ken could not reach Sergeant Brool. By the time Dig had adjusted his body to the spaceship's atmospheric pressure, the two brothers were already jeeping across the field toward the *Viking*. Dig was so engrossed in plotting his course to the Asteroid belt, his back turned to the instrument panel, that he failed to see the red light signal the opening of the airlock hatch.

When Dig sat down in the pilot's seat and began to feed the blast-off tape into the gyrobot, Jim and Ken had closed the outer hatch and the red warning light was out.

With a quick glance at the radar scanner, Dig saw there were no spaceships overhead. He pulled the power lever and the rockettubes shook the ship with a roar.

The *Viking* was leaping spaceward. Dig leaned back in the pilot's seat, relaxed and secure. No one could stop him now. He was bound for the Asteroid Belt, free to carry on the search for his father.

And then the red warning flashed on the instrument panel Dig leaped to his feet and rushed into the corridor.

The limp bodies of Jim and Ken were drifting just above the deck!

He dropped to his knees and felt the pulse of first one boy, then the other. They were alive!

The pain-twisted bodies clearly indicated what had happened. The two boys had emerged from the thin atmosphere of Mars into the heavier pressure of the spaceship's Earth atmosphere too quickly.

Seizing both boys. Dig dragged them back into the airlock. He shut the hatch and started the pumps working

to bring the pressure down to Mars level.

As the pressure came down, the boys' breathing became easier. Dig crouched beside his friends and watched their faces intently.

A minute after the pressure had come down, Ken opened his eyes. When he saw Dig's anxious face over him, he smiled weakly.

“Hi, Dig. I'm all right. How's Jim?”

“He'll be all right, too.”

Even as he spoke, Jim opened his eyes.

“You two spacerookies came out of the airlock too soon,” Dig scolded gently.

“We had to stop you,” Jim whispered, trying to sit up.

“Well, you didn't,” Dig said. “And you came near killing yourselves!”

Jim fell back, exhausted, while Dig started the air pump working to build the pressure to Earth level.

They waited quietly. When the pressure was up, Dig helped the boys to their feet and out of the airlock. They staggered to the cabin and dropped into their bunks.

From the medikit, Dig took two plastubes and twisted off their caps.

“Drink this,” he said. “You need sleep and rest. We'll talk later.”

Jim and Ken drank the sweet-tasting liquid and lay back on the foam mattress. A moment later, both boys were fast asleep.

Dig covered them with blankets. They had suffered shock, but no real damage to their bodies. They would be as good as ever after a day or two of sleep, and Dig was thankful that the accident was no worse.

The sound of braking rockets awoke Ken. He opened his eyes and found Jim fast asleep in his bunk.

“Jim! Wake up!”

Jim raised his head and stared at his brother through sleep-fogged eyes.

“Dig is stopping the ship!”

“Oh!” Jim shook his head. “I remember now!”

Ken left his bunk. “Let's get to the control room!”

On the way, Jim asked, “How long do you think we've been sleeping? I feel groggy... and hungry!”

“Must be hours! Maybe around the clock.”

In the control cabin, Dig was busy over the instrument panel. He did not look up when his spacemates entered.

“Where are we?”

“At the Asteroid Belt, Ken!”

“Aw! You're just blowing your jets, Dig! What's our position?”

“Look through the viewport!”

Ken did and gasped.

The sight that met his eyes was magnificent and frightening. For countless miles, space was filled with sparkling, dancing matter! The asteroids! Some were no bigger than grains of sand, others like pebbles, and here and there loomed huge masses of rock the size of mountains!

“The Asteroid Belt!” Jim whispered.

“Have you found No. 433?” asked Ken after a while.

That big one there,” Dig replied, pointing. “See it?”

“Yes.”

“The asteroid is named Eros,” Dig told them. “It's about twenty miles long and about five miles across.”

“When will we reach it?” Ken wanted to know.

“About twenty minutes. I was going to wake you as soon as we were alongside.”

“How long did we sleep?” Jim asked.

“Oh, a couple of days.”

“Days!” the brothers exploded.

“You were lucky. On Mars, they'd give you two weeks of hospital sleep.”

“No wonder I'm hungry,” Ken remarked.

“You're beginning to sound like Woody, but I'm hungry too,” Jim laughed. “How about rustling up some food. Ken?”

“Aye, aye, sir!”

After a quick meal, Dig outlined his plan.

“We'll orbit around the asteroid and try to scan the surface for anything unusual,” he said. “If we find something, we'll land.” Then he added, “We'll land even if we don't find anything.”

“Let's get started,” Ken said. He switched on the videoscreen and focused the side scanner on the asteroid's surface.

“Jim, you stand by the metascope,” Dig said. “If there's any metal on the surface, you'll see it on the scope.”

Dig turned to the controls and began to guide the spaceship closer to the asteroid. After a while, they were moving in a corkscrew orbit around Eros.

The surface was fairly level but here and there the *Viking's* shadow dipped and bent as it raced over barely visible valleys and hills.

In two hours, they had explored the entire surface of Eros.

Their search was in vain. The screen showed the surface bare, and the metascope remained steady.

They had reached the blunt end of the asteroid and were about to swing over when Jim suddenly sat up.

“A beep!” he cried. “I'm getting a beep on the metascope!”

In a moment. Dig had the *Viking* hovering over the area.

“Focus the scanner, Ken!”

“Nothing below. Dig! Nothing but gray rock!”

Firing the nose rockets. Dig forced the spaceship to move toward the surface, tail fins first.

“I'm putting her down,” he said. “We'll search on foot from here on!”

The moment the ship rested on the asteroid, the boys

rushed to get into their spacesuits. Tensely they waited, inside the airlock, for the pumps to finish their work so that the outer hatch could be opened.

“I never thought I'd be walking on the surface of an asteroid,” Jim called over the radicom.

When the hatch opened. Ken held Jim back.

“Dig goes first,” he said.

Jim stood back and Dig climbed down after releasing the wire ladder. When the three boys finally stood on the rocky plain of the asteroid, they found themselves at a loss for words. About them was an overwhelming stillness.

“Twenty yards apart,” Dig finally ordered. “Keep in a row.” He pointed toward the blunt edge of the asteroid. “We'll go that way.”

Moving slowly and examining the ground at their feet carefully, the three boys reached the end of the asteroid some fifteen minutes later.

Behind them, the top of the *Viking* was barely visible above the near horizon. They felt like giants walking over a planet suddenly grown small.

They continued over the curve to the blunt end of the asteroid and the top of their spaceship disappeared behind the curvature of Eros.

“This asteroid is different from others I've been on,” Dig remarked. “The others had rugged, rough surfaces. This one hasn't. It looks like it's been smoothed out.”

“Are you saying that someone smoothed over the surface of this asteroid?” Ken asked.

“No, Just saying that it's somehow different.”

They had walked on for several miles when Dig called for an air check.

“Don't forget, we've Just four hours of oxygen in our tanks,” Dig said. “And I've got less than an hour left.”

“Forty-five minutes in mine,” Ken reported.

“Same here,” said Jim.

“Maybe we ought to start back,” Ken suggested.

“Half an hour will give us plenty of time,” Dig said.

“We'll search another ten minutes.”

Five minutes later. Ken called in an excited voice.

“There's something here on the ground!” Jim and Dig hurriedly shuffled over to him. Ken pointed to markings on the ground, deep gashes scraped on the stony surface.

“They look like the marks of tail fins,” Dig said. He went over the ground quickly. “There's a rocket burn here.”

“A spaceship must have landed here!” Jim turned to Dig and baited for his friend to reply.

But Dig was studying the scorched surface of the rocks.

“The rocket burn isn't heavy,” he finally said. “A ship landed here all right, but it didn't blast off!”

“Where is it, then?”

“I don't know. But if it had blasted off again, the burn would have been much wider and deeper!”

“Could it have been the *Viking?9*’ Ken asked suddenly. “Could the ship have drifted away from the surface?”

Dig straightened up. “I've felt in my bones that there's something wrong here,” he said. “Old Dorkas said that a spaceman feels it in his bones. Well, now I feel it.”

“What? I don't feel anything... except it's strange and scary walking around on an asteroid.”

“This asteroid has much too little gravity for its size,” Dig told his companions. “It would be possible for a spaceship to drift off the surface!”

“Do you think that's what happened to the *Viking?*”

“Yes, and if it did once, it could happen again!”

“How much air have we got left?” Jim asked. “Thirty minutes in mine.

“Let's get back to the *Viking* fast!” Dig cried. He turned and began to shuffle quickly toward the horizon. He went over the curve of the asteroid and immediately saw the *Viking*. But it was no longer standing on its tail fins! The spaceship was off the surface of Eros, drifting in space!

For a moment, the boys stood frozen in their tracks. Then Dig called out, “How much air in your tanks?”

“Twenty-six minutes!” Jim's voice was tense.

“Come on! We'll see how far away from the surface she is!

Ten minutes later, they were standing directly beneath the spaceship. The *Viking* was moving in a slow orbit around the asteroid, drifting gradually further and further away, even as they watched.

“What do we do now?” Jim asked.

“She's a mile away,” Dig said. “Maybe a little more.”

“Can we jet out to her?”

“Sure, but it'll take almost an hour,” Dig replied. “Besides, we have to use our oxygen for the jets and what do we breathe while we're doing that?”

“The airlock hatch is open,” Jim said softly. “Just like it was when the *Viking* was found drifting before!”

“Yes,” Dig said softly.

“Now we know what happened,” Ken said. “Captain Allen was marooned here... just like we are now!”

12 The Secret of the Asteroid

THEY wasted precious minutes standing on the asteroid and peering at the distant spaceship. The bubble in the air gauge moved down steadily until it stood at fifteen minutes. Jim called their attention to the time in a hopeless voice.

“Fifteen minutes! Only fifteen minutes left!”

“Only one thing to do;’ Dig said grimly. “We’ll try to jet across to the *Viking*.”

“We haven’t a chance,” Ken stated, calmly prepared to accept the fact. “But if we have to die out there in space, at least we’ll be trying and fighting. I’m ready. Dig.”

“That goes for me, too,” Jim agreed. “What do we do?”

“We’ve got enough oxygen for fourteen minutes,” Dig said.

“Cut your oxygen feed in half. We’ll breathe an air mixture that has only half the oxygen we need, but it’ll last us twenty-eight minutes.”

“Right!” Jim and Ken did as their friend directed.

“Hook your safety lines to my belt,” Dig went on. “I’ll take the lead. When I give the signal, jump head first at the *Viking*.”

“We’re ready. Count off!”

“Three! Two! One! Leap!”

At the signal, the three boys hurled themselves spaceward, Dig leaping a fraction of a second before the others. The unusually light gravity of Eros which had been the cause of their predicament, now favored them, and their Earth developed muscles propelled them swiftly into space.

“How fast are we going?” Jim asked after a while. The *Viking* seemed no nearer than before they started.

“Not fast enough!” Dig replied. “Here we go!”

He pressed the jet stud in his belt and held it for two minutes while a stream of air spurted behind him. The safety lines between the boys tightened, but there was no

other indication of increased speed.

“Cut it out, Dig!” Jim cried over the radicom. “You're using up your air supply!”

“I've got twenty-two minutes left,” Dig said. “You should have about twenty-six each.”

“Sure, but that's not enough to get us there,” Ken said.

“Cut oxygen supply in half again!”

“All right,” Jim called.

He adjusted the setting of the valve and immediately began to feel the effects. Only a quarter of the oxygen his body needed was now being mixed into the air circulating through his spacehelmet. A drowsiness began to nag at his mind and he had to fight to keep himself awake. He lost track of time, drifting helplessly in absolute zero gravity.

“Jim! Ken! Keep awake!” Dig's voice was very close, seeming to shout into his ears.

Jim blinked open his eyes. The *Viking* was now close, almost within reach.

“How long... has it been?” Jim had to struggle to get his words out.

“Check your... air gauge!” Dig said, breathing hard.

“Six minutes... about,” Ken gasped.

Jim couldn't focus his eyes on the gauge. Everything about him seemed blurred and unreal.

“I don't know... can't read it.”

“Cut the oxygen supply in half again!”

“There's no... oxygen in the air now,” Jim pleaded hoarsely.

“Please, Dig, I can't!”

“Do it!”

With groping fingers, clumsy and stiff, Jim found the valve and cut his oxygen mixture.

“All right?” Dig called.

“Yes,” Jim called.

“Ken?”

“Yes.”

“Save your breath from now on.” Dig heard the rasping breathing over his earphones and knew his friends were still fighting to live. His own air supply was even weaker in oxygen, but his body was better trained to withstand such hardships.

Only a few more minutes now, and they would reach the *Viking*. He fought the sleep coming over him. He had to hold out!

The bump against the side of the spaceship suddenly awakened him. With a shock, he realized that he had blacked out.

His magnetic boots held him to the ship's hull. He dragged his feet, inch by inch, to the airlock hatch. Behind him, he dragged the bodies of his two friends, bumping and scraping against the ship's side.

Inside the airlock. Dig pulled the hatch shut. He started the air pumps working, and with his last ounce of strength opened the vents in his spacehelmet.

The cool, fresh air began to revive him. Hungrily he sucked it in. Then he opened the helmets of his companions, and fell back against the side wall of the airlock, exhausted.

When he opened his eyes again, it was to find Ken taking off his spacehelmet.

“Made it!” Dig said. “We made it!”

Fifteen minutes later, the three boys were drinking chocomilk in the control room, almost completely recovered from their ordeal.

“What I can't understand,” Ken was saying, “is why Captain Allen didn't jet to the ship the same way we did.”

Jim smiled. “You know, we've done more to solve the mystery than the Space Guard. Now we're pretty sure about how it happened.”

“Before you take too much credit,” Dig said, “remember Old Dorkas. He pointed the way. And Captain Ahab who sent us to Old Dorkas.”

“I feel good and rested,” Ken said. “How about going on with our search?”

“This time we'll land as close to the spot my father chose as we can,” Dig said, going to the controls.

In a few minutes, he had the *Viking* approaching the blunt end of the asteroid. He maneuvered the ship close to the surface, then gently brought her fins down.

As they were getting into their spacesuits. Ken turned to Dig Allen.

“What if the *Viking* drifts off again?”

“This time she'll be anchored.”

Inside the airlock, Dig opened a small box close to the outer hatch. Inside was a heavy lever.

“What's that?” asked Jim.

“Holding spikes,” Dig replied.

He pulled the lever down. Four heavy thuds shook the ship.

“The spikes shoot out of the tail fins,” Dig explained. “The *Viking* is now practically bolted to the hard rock below us. Come on.”

The air had been pumped out of the airlock while he was anchoring the ship and now the outer hatch swung open. The boys climbed down and found themselves several yards away from the scorched area of the *Vikings* original landing.

“We'll search the ground for any sign of my father's work,” Dig said. “He took his tool kit with him. That means he planned to chip off some rock samples.”

They began a slow, careful scrutiny of the ground, moving away from the spaceship in widening circles. The search went on for more than half an hour before the boys' patience was rewarded.

“I've found something!” Jim called over the radicom.

“What is it?”

“A hole in the ground. Sort of square with smooth sides.”

Ken and Dig hurriedly joined him. Jim flashed a light and the three boys peered inside.

The hole was square, with smooth metal walls. On the

grayish bottom a round, black spot was painted. There was no doubt that the hole was, in fact, a metal box set into the rocky surface of the asteroid.

“Dad might have found this and cleared it out,” Dig said.

“Look around and see if there are any tools.”

Within a short time, they found Captain Allen's tools. Dig laid them out on the ground, the ball-point hammer, the chisel, the sample container.

“Are you sure these are your father's?” Jim asked.

“Of course! I've used them many times.”

Ken went back to the box in the surface of the rock and stared at it.

“This was made,” Ken said. “But who'd make something like this box way out here in the middle of space? And why?”

“It all begins to add up,” Dig said thoughtfully. “The light gravity of the asteroid could mean it's hollow.”

“To really change the gravity of this asteroid, it would have to be pretty near a shell,” Ken said. “Who could do that?”

“Who made this?” Jim asked, indicating the box-like hole in the hard rock.

“We wondered why Dad didn't jet after the *Viking* when it drifted away, the way we did,” Dig continued. “Well, maybe he couldn't because he never saw her leave the asteroid!”

“I suppose you're going to tell us he was inside the asteroid!” Ken argued. “You can't really believe that!”

“But I do believe it,” Dig insisted. “And this thing, this black circle inside the hole, has something to do with it!”

“It's not a button,” Jim said, leaning over to look at it. “That's for sure.”

“It could work on the electric eye principle. Or body heat or simple pressure of any sort,” Dig said.

“If that's true,” Ken protested, “we ought to leave it alone and put in a call for Sergeant Brool.”

“I know that old spacefox,” Dig said. “He's probably on

his way here already.”

“Then let's wait.”

“No, he may not get here for a couple of days,” Jim said. “And I'm against sitting around and doing nothing! Here goes!”

He leaned over the hole and reached for the black spot.

“What are you doing?”

“I'm going to push it, and if nothing happens, I'm going to keep pressing my hand against it until something does,” Jim replied.

At first nothing happened. They turned and looked about. The ground was flat and of solid granite, too smooth to be entirely natural.

“Well, nothing happened,” Ken said. “What now?”

As he spoke, there was a slight tremor in the ground. A moment later, something moved in the center of the level surface of the rock.

Wordlessly, Dig pointed to it. A circular section of the rock in front of them was turning.

“Look,” Dig gasped.

Too stunned to move, the boys watched as a massive block began to rise out of the ground. It was round and its sides had a metallic quality. It resembled a huge plug, revolving slowly as it rose.

In a few seconds, it was above their heads. Ten feet thick, it rested on a central shaft.

“What is it?” Jim asked as he approached it cautiously.

“Could be a circular hatch,” Dig said. “There's a floor here.”

“It looks like a toadstool with a flat top,” Jim said. He examined the steel-like column that supported the top. At the base of the column, fixed into the floor, was another round, black spot. He called Dig and Ken over and pointed it out to them.

“I think this will take us down,” Jim said. For a moment, they remained standing quietly, peering at each other through the glassteel crystal of their spacehelmets.

“Press it,” Dig said.

Jim looked at his brother. Inside the helmet. Ken nodded slowly, a frown on his face.

Jim bent down and placed his hand over the black spot. Overhead, the massive plug began to turn. They were descending into the interior of the asteroid!

13 The Hidden World

THE FACT that they were actually entering the strange asteroid was so startling that the three boys barely noticed they were slowly turning around the metal column.

Above them, they saw the massive hatch come down and plug the opening. It was a hatch to an airlock, they were sure of it now.

Unconsciously, the boys shuddered. Darkness closed over them and they felt as though the walls of the room were pressing in. For a moment, they yearned to be out in limitless space again.

The feeling passed quickly as the walls began to glow. It was a weird, golden light and the three spacemates looked about them in wonder.

“My counter shows no radioactivity from the walls,” Dig said after a while.

They were suddenly filled with an intense curiosity. Impatiently they waited for the end of their downward journey.

“We'll explore until our air supply is down to the halfway mark,” Dig said. “Then we'll go back.”

“If we can,” Jim added.

“How far down does this go?” Ken asked, glancing upward.

“We must be several hundred yards below the surface now.”

“Except for turning around this column and sort of sliding down,” Jim pointed out, “I don't feel any motion at all.”

“Notice we have a feeling of down?” Dig said. “It's much stronger here than outside.”

“Artificial gravity?”

“Maybe. It could also be because we're coming closer to the central core of the asteroid.”

They waited in silence and finally found their movement around the column slowing down. When it stopped, there

was a moment of absolute quiet. Then an opening suddenly appeared in the wall. A slab of metal, the size of an ordinary doorway, swung inward.

“Well, here we go,” Dig said, stepping through the opening.

They found themselves in a solid metal room. Behind them, the door closed slowly. Jim turned and found a black spot beside the place where the door had been. Otherwise the wall was perfectly smooth.

“A black spot,” Jim said. “I guess this opens it.”

He pressed the black spot and immediately the door opened. They could see the column of the circular room which had brought them down.

“There's a row of black spots on this side,” Ken called from across the little room.

There was a vertical line of black circles on the wall. The one in the center was the largest, the others gradually growing smaller in descending and ascending order. The smallest were the top and bottom spots.

“What do you make of this?” Dig asked, turning to his friends.

“I'm afraid to say,” Ken said.

“It could be levels,” Jim said. “Each might stand for another floor in the asteroid. And we're in an elevator of some kind!”

“That's what I think.”

“Who made this place?” Ken asked uneasily. “Look at the way light glows from the walls! Look at the material from which the walls and floors are made! I've never heard of anything like this! I don't mind admitting it, I'm scared!”

“This may turn out to be the biggest discovery the human race has ever made,” Dig said seriously. “I'm sure that no Earthman made this place.”

“Whoever made it, is probably here,” Ken insisted. “And we may not find a friendly welcome.”

“I believe my father came this way. Ken. If we're going to find him, we've got to go on. But if you want to turn back, let's take a vote.” He turned to the older brother.

“Jim, how do you vote?”

Jim hesitated. The same fear was eating him and he knew just how Ken felt. But he also realized Dig's hopes of finding his father alive had never been higher. After all, they started out to find Captain Allen. And they were close to success, a far greater success than they had dared dream.

“Let's go on,” Jim said. “What level do we explore first?”

“The middle one,” Ken said. “It's the largest and looks important.”

Jim pressed it. Several minutes passed and nothing happened.

“Shall I try another?”

“No, wait!” Dig stopped him. “I feel something.”

“I don't feel a thing,” Ken said.

“Air,” Dig said. “Atmospheric pressure! It's filling the room!”

“Impossible! The walls are of solid steel or material like it.

Ken glanced around the room and up and down over the ceiling and floor. There were no vents or openings of any sort.

“Never mind looking around the room,” Dig said. “Look at your pressure gauge!”

The bubble inside his helmet had risen, Ken saw at a glance. It was going up slowly. Within a short time, it reached Earth pressure level.

“Can we take off our spacehelmets?” he asked.

“No! We'll have to test the air first. How do we know there's any oxygen in the atmosphere? It may even be poisonous!”

Before them, an opening appeared, the wall swinging back and out to form a doorway.

Beyond, the boys saw a long passageway of gray, glowing metal. They left the elevator and waited while the door closed behind them. There was a black spot on the wall and Ken pressed it. The elevator door opened again.

“So far, the way back is easy,” he said.

“Let's go on,” Dig said briskly. “We've got about an hour before we have to return to the *Viking*.”

The corridor, empty and still, stretched into the distance. There was a slight curve to it so that the boys could not see how far it went. Light glowed from the ceiling.

Along the walls, at regular intervals, were the same black spots. After they had walked for a while, Jim became curious.

“I'd like to see what's in some of these rooms,” he said, indicating the wall with a quick gesture of his hand.

“Go ahead and open one,” Dig replied.

Jim pressed a black circle and when the doorway opened, the boys saw a dark room beyond. As they stepped cautiously inside, light began to glow from the ceiling.

They were standing in a vast chamber. In neat rows, countless spacesuits were hanging from racks.

“There must be thousands of them!” Ken exclaimed. They approached the first rack slowly and examined one of the spacesuits. It was small, apparently made for someone no more than five feet tall.

“For a child or a pygmy,” Jim remarked. “A grown man couldn't possibly get into one of these.”

“Two legs, two arms, one head,” Dig said. “About the same body shape as ours. But there aren't many Earthmen so short. And who'd bring so many children out here?”

“It's weird, all right,” Ken said. “But these were made for people. Not creatures out of space.”

“Don't be so sure, Ken.” Dig looked at one of the spacesuits closely. “I've never seen spacesuit construction like this.”

He took up a sleeve and tried to pull the spacesuit down, but the sleeve tore away! Surprised, he held it up for his companions to see.

“Spacesuit material couldn't be so weak,” he said.

“It's old and rotten,” Jim pointed out. “It must have

been hanging here for ages.”

“Yes,” Dig agreed softly. “Perhaps for thousands and tens of thousands of years.”

“Impossible! We haven't had space travel for...” Ken stopped suddenly, thunderstruck. “They're not of Earth manufacture!”

They backed out of the room and closed the door. Silently, they continued on their way down the corridor.

“This whole asteroid,” Dig said, after a while, “can't be explained easily. How many years would it take to carve the inside out of an asteroid twenty miles long and five miles wide? Who could build the machinery this place has? Just think of that elevator that brought us down to this level. Or the screw-like hatch and airlock!”

There's an answer. Dig,” Jim said. “Another civilization.”

“But where did this civilization come from?” asked Ken.

“Who knows? Or for that matter, how long has it been Around here?” Jim replied. “At any rate, Captain Allen was right when he sensed strange life in our Solar System.”

Unconsciously, the boys drew closer together. About a mile further on, they reached the end of the corridor. It came on them unexpectedly, a blank rounded wall which at first confused them.

Jim pointed to a black spot in the middle of it.

“I guess we have to go through a door,” he said, pressing his hand to the spot.

A door opened at once and they found a square room before them, resembling the elevator which had brought them down.

“Another elevator,” Ken said. “The same vertical row of black circles.”

Ken pointed to the wall facing them as they came into the room.

“Press the middle one again and see what happens,” Dig said. Ken did. A doorway opened almost at once. The door behind them shut at the same moment, but they hardly noticed that.

They were staring in amazement at the view before them. bright sunlight was streaming into the elevator! beyond, they saw the brilliant green of growing things! Speechless, they passed through the door and found themselves walking over a grassy clearing.

“Sunlight and grass,” Ken cried. “And trees... a whole jungle of them ahead!”

The wall behind them rose straight up for several hundred feet, then curved to join a domed ceiling that glowed intensely, as bright as the sunlight.

Dig glanced at his geiger-counter, built into the spacehelmet.

“Normal radiation, nothing dangerous,” he reported to his spacemates. “And yet that stuff up on the roof gives off light and warmth!”

“I’m going to chip off a piece for Dad before we leave this place,” Jim cried.

“Why bother, Jim? Dad’ll be here after we report this discovery!”

Dig turned on his heel and looked about them. “Trees! And trees need oxygen. They also give off oxygen. We may not have to go back to the *Viking* to get new oxytanks. I’ll check the atmosphere content.”

He pulled out a glassteel cylinder from his belt-pouch. There was a small handle on one end and this Dig pumped quickly. When the cylinder was filled with the air, he held it up for his friends to see.

Colored dots appeared on the sides of the tube and Dig explained them.

“The red ones are for the oxygen,” he said. “There’s about twenty-one percent. The blue is nitrogen, seventy-eight percent. The rest is carbon and water vapor. We can breathe this air safely. It’s about as good as the Earth’s!”

In seconds, the boys had taken off their spacehelmets and suits. Jim leaped into the air, soaring over the heads of his spacemates.

“Boy! Smell this air! It’s like Earth’s!” he shouted. “And we can hear each other speak! I was sick and tired of that

tinny sound from the radicom earphones!”

“All this inside a chunk of rock moving through the Asteroid belt!” Ken laughed.

“Let's put our spacesuits somewhere and start exploring this place,” Dig said, bringing the brothers back to their task. He looked around quickly.

“There's a part of the wall jutting out,” Ken said as he pointed toward where the elevator doorway had been. “It's close enough to the elevator. We can push the spacesuits under and cover them with grass.”

He pushed his way through the grass which grew higher along the wall.

“There's some dry grass piled here,” Ken said, dropping to his knees and beginning to rake it out with his hands. Suddenly he uttered a startled cry.

“There's something here!”

“What is it?”

Ken rose to his feet. He held in his hands a spacesuit which had been buried under the grass.

With a cry, Dig leaped forward.

“It's Dad's!”

14 Mystery of the Red Hair

ARE YOU sure it's his?" Ken asked, looking intently at the excited boy.

"Am I sure?"

Dig grabbed the spacesuit and turned over the belt buckle. Engraved on the underside in clear, square letters was the name Boyd Allen,

"Any doubt about it?"

"No," Ken admitted. "We've found him!"

"Only his spacesuit. Ken. Put it back. And ours with it." While Ken was hiding the spacesuits, Dig surveyed their surroundings. The clearing in which they stood formed a half-circle, with the elevator doorway in the center. On every side the heavy forest hemmed them in. Vines and creepers grew thick, twisting across from tree to tree to form a dense network.

"We'll have to cut through that," Dig said, nodding toward the woods.

"We could use a good old-fashioned axe," Jim murmured.

"I think we can force our way through," Ken said. "We've got Earth-developed muscles."

He walked up to a tree and seized a thick vine. A quick jerk ripped it away from the trunk of the tree.

"You're elected, Ken," Jim laughed. "Break a path for us."

Ken shrugged and plunged into the thick undergrowth, pulling and tearing at the vines and creepers that blocked the way.

The going was slow at first, but became considerably easier as they advanced further into the forest. The trees were not as close together and the vines were fewer.

It was pleasant walking through the forest. Around them were the faint rustling sounds of leaves and branches moved by a gentle breeze.

"The air is fresh and in motion," Dig said. "Feel it?"

“Yes, there must be a powerful air conditioning system.”

“Air pumps to circulate this atmosphere and machines to run them need power,” Ken said. “Lots of power.”

“I wonder what they're like,” Jim mused. “The Asterians I mean.”

“Asterians?” Ken asked.

“People of this asteroid,” Jim replied. “Mars has Martians; an asteroid has Asterians.”

“Space Explorers find mysteries,” Dig chuckled. “The Space Research bunch has to explain them.”

“Well, Dad will come here with his team and we'll get the answer,” Jim said. “It may take time, but they'll find out who built this world inside the asteroid... and why... and how.”

Remembering the old spacesuits they found rotting in one of the rooms, Ken added, “And maybe find out how long ago this place was built.”

The forest, they discovered, was fairly narrow, running like a protective belt along the sheer walls of the vast cavern. Before long, the boys saw a great plain of grass through the trees.

Keeping hidden, they surveyed the grassland. It stretched away for miles, as far as they could see. Several miles away, close to the center of the grassland, they saw a small grove of trees.

“We can go along the side, keeping within the forest,” Ken pointed out. “When we get near those trees, we can make a dash across the open field.”

The boys agreed to Ken's suggestion and started off, staying within the line of trees.

When they reached a place near the grove, they paused. Dig pointed toward the trees.

“There's something moving out there. Animals grazing, I think.”

For several minutes, the boys watched in silence. Bulky dark shapes were moving through the grass, partly hidden by the grove.

“Looks like a herd of cows, only they're too small to be cows. More like goats.”

“Small spacesuits... small cows...?” Ken shook his head, puzzled.

“I've been wondering about that, too,” Dig said. “But let's get over to those trees and have a look at the herd before we jump to any conclusions about this asteroid world.”

Crouching, the three boys ran swiftly across the field. They felt the light gravity of the asteroid as each step carried them more than twenty feet at a leap. They covered the distance quickly.

“We'll cut right through the grove. Be careful not to make any noise when we get to the other side,” Dig said.

They were halfway through the trees when they heard a sound that made them stop suddenly. They listened, puzzled.

Someone was playing a musical instrument, the melody flowing sadly through the air.

“Music!” Ken exclaimed. “A flute... or a pipe!”

The three boys exchanged looks.

“A shepherd?” Ken asked in a whisper.

Jim shrugged. “Someone keeping an eye on the herd.”

“We seem to accept the fact that it's a human being,” Dig whispered, a grin on his freckled face. “Well, let's have a look at this Asterian.”

They began to creep forward cautiously. Ken swung out to one side. Dig to the other, and Jim continued in the center.

In a short time, Ken and Dig disappeared silently in the grass, and Jim continued inching forward alone. The music guided him and when he reached the edge of the grove, he realized that it came from behind a lone tree somewhat beyond the others.

There was an open space between the grove and the tree. Jim lay flat in the grass and began to creep toward it.

Just as he reached the tree, the music stopped. Jim lay

still and waited. When the music did not resume, he raised his head slowly and peered around the tree.

He suddenly found himself staring into the frightened face of a boy only inches away!

The terror-filled eyes were gray, Jim noticed in that moment, with tiny flecks of gold around the dark pupils. The boy's hair was jet-black and curly and his skin had a curious golden hue.

Then, with a piercing shriek, the boy leaped away!

Too stunned to move, Jim watched Ken appear unexpectedly and in two quick strides cut off the boy's escape.

But, like a frightened animal, the boy twisted in mid-air and changed the direction of his flight. Dig suddenly rose out of the grass, directly in the boy's path. Before the boy could turn, Dig had him firmly in his arms.

For a moment he struggled desperately, then the fight went out of him and he suddenly stood still, his head bowed down.

The boys looked at the Asterian curiously. He was less than four feet in height. Hanging from his neck by a leather thong was a reed-like instrument that dangled against his bare chest. He wore leather breeches that came down to his knees.

Jim shook his head. "Now, what do we do with him?"

"Make friends," Dig answered. "Let's sit down by the tree."

"There's one good way of making friends," Dig said when they were seated on the ground. "Animals understand it. People, too. Food."

"I've got a pocketful of food packs," Jim said.

"Break one up and pass it around."

Jim did so, and the Asterian boy took his share and immediately bit into it. When they had finished, the boy reached into a leather pouch he carried at his side and took out a round biscuit. Breaking it up, he handed each one of them a piece.

"I guess he wants us to eat it," Jim said. He took a bite

of his piece and let out a grunt. "Ow! My teeth! It's hard as a rock!"

"Eat it and like it!" Dig said, a big grin on his face.

They finished the biscuit and sat looking at each other. The Asterian boy smiled and waited.

"How do we begin talking to him?" Jim asked. "Or do we just sit and grin at each other?"

As if he understood, the boy tapped himself on the chest.

"Kero," he said.

"That's how it's done," Dig said. He pointed to himself and said, "Dig."

In turn, Kero pointed to Jim and Ken and learned their names.

"He's dressed like a savage," Ken remarked. "But he's smart enough to start teaching us."

Kero grinned. He pointed to Dig's head.

"Red hair," he said, proudly. "Red hair!"

His words hit the boys like a bombshell!

"Did... did you hear what he said?" Jim gasped.

"He must have learned it from Dad!" Dig cried. "How else would he know the words?"

In his excitement, Dig seized the boy by the shoulders.

"Where is he?" he shouted.

Frightened, the boy drew back. He stared at Dig with eyes that suddenly filled with terror.

Dig shook the boy roughly. "Tell me!"

"Stop it. Dig! You've scared him! Let him go!" Ken cried sharply.

"I'm sorry," Dig said quietly. He released the boy and started to turn away.

At that moment, there was a vicious snap and something whizzed past Dig's head and thudded against the tree. A steel arrow was quivering in the tree trunk!

15 The Threat of Otaru

THE vicious impact of the arrow against the trunk of the tree caught the boys by surprise. For a fraction of a second, they stared, aghast. The next instant they had thrown themselves to the ground.

Without raising his head, Jim asked, "Why should anyone shoot at us?"

"Start crawling toward the trees," Dig said. "It's all my fault. Anyone seeing me grab Kero would think I was hurting him."

"Hold it," Ken whispered. "Look at Kero."

The boy was on his feet, advancing slowly with his hand raised over his head.

"Kia!" he called out. "Kia!"

The tall grass nearby was thrust aside and a girl rose to her feet. In her hand she held a small bow, a steel arrow fitted to the string.

Her long, black hair was braided and hung loosely over her shoulders. She wore a soft leather dress that reached to her knees.

Kero spoke to her in a rapid flow of strange words. After a while, she put away her bow and advanced toward them.

Kero pointed to the girl.

"Kia," he said. He then pointed to each of the boys, revealing a keen memory by naming each of them.

"Dig... Ken... Jim!"

Kia pronounced their names, then sat down on the ground and waited while the boys formed a half-circle opposite her.

She brought out a biscuit and broke it into parts.

Taking his piece, Jim groaned, "Here go my teeth again!"

"It's a ceremony," Ken said. "Exchanging food is usually a sign of friendship."

"A few more such friendly ceremonies and I won't have

any teeth left.”

After the biscuit was finished, the boys passed out pieces of a food-concentrate bar. While they were munching on this, Ken looked at the girl.

“Red hair,” he said, pointing to Dig.

“Red hair,” the girl said clearly.

“Who taught you these words?” Ken's voice was friendly, casual. But he waited tensely for the reply.

Kero looked at his sister and she shook her head, frowning.

“I think she understands what you want. Ken,” Jim muttered.

The girl threw a quick glance at Jim. Then a flush spread over her face and she sprang to her feet. Over her shoulder, she gave a quick order to Kero. The boy immediately ran off toward the animals grazing nearby.

“Looks like you were right, Jim,” Ken said.

Kia turned to them suddenly.

“Come,” she said, pointing in the direction of the cave wall.

“Come! Taroo village!”

The three boys stood up. Kia was striding away without looking back.

Ahead, Kero was driving a herd of cows no bigger than sheep and the boys looked at them curiously.

“At least we know they have pigmy cows here!” Jim chuckled.

“Let's see where she wants to take us.”

The boys walked carefully to keep themselves from suddenly bouncing off the ground. Kero and Kia, however, appeared perfectly at ease in the light gravity.

As they left the grove of trees behind. Ken increased his pace and caught up with the girl. He walked beside her for a few minutes, then pointed to Kero.

“Your brother?” he asked.

The girl nodded. “Kawa.”

Ken pointed to Jim. "My brother," he said. "Kawa."

Kia laughed lightly, "Kawa, yes," she said.

They walked on in silence while Ken wondered how well she knew their language. Could he ask about Dig Allen's father, he wondered? He decided to try.

"Red hair," Ken said slowly and carefully. He pointed toward the cave wall they were approaching. "Red hair in Taroo?" he asked quietly.

Kia remained silent, turning her face away from him.

"Please tell me," he pleaded.

Suddenly the girl stopped and faced him.

"Yes!" she cried. "Red hair in Taroo village!"

"He taught you to speak our language?"

"Yes!"

"Is he there now?"

"No!"

"Where is he?"

The girl refused to answer. She hurried ahead and all Ken's pleadings were in vain. Seeing it was useless to question her any more. Ken dropped back to join Dig and Jim.

"We heard," Jim informed him. "But what's the mystery about? Why is she behaving so strangely?"

"I don't know," Ken replied. "But six months is a long time. Anything could have happened."

Dig shook his head but remained silent.

With the endless grassy plain around them and the bright glow from the roof, the boys soon forgot they were actually inside a cave. It seemed, instead, like a large, pleasant valley. Ahead, the rock walls resembled steep cliffs rising skyward.

At the base of the stone wall they soon spied a bare patch of ground, beaten flat by countless feet. In the wall itself they could see many openings to individual caves. Asterians moved about leisurely, and children were playing.

As they reached the cave village, the people stopped to stare at them sullenly but without any sign of surprise. Here and there, the boys noticed faces distorted by fear.

The Asterians were all short, with black curly hair and golden skins. All were dressed in leather clothes similar to those worn by Kia and Kero.

“They're not very curious about us,” Jim remarked. “And they're not friendly.”

“But they are afraid,” Dig added. “I wonder why.”

Kia walked stiffly past several of the cave entrances. No one spoke to her. Finally she stopped before one of the caves and motioned to the boys to enter.

Stooping slightly, they walked inside. The cave turned out to be a clean, well-lighted chamber, round in shape and some thirty feet at its widest. Slabs of glowing tile were hanging on the wall, supported by leather thongs.

Kia led the boys to several grass mats spread out on the floor.

“Wait,” she said, pointing to the mats, and left the cave.

When they were alone. Dig moved casually about the room.

He examined one of the light-giving tiles. The edges were broken and chipped, but the surface was smooth and he touched it.

“No heat,” he said. “And yet it radiates light!”

“These people seem uncivilized, but they have this tile which is better than anything our scientists can produce!”

“Perhaps they were once highly advanced,” Ken said.

Dig sat down on one of the grass mats. “Old Dorkas thinks this asteroid is a spaceship.”

“It's a hidden world,” Ken said. “But not a spaceship.”

Dig chuckled. “I wonder what Sergeant Brool is going to think!”

The boys were still chuckling over the surprise awaiting the Guardsman, when Kia returned.

A man and a woman followed her in.

“Father Tokee... Mama Leea,” the girl introduced her parents.

The two Asterians bowed politely. Then Tokee joined the boys on the mats while Leea went to the side of the cave and busied herself with several clay bowls.

Kia sat down and began to talk to her father in a low voice. After several minutes, she turned to the boys.

“Father Tokee say I tell you,” she announced.

The boys held their breath, waiting. Tokee avoided their eyes and stared up at the wall over their heads. Finally Ken spoke to the girl.

“Where is Father Red Hair?”

“Father Red Hair in Garoo!”

“What is Garoo?” Ken asked.

“Taroo here. People live,” Kia explained. She pointed to herself, her father, to each of the boys in turn. “People live,” she repeated. She then pointed down at the ground. “In Garoo, people no live.”

She closed her eyes and threw her head back, crossing her hands over her chest at the same time.

Her meaning was clear!

“Taroo is the world of the living,” Ken said haltingly. “And Garoo... is the world of the dead!”

Except for the faint sounds made by Leea in the back of the cave, the place was silent. No one moved, no one said a word for several moments.

At last Dig sighed and raised his head. His face was pale, his eyes glinted like hard steel.

“How did it happen?” he asked.

“Father Red Hair search many things here. He dig in ground and do bad thing.”

“What did he do?”

“He look to see how tree eats!”

“Captain Allen dug up the roots of one of the trees. It could be he broke one of their superstitious rules!” Ken said.

“But that means that he was killed for it!” Jim exclaimed.

“Will you show us where Father Red Hair did this thing?” Ken asked, turning to the girl.

The girl shook her head. “Bad thing. Punish by all the people. Send you to Garoo.”

Jim suddenly leaned toward the girl, his eyes alight with excitement. He pointed down to the ground.

“Is Garoo down there? That way?”

The girl nodded, watching him closely.

Jim turned to Dig. “There are other levels of the asteroid down below. We know it. But these people don't!”

“You mean,” Ken said thoughtfully, “that Captain Allen might have been exiled to another level?”

“Yes!” He turned to the girl. “Show us where this happened to Father Red Hair! We are not afraid of Garoo! Do you understand?”

“Yes,” the girl said, then turned to her father. Solemnly she nodded. “I take you!” the girl said. “We eat first, yes?”

Before the boys could reply, there was a commotion outside the cave opening. A moment later, a man leaped into the room. He brandished a steel-pointed spear at the boys. Several men crowded in behind him, each armed with a spear.

“You say nothing,” Kia whispered to the boys. “Do nothing. Sit!”

The man pointed his spear at Dig, staring at his red hair with eyes full of hatred.

He shouted something in the Asterian language, then drew himself up to his full height.

“Otar!” he cried, and struck himself on the chest.

He aimed his spear at Dig a second time and let loose a stream of swift, angry words.

There was no mistaking the menace in his voice!

16 Otaro's Treachery

NO ONE moved while Otaro snarled and shouted and threatened with his spear. Tokee sat cross-legged, his face hard as stone, his eyes fixed straight ahead.

When Otaro finally paused, Tokee leaped to his feet. Angrily he faced the intruder. A violent argument followed and Otaro began to retreat, backing toward the cave entrance. Then, with a last threat, he slipped out and was gone.

“What were they saying?” Ken asked Kia.

“Otaro say you all go Garoo. Very bad like Father Red Hair. Tokee say get out. No afraid of Garoo. No afraid of Otaro. Too many good people go to Garoo. No more!”

Tokee turned to his daughter and spoke to her in the Asterian language. Kia translated.

“Father Tokee say Kia take you to see what Father Red Hair do.” She rose to her feet. “Come.”

When they stepped out of the cave, they found the people had gone into their own caves and the village was deserted. Kia looked about.

“There be trouble,” she said, uneasily. “Come quick.”

She led the way along the cliff, past the last of the caves, to an open doorway. Inside, they found a room with metal-plastic walls and the typical glowing ceiling. The room was bare except for a large, square metal box standing in the middle.

Kia pointed it out to the boys.

“Father Red Hair ask where we get eat. This give us eat always.”

Curiously, the boys examined the metal box. It stood some two feet off the ground and had a trough filled with a gray mash.

“Take out all, more come in,” she explained. “Come from bottom.”

After staring at it for several minutes. Ken turned to his companions.

“You know what I think? This used to be some kind of a barn and that mash was food for the cattle these people had.”

“And now the people live off this mash,” Jim said. “And from what Kia says, have lived on it for generations.”

Dig examined the trough carefully and found a black spot on the base near the floor. He pressed it and a panel slid open.

Two thick pipes, coming straight up from the ground, connected to the bottom of the trough.

“Pipes seem to be made of some kind of metallic plastic,” he pointed out. He tapped them. “And hard as steel.”

“There must be a food converter on one of the lower levels,” Ken said.

“I understand Dad's curiosity,” Dig remarked slowly. “Next step is to find out where the stuff comes from. Converters must have something to convert into this mash.”

“The plant life on this asteroid!”

“That's right, Jim.” Dig turned to Kia. “Take us to the tree where Father Red Hair dug up the roots.”

“You come,” the girl replied.

From the room, Kia led them across the open field to a grove of trees a half-mile away. As they slipped in among the trees, Kia cast a worried glance over her shoulder.

“Afraid of trouble?” Ken asked quietly.

“Otarō make trouble,” the girl told him. “Come.”

She slipped between the trees like a shadow and the three boys hurried after her. Presently they reached a small clearing within the grove. Kia pointed to one of the trees.

“There,” she said. “You go.”

While the boys hurried ahead, she remained standing, listening and constantly looking back.

They found a hole dug at the foot of the tree and Dig jumped down into it. Two thick roots led from the tree straight into the ground. Dig scraped the dirt off them,

tapped them with his knuckles, then turned to Jim and Ken.

“These aren't roots,” he said. “They're pipes, just like the ones that bring up the mash!”

He climbed out of the hole quickly.

“The trees are natural,” Ken said thoughtfully, “but they must be nourished by artificial means! It looks as though the sap is drawn down and converted into food for animals and people too, I guess.”

“Let's go back,” Dig said quietly.

They rejoined Kia. Silently, they followed her out of the woods. The discovery left the boys with a feeling of wonder at the miraculous science of the people who had made this asteroid world.

“And for discovering this,” Dig murmured, “they did... something to my father!”

“We weren't any better in ancient times,” Ken remarked. “We treated scientists and discoverers pretty badly on Earth, too.”

At the edge of the grove they found Kero waiting for them. He said something to his sister and she turned to the three boys.

“Otaro make trouble. We go back, quick! Quick!”

With Kero at her side, she broke into a trot, loping easily over the grassland. The boys hurried after the two Asterian children.

A crowd of men were moving about the cave openings. Otaro was waving his spear and shouting at them.

“We go back to cave of Tokee and Leea!” Kia hissed. “We run fast!”

But as they approached, the spear-carrying group advanced to meet them. They spread out into a crescent-shaped line, holding their spears at their shoulders, ready to throw them.

Suddenly a voice shouted to Otaro. It was Tokee, coming out of his cave, spear in hand. Behind him came several other armed men. Leea appeared, holding a bow and arrow, ready to shoot.

The men with Otaro stopped and turned to face Tokee's little group. They hesitated for a moment, then began to retreat sullenly. Otaro's furious shouting failed to rally his supporters.

A path opened through the crowd and Kia quickly led the boys through it to the cave.

“Go in cave,” she cried, picking up her bow and quiver of arrows. “You wait, yes! No talk!”

“I guess they don't want us to butt into their fight,” Jim said once they were inside the cave. “But I feel we're to blame.”

“If showing us what Captain Allen did was so dangerous, why did Tokee agree to do it?” Ken asked.

“I have a feeling this fight among them was bound to come,” Dig said. “I think Otaro and the others have been sending too many people to Garoo. Tokee seems to be against superstitious fears.”

Outside, the crowd began to disperse and soon everything was quiet again. Tokee came in, followed by his wife and the children.

“We eat,” Kia said, indicating that they were to sit down on the grass mats.

Leea brought them bowls of gray mash with pieces of meat floating in it. They ate silently, using their fingers to fish out the chunks of meat.

After the meal, they relaxed on the grass mats and Kia told them about the quarrel with Otaro.

“Father Tokee angry with Otaro for long time,” the girl told them. “Father Tokee say Garoo is bad. But being afraid of Garoo is much worse. He no more want to be afraid of Garoo.”

“Your father is right,” Ken said. “At least, we think so. And we're sorry if we brought on this trouble for your people.”

“Otaro always make trouble,” the girl assured him. “Otaro bad all the time. Push many into Garoo.”

Jim leaned forward. “Push into Garoo?” he asked.

“So,” the girl said. “Push... push... push down... down!”

Go to Garoo way down. Black, no light.”

“Where?”

The girl made a vague gesture. “Down!” She pointed to the ground.

“We are not afraid of Garoo,” Dig said, his eyes fixed on the girl's face. “What can you tell us about Garoo?”

“It is no light. It is place of very evil things. Bad people go there!”

She struggled to find words to express her thoughts.

“I don't think they have a clear idea of what it is,” Ken said.

“Too much superstition.”

“They're afraid of it, that's sure,” Jim said. “And people are always afraid of the unknown.”

Leea brought several grass mats and handed them to the boys. She said something to Kia who explained to the boys that

Leea suggested they go to sleep.

“Just like our Mom,” Ken laughed. “All right. We'll go to sleep.”

Kia left them and joined her family on the opposite side of the cave. Kero walked around the chamber, turning the glowing tiles around so the light-giving side was against the rocky wall.

It was dark in the cave. A dim light came through the opening. The boys stretched out wearily.

“It's been a long time since we've had any sleep,” Jim remarked. “Ages ago on the *Viking*.”

“I've lost track of time here,” Ken said, stifling a yawn. “How long is it since we entered the asteroid? Days? So much has happened!”

“About a day or so,” Dig told them. “We'll sleep well.”

“Say, I wonder where Sergeant Brool is right now. Can't be too far behind us.”

“It'll be good to see the Sarge again,” Ken murmured. He turned over and was soon asleep.

Dig lay on his back for a long time, staring at the darkness. They had come a long way since their first meeting on board the *S.S. Pioneer*. No better spacemates ever blasted off. Dig thought. With a smile on his lips, he finally fell into a heavy, dreamless sleep.

For a long time, everything was quiet inside the cave and out. Then, the stealthy, muffled sound of footsteps broke the silence.

A moment later, a shadowy figure crept into the cave. Silently another figure followed him. One by one, others slipped inside and spread out through the chamber, surrounding the sleeping figures.

The men carried bulky nets in their arms and these they spread out cautiously. Then, at a signal, the nets were dropped over the sleepers.

With a shout and a rush, more men swept into the cave.

The boys were startled out of their sleep. They felt the crush of men about them in the darkness. The nets of leather were pulled tight around them.

They were prisoners!

17 The Bottomless Pit

ROUGH hands forced the boys to their feet. The glowing tiles were turned and light filled the cave.

Tokee and Leea were pressed back against the wall by a ring of spears. Kia and Kero were held by two men while a third tied their hands behind them with leather strips.

Otaro stood in the center of the chamber, a sneer on his lips. At a word from him, several men seized Dig and tied his hands.

Ken was next, and then the men turned to Jim.

But the moment the net was loosened, Jim lashed at the nearest Asterian. His blow struck the man on the shoulder and he collapsed with a groan.

“Don't, Jim!” Dig cried. “You don't realize how strong you are compared to these people!”

Jim looked down at the man he had struck. The Asterian was lying still, moaning softly. Jim turned away, frightened at the thought of having hurt the man.

“They attacked us. Dig. What should I have done?”

“We've got to find a way of making friends with them, Jim. We've stumbled upon a strange world, a treasure house of science! We must prove we're friendly.”

“All right,” Jim agreed reluctantly. He turned to Kia. “Tell them I'm sorry I hurt the man. Tell them we want to be friends.”

The girl spoke to the Asterians, but Otaro laughed cruelly at her words.

The wounded man was taken away and Jim's hands were bound in front of him. The man who tied the knots smiled up at the boy, and the bonds were loose.

The entire village was waiting when they were brought out of the cave. A circle formed around them and Kero and Kia were pushed in with the three boys, but Tokee and Leea were kept back.

Otaro held up his spear and the people turned toward him. He began to speak and Kia translated for the boys. She

kept her voice low, hardly above a whisper.

“Otarō say we go Garoo. Do same thing Father Red Hair do. Otarō afraid of Garoo. His father and fathers of all also afraid of Garoo. He say we go to Garoo!”

When Otarō finished, he stepped back and Tokee entered the circle. He too raised a spear above his head as he spoke.

“Father Tokee say he is tired of being afraid of Garoo,” Kia continued to translate. “He say you good. Red Hair good. Red Hair wise man. Say we must find out about Garoo, not be afraid.”

When he had finished, the circle began to break up as the people took sides. Soon there were two groups facing each other. The largest number had joined Otarō.

“That's the vote, I guess,” Ken said. “We lose.”

Tokee laid his spear on the ground. The men who had supported him placed their spears on top of his and one by one walked back to their caves.

Leea approached her children and hugged them. She bowed her head to Jim, Ken and Dig and silently went into her cave. Tokee then stepped forward and embraced Kia and Kero. He, too, bowed to the boys. A moment later he had disappeared into the cave.

Otarō gave a triumphant shout. Several men dropped their spears and seized the boys. They were dragged in the direction of the cliff, beyond the last of the caves.

“Where are they taking us?” Jim called out.

“Looks like a hole in the cliff ahead!” Ken answered him.

Otarō had the boys brought to the edge of a great jagged opening in the ground close to the foot of the cliff.

“What's in there?” Dig called to Jim who was nearer.

“A big, dark hole!”

Jim kicked a pebble over the edge. The boys waited for the pebble to hit bottom. But there was no sound.

“Looks like a bottomless pit,” Jim said. “And we're going to be pushed into it! I think we ought to make a fight of it!”

He twisted suddenly and the swing of his shoulders hurled away the two men holding him.

“Stop it!” Dig cried.

“What's the matter?” Jim turned to his friend. “Are you going to let them throw us over?”

“Yes,” Dig replied. “Trust me, Jim. It's the only way—”

At a command from Otaro, two men seized Ken and hurled him into the black hole!

“Oh, no!” Jim cried out. “Ken!”

With a vigorous shake of his shoulders. Dig threw his captors off. He walked to the edge of the pit and turned to Kia and Kero. The Asterian children were staring at him with terror-filled eyes.

“Don't be afraid,” Dig said.

The next instant, to the utter amazement of the Asterians, he jumped into the bottomless pit!

Stunned by his friend's strange behavior, Jim was barely aware of the hands that seized him. He felt himself pushed over the edge into darkness.

A momentary terror swept over him! Then his fear gave way to astonishment. He was drifting gently downward!

Out of the dark below him, he heard Dig's cheerful voice.

“Are you all right, Jim?”

“Yes. How's Ken?”

“I'm fine,” came from below.

“I forgot all about the light gravity here!” Jim laughed. “What a spacedope I am!”

“We won't argue about that. I feel too good. Dad was thrown over this way. Now we have a chance of finding him.”

Jim twisted his body to look up. Kia and Kero were falling, outlined against the dim light of the opening.

“Kia! Kero! Don't be afraid!” he called.

There was no reply. He turned to look down.

“Do you see bottom. Ken?”

“Nothing but darkness below.”

They fell slowly, silently. The light above became a faint pinpoint, then vanished altogether.

“It must be pretty awful for Kia and Kero,” Dig said. “We’re used to falling through space.”

“Speak for yourself. Dig! I feel as though I’ve lost my stomach somewhere about a mile above us!”

They could not judge the speed of their fall. They were floating down through total darkness.

Suddenly Ken called up to them.

“There’s a light below!”

“A light?”

“Yes. An opening of some sort. And I can see the bottom.”

“How fast are we falling?”

“Not too fast. Dig.”

“I’m thinking of Kia and Kero. They don’t know how to brace themselves for a drop.”

“We’ll break their fall with our shoulders,” Ken suggested.

“Try to sort of catch them...”

There was silence for several minutes, then a heavy thud. Ken had landed.

“I’m down and all right,” the boy called.

Another thud, and Dig had landed. Now it was Jim’s turn. He gave his body a slight twist, saw the upturned face of his brother looking at him. His knees buckled as he hit the floor.

“Here comes Kia,” Ken called out. “Get out of the way, Jim!”

Off-balance, Jim scrambled aside. Ken leaned forward and Kia landed on his back. Both dropped to the floor in a heap.

“Here comes Kero!” Dig stepped over Ken and braced himself as the Asterian boy hit his back.

For a moment they lay in a tangled heap on the floor.

“Good thing the Asterians are small,” Ken laughed as he got to his feet. “That wasn't an easy fall. The gravity here must be stronger than up on the other level.”

“Let's get out. There's a corridor here...” Jim stepped through the opening.

The place was quiet and deserted. Across from him stood a massive structure. It was made of a dark, highly polished metal.

“Looks like a building of some sort,” Jim said, looking up at it. “Seems to be about a whole block big and...”

He stopped and stared with his mouth open wide.

“What's the matter, Jim?”

“There are more of them,” Jim cried. “Blocks and blocks of these buildings!”

“They're not buildings,” Dig corrected him excitedly. “They're machines!”

Tall as six-story buildings, the huge machines towered over the little group. Along the front of each structure ran a platform, twenty feet above the floor, with metal ladders at each end.

Banks of strange meters ran along the face of the machines, and here and there, lights flashed on and off.

“What do they do?” Jim asked in an awed tone. “They stand there so quietly. No moving parts, just those lights.”

“They could be atomic engines,” Ken said. “Enough power here to supply every need of the asteroid!”

“The asteroid? There's enough here for the whole Solar System!” Dig stated. “There's no end to them! Hundreds of them!”

They approached the nearest machine, and looked around the corner. Far down the aisle, they could see more machines, behind the first one. They felt like tiny ants as they turned and gaped about them.

“The center of gravity on this asteroid is here,” Dig told them.

“The rest of the place must be pretty hollow. That's why we fell down to this place. These machines must weigh

millions of tons.”

“What are they made of?”

“That's for your father to find out. Ken. What they are and what they're supposed to do, that's a job for Space Research!”

“Which brings us down to practical things,” Jim said. “Let's get our hands untied. Turn around, Dig. I'll work on your knots first.”

He had just started on the leather knots, when Kia huddled close to him. She and Kero had been silent throughout their fearful fall down the pit. Now, trembling, the girl whispered to Jim.

“Garoo come! Listen!”

They raised their heads alertly. Faintly, in the distance, there was the slap of bare feet on the metal floor.

“Garoo people!” Kia said fearfully.

“Down this aisle,” Dig cried. “Hurry! We've got to find a hiding place!”

They had gone only a few feet when they saw several men turn the corner ahead of them. The men were dressed in ragged and patched leather clothes. They held long iron rods in their hands.

“Back up!” Dig ordered.

But even as they turned, another group of the Garoo people appeared behind them, cutting off their retreat.

“If only our hands weren't tied!” Jim cried angrily. The Garoo people advanced slowly, cautiously.

“Stand still,” Dig said quietly. “Try to act calm.”

Suddenly there was a fierce shout. The men raised the iron rods over their heads and charged!

18 The Man with the Scar

JIM, Kero and Kia huddled behind them, the three boys W stood quietly as the attackers surged toward them.

But, fierce as the charge was, the attack never reached them. The men of Garoo stopped a few feet away and began to encircle them stealthily.

“They're afraid,” Jim said.

“No, it's Dig's red hair!” Ken whispered. “Look at them staring at it!”

One of the men came closer and peered past Jim's shoulder at the two Asterian children. Suddenly he waved his iron rod in front of Jim's face, and shouted something at him.

When Jim didn't step back, the man suddenly pushed the boy aside. He seized Kia and dragged her from the group.

“Kia!” the man cried. “Kia!”

The frightened girl looked up into his face. The next instant she threw herself into his arms, crying.

“Ayokee! Ayokee!”

“She knows him!” Jim shouted. “Who is it, Kia?”

The girl turned a smiling face to him. “Ayokee Kawa! Kia remember when Otaro send Ayokee to Garoo!”

“And the rest of these people?” Dig asked.

“Many come from Taroo village, long time ago. Kia does not remember!”

The attackers now vied with each other to help the boys free their hands. Kia brought her little brother to Ayokee and the man embraced the boy.

“Ayokee say plenty food here in Garoo,” Kia told the boys.

“Food box like in Taroo. But no grass here, no tree.”

“Ask him about Father Red Hair,” Dig asked. “I think they recognized my hair.”

“Yes,” Kia said. “They know Father Red Hair. Him good

friend, they say.”

“Where is he?” Dig asked hopefully.

“Him go away long time.”

“Where did he go?”

Kia exchanged a few words with her uncle.

“Him go into wall,” the girl said, frowning in a puzzled way.

“How could that be?”

“Ask Ayokee if he’ll show us where it happened,” Dig asked urgently.

Again the girl exchanged words with the Asterian.

“He show you where,” Kia told Dig.

They left the strange group of ragged exiles and followed Ayokee. He trotted past the rows of huge machines with Kero and Kia leaping happily after him.

The pace was fast, but the three boys had no trouble keeping up with the Asterians. The boys were feeling cheerful, for this time the news about Captain Allen was not followed by some doubt as to his safety.

They travelled for miles before they came to the last of the great machines. Beyond was the end of the enormous chamber. Ayokee turned and ran along the wall for some distance. Finally he stopped and pointed to a black spot on the wall.

“This could be the same elevator we came down,” Ken suggested as he stepped up to the black spot. “Shall I press it?”

“Of course!”

He pressed the black circle.

They had to wait several minutes before the door opened, and when it did, they saw the square, box-like room of the elevator.

Jim stepped in and looked at the wall with its vertical line of black circles.

“The elevator,” he announced.

“Come with us,” Dig said to Kia and Kero.

They hesitated. Ayokee said something to them in a warning tone.

“Ayokee say we stay here with people. Bad to go into wall!”

“No, Kia. There's nothing to be afraid of. Come with us!”

Ken took Kero by the hand. “Come,” he said.

Gently, Ken pulled the boy into the elevator, and then held his hand out to Kia. Slowly, dragging her feet along the floor, the girl came into the elevator too.

Ayokee backed away, calling to her all the time. But Kia shook her head at him and he became silent.

Dig entered the elevator.

“Ayokee be afraid,” Kia explained. But her own voice trembled as she spoke.

Dig gave the man a friendly wave of his hand.

“Let's get started,” he said. “Someday we'll be back and then Ayokee will come with us!”

“Where to. Dig?”

“The middle level,” Dig replied. “I want to show Kia and Kero how to return to the world from which they came!”

Jim pressed the middle spot. When the door suddenly closed, the Asterian children huddled close to Jim.

“What thing is this?” Kia asked.

“It will take us to the land where Taroo is,” Jim explained.

“Where Father Tokee and Mother Leea live?”

“Yes.”

Kia looked doubtful. “Kia and Kero are Garoo now,” she said.

“No more Garoo!” Ken said. “No more Garoo ever!”

The door slid open and they saw the bright light and the forest of the middle level. Both Kia and Kero recognized the place at once. They leaped out with wild cries of joy.

The boys followed more slowly, and while Jim and Ken watched the children's antics, Dig brought out their spacesuits.

He took off the power supply packs from the spacebelts, hooked one to his own belt, and tossed the others to Jim and Ken.

They caught the packs and hooked them into their belts.

“What's it for?” asked Jim.

“I'll show you,” Dig replied. He picked up his spacehelmet and disconnected the radio communicator system. He slipped the little microphone around his neck so that it touched his throat. The earphones he placed over his head.

“All right, get your radicom. From now on we're going to keep in contact with each other if we have to separate. And we may pick up Sergeant Brool's signal when he gets near the asteroid.”

While putting on his radicom, Jim asked Dig about Captain Allen's spacehelmet.

“I was wondering if he took out his radicom.”

“No,” Dig replied. “I checked for that right away.”

They finished adjusting their radio communicator systems and plugged in the power packs. When they were ready, Dig replaced the spacesuits under the jutting rock and covered them over with the grass.

“Where do we start our search?” Ken asked.

“At the top level,” Dig answered. “We'll start there and work down, level by level.”

“That will take days, maybe weeks,” Jim protested. “There should be a better way.”

“We've got time,” Dig replied. “There's every reason to believe Dad's alive. And Sergeant Brool will be here pretty soon. We'll have help.”

“All right, we start at the top,” Jim agreed.

“We go look for Father Red Hair,” Dig said to Kia and Kero.

“Come with us.”

With a last glance at the bright world of the middle level, the Asterian children turned and followed Dig toward the elevator.

At the door. Dig paused and motioned for Kia to step in ahead of him.

But just as she was about to step through, the door closed. She was left standing in front of a blank wall, amazement on her face.

Openmouthed, the three boys looked at each other, then back to the wall where the door had been open a few seconds before.

Someone on the asteroid was using the elevator!

"It must be Captain Allen!" Jim cried.

"How do you know?" asked Ken.

"The Asterians are afraid to use it!" Jim insisted.

"The Asterians we've met are," Ken argued. "How do we know what else is on this asteroid? It's huge! We know almost nothing about the rest of the place!"

"What do you suggest?"

"We hide somewhere and wait."

"Ken is right," Dig agreed. "If it is my father, there's no harm in staying out of sight until we know."

Dig took Kia and Kero and led them toward the jungle. Within a few minutes they had pushed their way through the heavy undergrowth and were out of sight under a tangle of hanging vines.

They waited for several minutes. Jim was becoming impatient.

"What if whoever took the elevator isn't coming to this level?"

"We'll wait and see!"

"What if someone wanted to take the elevator from us?"

"We'll know that, too, after a while," Dig answered him patiently. "The elevator might have gone to the top level or way down. Either way, the trip could be several miles. Let's wait."

"All right."

Within a few minutes, their patience was rewarded. The elevator door opened and a man stepped out.

He was an Asterian, naked to the waist, wearing leather breeches that came down to his knees. His face was clean and his hair brushed back neatly. Across his cheek ran a wide, red scar, reaching down from the forehead to his chin.

The Asterian looked about casually, then walked over to the rock under which the boys had hidden their spacesuits.

“He's going for our spacesuits!” Jim whispered.

The man pulled the dry grass out of the way and picked up one of the spacesuits. He stared down for a moment, obviously puzzled. He picked up the other spacesuits slowly. Then, with a shrug of his shoulders, he folded them over his arm and started back for the elevator.

“We'll be trapped on the asteroid if he gets away with our spacesuits!” Ken cried.”

“He won't!”

Jim leaped out of his hiding place. In three great strides, he covered the distance to the man. Dig and Ken were charging hard behind him.

The Asterian turned a startled face toward the three boys.

Sudden fear flashed over his face. He whirled and sped toward the elevator door.

Jim was fast overtaking him. Just as he reached out to seize him, the Asterian turned and hurled the spacesuits at the boy. Then he jumped for the elevator door.

The Asterian's aim was good. One spacesuit caught Jim across the chest. He stumbled and fell. A spacehelmet glanced off his head and hit Dig who was a step behind.

Ken, charging after them, tripped over Jim, and in an instant all three were on the ground—a scrambling mass of arms and legs.

The Asterian was in the elevator. The door closed and he was gone.

19 The Strange Emergency Call

THERE are others here! And they know how to use the elevators.”

Jim sat up and stared at the blank wall where the elevator door had been a moment before.

“How did he know where our spacesuits were hidden?” Dig asked, puzzled.

“Maybe someone has been watching us all the time,” Ken suggested.

“Not all the time, anyway. We surprised scarface.”

“This guessing will get us nowhere,” Dig said. “Wait a few minutes and try the elevator again.”

Dig led Kia and Kero aside and spoke to them, quietly reassuring the two children.

Jim rubbed the lump on his head. “He sure threw that spacehelmet hard.” He got to his feet and picked up the spacesuits.

“What shall I do with them?”

“Put them back where they were,” Dig called.

Ken, meanwhile, pressed the black spot and waited for the elevator to return. When the door remained closed after several minutes, he glanced at his brother.

“He either went to the top level or the elevator has been stopped so we couldn't use it.”

“He could have gone to the bottom, too,” Jim replied. “Keep trying.”

Ken did, and a few minutes later the elevator door opened. When they were inside the box-like room, Jim touched the topmost black spot.

“We start at the top,” he said.

Once again they found themselves coming out into a long corridor with metal walls and floor and a glowing ceiling.

“We're close to the outer part of the asteroid,” Dig pointed out. “Ken, keep your radicom on at all times. We might pick up Sergeant Brool's call beam.”

“You think he's that close to us?”

“I'm hoping he is.

They went down the corridor. On the walls they found the familiar black circles which indicated rooms.

“Shall we look into some of the rooms?” Jim asked, when they had covered a good distance. “It gets kind of monotonous just looking at blank walls.”

No one stopped him as he pressed the nearest spot and went through when a door opened.

“Hey! Come in here!”

It was a large room, bare of furnishings. Along the wall were several long tables and above them the walls were made of a glass-like material. Framed within the walls were brilliant, three-dimensional star charts.

“Dig, you're familiar with astro-navigation. Do you recognize these charts?”

“Not one of them, Jim!” Dig stared at the nearest one. “They don't look like our part of the Galaxy!”

He moved closer to the wall and pressed one of a row of black spots he found under the star chart. Immediately there was a flicker on the wall and a new chart appeared. But this one, too, was unfamiliar.

“This could be a navigation room,” Ken said. “They must have plotted some pretty complicated courses here.”

“If this is a spaceship,” Dig said cautiously.

“I'm beginning to agree with Old Dorkas,” Ken replied. Kia and Kero stood quietly in the doorway. This was by far a more frightening experience to them than anything they had ever known in their lives. But they watched with a stolid calm.

“I wonder if they are descendants of a great people who, ages ago, built this place?” Jim said, looking at the two Asterian children.

“I believe so,” Ken said. “And now they live in superstition! Let's get out of this room!”

They left the room and closed the door behind them. The mystery of the asteroid was becoming too much for

them. They were now convinced, though none admitted it, that it was a spaceship.

"They're like us," Ken said, glancing at Kero and Kia. "But where do they come from? Why did they forget their great science?"

Nothing more was said until they reached the end of the long corridor. Ahead, the corridor widened into a circular hall. They came into the rotunda and looked about. Just inside the round hall was an open door. Opposite them were five branch corridors.

"What do we do now?" asked Ken.

"This is the first time we've found an open door," Jim said, thoughtfully. "Let's see why!"

They peered through the door warily. The room was empty and Jim stepped inside. There was a six-sided table in the middle of the floor. One of the chairs was pushed back. A half-finished meal was on the table.

Ken had gone through to look into another room. He came back, puzzled.

"There's a bunk there. Someone didn't bother to make his bed. It's all mussed up."

Dig was staring at the plate on the table.

"Shouldn't that food have turned to dust long ago?"

"It should," Jim said, reaching out to touch the contents of the plate. He drew his hand back quickly. "It's warm!"

Dig reached out and touched it. "Someone was eating in this room not long ago."

"Well, he left in a hurry," Jim remarked. "And it could be because he heard us coming."

"Hold it!" Ken suddenly called, pressing the earphones of his radicom to his ear. "There's some kind of a signal coming through!"

"Sergeant Brool?" Dig switched his power dial on. "That's an EC signal!" he said, surprised.

"An Emergency Call? Who'd be sending it? Sergeant Brool?"

"No, it's coming from somewhere close." Dig turned to Ken.

“How long have you been hearing it?”

“Just now. I didn't hear it before.”

“We've got to find it! We'll use the radicom itself to locate it. Start moving. The beep will get louder as we get closer.”

Followed by the silent Kia and Kero, the boys went into the rotunda. Dig looked about the round area.

“We'll have to explore those passages,” he said. “Jim take the first, I'll take the next one. Ken the middle one.”

“Right.”

Dig spoke to the Asterian children. “You and Kero stay here, Kia. Understand?”

Wide-eyed, the girl nodded quickly.

“Let's go!” Dig directed. “Walk slow, listen carefully!”

They separated and started through the corridors.

Dig called, “Keep talking over the radicom. If anything suspicious happens, report at once!”

“All I see is doors and more doors,” Jim called. “And the EC beep isn't getting any stronger.”

“Mine is,” Ken called. “Quite a bit.”

“Mine is just about the same,” Dig told them.

The passageways were separating, evidently spreading out toward the sides of the asteroid.

“My signal isn't getting louder,” Jim called. “In fact, I think it's weaker.”

“Start back, Jim. Take the fourth corridor.”

“All right. Dig.”

“How about you. Ken?”

“Very loud and seems to be close by,” came the reply. “I'm getting close to the end of this corridor.”

“Jim?”

“I'm starting back, Dig.”

“I've reached the end. There's a blank wall in front of me,” Ken called. “The signal seems to be coming from the room.”

“Don't go any further. Ken. Wait until Jim and I join you.”

“Right!”

“I heard, Dig. I'm on my way.”

“Did you hear, Ken?”

There was no answer. Puzzled, Dig called his friend again. but Ken did not reply.

“What's the matter with him?” Jim called. “Why doesn't be answer?”

“I don't know!”

“Ken! Ken! This is Jim! Answer!”

There was a slight sound of static over the earphones, but no reply from Ken.

Ken had stopped before the door and turned to look back, waiting for his brother and Dig to appear at the end of the corridor.

As he stood listening to their chatter, he felt the door behind him open. He turned casually, not sure of what to do.

Suddenly, a figure leaped at him. The force with which the man struck him made him lose his footing. Both sailed through the air and came up hard against the metal wall of the corridor.

The man twisted away swiftly. Dazed as he was by the sudden attack, Ken kicked against the wall and flew at his assailant. He managed to tackle the man around the knees, and both slid along the floor.

As Ken scrambled to his feet, he saw his attacker's face. The man with the scar! He shot out his hand and grabbed the man's shoulder.

Scarface winced with pain, and Ken realized that his strength was too much for the Asterian.

He started to speak. “I won't hurt you...” but the words never came.

Someone was behind him. Ken tried to turn around.

Suddenly he felt a blow at the back of his head. The metal floor seemed to rise up and hit him in the face. Everything dimmed and then turned black.

20 The Space Guard's Command

JIM CAME speeding out of his passage and made a wide sweep through the rotunda where Kero and Kia gaped at him in astonishment. Without lessening his speed, he charged into the middle corridor.

But as he came through, he saw immediately that the narrow passage was empty. He pulled to an abrupt stop before the blank wall and stared, bewildered, at the black spot that would open the door.

A moment later Dig joined him. Further back, Kero and Kia came pattering down the hall on their bare feet.

“Where is he?” Dig gasped.

“I don't know! There's no one here!”

The room Ken was facing! Jim leaped forward and pressed the spot. The door opened and he was looking into a semi-dark room.

He motioned for the others to stay back, then slipped inside.

As his eyes became accustomed to the gloom, he saw that he was alone.

“What kind of a place is this?” Dig asked as he came in with Kia and Kero.

It was a strange room. A solid black wall faced them. The rest of the room was round, forming a half-circle whose ends met at the black wall.

A glowing strip ran along the curved wall like a ribbon, with a multitude of instruments, meters and dials set into it. Colored lights flashed on and off noiselessly.

An instrument resembling a small telescope was set on a heavy pedestal in the middle of the room.

“The EC beep is coming from that telescope!” Dig said, advancing cautiously toward it. “And here it is!”

A black ball was lying on the pedestal and he held it up.

“Looks like the kind we've got on the *Viking*,” Jim said, “and it's definitely transmitting the Emergency Call we've been tracing.”

“Of course! I'll bet Dad placed it here!”

“Oh, yeh? Then where is he? And where's Ken?”

There was no answer from Dig. He started moving about the room, searching everything. Jim watched him, then turned to the telescope. His mind was in complete confusion.

Without thinking about it, he looked through the eye-piece of the telescope but saw only solid black. On the pedestal were groups of black spots. His mind on Ken's disappearance, Jim tapped the first spot, then glanced into the eye-piece again.

The sight took away his breath. Sharp and clear, he saw the Asteroid Belt as he would see it from the surface of Eros!

He heard a cry from Dig. “Jim! The black wall!”

Jim raised his head. The black wall was no longer black! It was a gigantic screen and on it he saw the same sight he had caught through the telescope, but magnified a thousand times!

“Who did it?”

“I must have,” Jim replied. “I touched one of these black circles!”

“Try another!”

Jim did. The Asteroid Belt began to recede swiftly. Within seconds they saw the whole Solar System on the wall. It was a sight that could only be caught from outer space!

“How does it do it?” Dig asked in awed tones. “What else is there on the pedestal?”

“A black square,” Jim told him, looking over the stand before him carefully.

Dig looked at it, then placed his finger on a corner of the black area.

A white ring appeared on the image of the Solar System. The area within the ring began to grow large and shift toward the center of the screen.

“This black square is a locator of some kind,” Dig said.

He placed his finger so that the ring moved over Mars, which began to enlarge. He began to move the ring toward the Asteroid belt.

“What are you doing?”

“Going to see if I can find Sergeant Brool's spaceship! We've got to find Ken and we can use all the help we can get.”

Fascinated, Jim watched as Dig explored space. The effect on the screen was startling. It seemed that he was standing at the pilot's viewport of a spaceship, speeding toward the Asteroid Belt.

“There it is!” Dig cried. “Rocket flares!”

The *Galahad* was swinging around, approaching them. Sergeant Brool was braking his speed and turning so that he would land tail fins first.

“He's still a couple of hours away,” Dig announced, disappointed. “We could save time if I went out there and guided him in.”

“And split our forces? No, I don't like it!”

“We can't take Kia and Kero spaceside,” Dig argued. “And we can't leave them here alone.”

They discussed the matter for several minutes, and finally Jim agreed to Dig's plan.

When Dig left, Jim took out a package of food concentrate and divided it with Kia and Kero.

“Dig will be back soon,” he explained to them. “We'll wait here.”

Wide-eyed, the children ate the food, sitting comfortably on the floor. Jim boosted the power in his radicom and settled down to wait.

Dig called to report when he picked up his spacesuit, and again when he reached the *Viking*.

“How am I coming in?” he asked from the control deck of the spaceship.

“Fine,” Jim replied. “Dig? When you call the Sarge, will you have him relay a message to Dad?”

“Sure.”

“Tell him about Ken.”

“I will, Jim.” Dig switched off the short range communicator and opened the spaceiver.

“Explorer Ship *Viking* calling Patrol Cruiser *Galahad!*” Dig took a deep breath and repeated his call. “Come in, Sergeant Brool! Explorer Ship *Viking* calling...”

Wavy lines flickered on the videoscreen and a crackle of static came over the speaker. Dig focused the spaceiver and the jumbled lines formed into an image of Sergeant Brool's face.

“Digby Allen! You red-headed, freckle-faced imp of space! Where are you?” the Guardsman roared.

“On asteroid Eros, No. 433, sir.”

“Jim and Ken Barry? Where are they?” The sergeant's sharp eyes swept over the part of the cabin visible on his screen.

“Inside the asteroid, sir.”

“What?” The sergeant almost leaped from his seat.

“Please record my report. Have a simultaneous copy relayed to Space Research. Make it immediate and urgent for Dr. Keith Barry.”

The Guardsman frowned at the boy, then set a relay of switches on his control board.

“Digby Allen, we are now being recorded. You are hereby informed that everything you say is relayed to Space Guard headquarters. Anything you say may be used against you. This is an official warning, since there are a number of complaints against you.”

Dig waited patiently while the Guardsman gave him the legal warning.

“I understand, sir.” Then he added with a grin, “Our discovery will justify what I did.”

“Let's have your report, Dig.”

Dig plunged into a review of their adventures, starting with the meeting on Mars with Old Dorkas. Doubt spread over the Guardsman's face as Dig told him about the passageways and rooms inside the asteroid. And anger

replaced doubt when Dig told him of the middle level and the people of the asteroid.

“Are you spacegoofy? Do you expect me to believe this?” the Guardsman snapped.

“No,” the boy admitted frankly. “But you’ll see it!”

Sergeant Brool snorted and picked up a set of earphones from his instrument panel. He listened for a moment, surprise appearing suddenly on his face.

“I have a return call,” he said, turning to Dig. “It’s from Dr. Keith Barry. He’s blasting off at once in the Research Ship *Beagle!*” Then he added softly. “He seems to believe you!”

“That’s great!”

“I’ve also had orders from Space Guard headquarters,” the Guardsman added. “You are under arrest. I must command you to remain aboard the *Viking* until further orders. The Patrol Cruiser Lancelot with Sergeant Wingate and Corporal Jon May aboard will blast off from Mars to join me here.”

“More witnesses,” Dig grinned. “Mind if I call Jim and tell him?”

“Go ahead. But it’s no laughing matter. Dig.”

Dig opened the radicom pick-up and called Jim.

“Did you contact Sergeant Brool?” were Jim’s first words.

“Yes, and there’s a message from your father. He’s on his way here.”

“Wonderful!” Jim said. “Now listen. Dig. I’ve been picking up a strange voice over the radicom. I think it’s Asterian.”

“Have Kia listen in,” Dig told him. “Maybe she’ll understand.”

“Of course! I didn’t think of it! Hold on!”

Dig turned to the screen and winked at Sergeant Brool who watched him with a cold glint in his eyes. A moment later, Kia’s gentle voice came over the speaker.

“Men talk... say Ken is hurt.” There was a slight pause,

then she continued. "They wait for Allenee. They hiding... Ken is like sleeping ..,"

Abruptly Jim's voice came on. "Did you hear. Dig?"

"Yes. Allenee must be the Asterian name for my father. Do you think they're setting some kind of trap for him? I'm afraid of the hiding and waiting part!"

"Dig, I'm going out to try and locate them!"

"No! Wait for me, Jim. I'm coming back!" Dig called.

"You stay aboard the *Viking*, Digby!" It was the Sergeant's voice, hard and angry, cutting in on the conversation.

"I'm going. Sergeant. It may be too late by the time you get here!"

"You have received a command from the Space Guards, Digby Allen!"

"I know, sir. But I must go!"

"Disobeying a Space Guard command is a serious matter, Dig. Don't do it." The sergeant's voice was kindly, pleading.

"There is only one punishment for disobedience. You are automatically grounded for life!"

Dig made no reply. He opened a cabinet beneath the control board and took out a belt with a bolstered stun-ray gun.

"What are you doing. Dig?"

"Taking Dad's stun-ray gun," Dig replied, hurriedly strapping it on.

"You're not permitted weapons..."

"My father and my two best friends are in danger, Sergeant. I'm not going to waste time arguing regulations with you!"

"By all the rings of Saturn! You'll never be able to go into space again! Be sensible! Wait until I get there!"

"I'm going, Sergeant!" Dig turned to the communicator. "Jim? Can you hear me?"

"There's a little door here, Dig. Just where the curved

wall meets the black screen. You know where it is. The voices are coming from that direction. I'm going through."

"No, Jim. Wait for me!"

"He won't wait for you, and you won't wait for me!" The sergeant's voice bellowed angrily from the speaker. "I'll ground the lot of you!"

"Sarge, come as quickly as you can. We need you. Everything in my report is true. Believe me." Dig called Jim again.

"I'm on my way, Jim!"

"All right, Dig. Kia and Kero are coming with me." Aren't you going to wait for me?"

"No, Dig! Ken is hurt. And your father may be walking into a trap! Follow me. Dig. Follow me as quickly as you can!"

21 Captain Boyd Allen

IN THE blackness that surrounded him. Ken began to see a dim light. Gradually the light grew brighter and he opened his eyes.

He was in a strange room. From nearby came the soft murmur of voices and he shifted his head slightly. Two men were sitting cross-legged on the floor and one of them he recognized immediately. It was the man with the scar.

The floor was hard and he felt stiff all over. His head ached fiercely. His radicom had been knocked off during the fight. It lay on the floor beside him, still plugged into the power pack at his belt.

The thought suddenly struck him that if he could increase the power, the radicom might pick up the mens voices and broadcast them. And then Jim or Dig might hear and come to his aid.

His hand slipped slowly to the belt. In a moment he had turned the knob to full power.

Jim was walking back and forth through the corridor he had found beyond the door. The voices kept rising and falling and he could not understand the reason for it.

Finally he called Dig and told him about it.

"I'm in the elevator, Jim," Dig said. "I'll get off at the level below the top. See if there's an elevator somewhere near you. It's my guess that you're above die radicom. As you pass back and forth over them, the signal rises and fades!"

"I guess you're right," Jim replied.

Jim checked the doors nearby and quickly found the box-like room of the elevator. He herded Kero and Kia m and pressed the spot to drop him one level.

The voices were louder as he stepped out of the elevator. Listening carefully, he crept down the corridor. It did not take him long to find the room from which the voices came.

Motioning Kia and Kero to come with him, he called Dig. He told him he had found the room where Ken was held prisoner.

“All right. I’m on the second level. I’ll be with you in a few minutes. Wait.”

Jim pointed out the room to Kia and Kero and told them that Ken was in there. To the Asterian children, his ability to find Ken was a staggering feat. They looked at him with awe.

“We wait here. When Dig comes, he and I will go into that room. You will stay behind.”

“We understand, yes,” the girl replied.

When Dig arrived, Jim quickly led the way to the door.

“We’ll rush them as soon as you open the door. Dig. Ready?”

Dig nodded, took a deep breath and pressed the black spot. The door swung open silently.

Two Asterians were sitting on the floor. As Jim and Dig charged in, the men leaped to their feet.

Jim hurled himself forward in a blocking tackle. His body shot out like a battering ram. He hit the men across their knees before they could take a step, bowling them over and upward. His body sailed on through the air, bringing him hard against the opposite wall.

A step behind Jim, Dig grabbed the two men as they were spinning head over heels through the air. At the same time, Ken jumped to his feet. By the time Jim had staggered up, the two Asterians were firmly held by the two boys.

“Are you all right, Ken?” Jim gasped, still shaken from the impact against the wall.

“In better shape than you are,” Ken laughed.

The man with the scar twisted his head so that he could look at the boys.

“We friends. Talk same like you,” he cried.

Dig, who had been holding him, stepped back in surprise.

“Let them go,” he said, releasing the man.

The man with the scar pointed to Dig’s hair.

“Allenee like you,” he said. “I be Piro. This friend Sookee,” he added, pointing to his companion.

“Where is Allen?” Ken asked.

“Allenee go to Taroo Village. Look for you.”

“Look for us?” Dig exclaimed. “How did he know?”

“Allenee see ship coming from far away. He send me go bring spacesuit for he want to go call ship. I find too many spacesuits. Run from you. Tell Allenee. He very happy. Stop eating. Tell me set beep-beep signal. He run to find you!”

“The EC signal we traced to the telescope!” Jim said.

By the time Piro had finished his story, the boys were all grinning happily.

“But why did they attack you. Ken?” Jim asked.

“We sort of ran into each other. I grabbed at him and must have hurt his arm. Sookee saw, I guess, and whacked me over the head. I was in no condition for explanations after that.”

Kia stepped up and tugged at Dig's sleeve.

“Allenee is Father Red Hair?” she asked.

“Yes, Kia.”

“Is trouble!” the girl said. “He go to Taroo Village! Otaroo make hurt him!”

“She's right!” Jim turned to Dig. “We've got to go after him!”

“Where go?” asked Piro.

“Taroo!”

“We go, too!” said Piro.

The two Asterian men led them to the elevator and as soon as all of them had crowded in, pressed the middle spot.

“At least our numbers are a little better this time, in case there's trouble,” Jim laughed.

“I've got this,” Dig told them, slapping the holster at his side. “But I don't think there's going to be any trouble.”

“Trouble for sure,” Kia insisted with a serious expression on her face.

When they stepped out at the middle level. Dig activated his radicom.

“I’m going to call the Sarge,” he announced and sent out a call.

Jim and Ken listened in and heard the sergeant’s angry voice reply.

“Where are you, sir?”

“Just landed alongside the *Viking*,” the Guardsman said.

“Sarge, when you get to the elevator, press the large middle spot. We’ve found Ken and we’re on our way to the village to find my father.”

“Village? Still on that story?” the Guardsman sputtered in disbelief.

“Cut through the Jungle, sir. Then cross the grassland...”

“Wait a minute! I’ve had enough of this!”

“End transmission, sir,” Dig said quickly and cut off the connection before the sergeant could say any more.

“Now let’s go.”

They were at the base of the cliff almost directly opposite Taroo. The grass plain of some four miles separated them from the village. At a nod from Dig, Piro and Sookee set off at a fast trot.

The boys followed them, taking long leaps through the air. Ten minutes later, they were creeping through the small grove of trees not far from the cave openings.

Just as they came out into the grassland again, Piro stopped them with a warning cry.

A milling crowd was gathered around the cave openings. Even as they looked, a flight of spears suddenly flew through the air and bounced on the rock around one of the cave openings.

Kia gave a frightened cry. “It is cave of Father Tokee!”

They needed no urging but broke into a run. They could hear hoarse shouts and the clash of spears as they hit the cliff.

From the cave opening, too, occasional spears shot out in answer to the attack. But it was evident that Tokee, outnumbered by his attackers, was trapped inside the cave.

Captain Allen could not be seen and Dig wondered at that. He knew that his father would never permit such a fight to break out over him. He would sacrifice himself first!

The attackers suddenly caught sight of them and separated into two groups. A small number continued to besiege the cave. The others came charging toward the boys.

They were now close enough to recognize Otaro in the lead.

“I’m going to try to stop this fight,” Dig said. “Piro will come with me as interpreter. The rest of you spread out behind me.”

They obeyed while Dig advanced to meet the Asterians.

“Tell them we do not want to fight,” Dig said to Piro. “We want to hold a council meeting. But I am not afraid. I have a mighty weapon.”

He stopped and waited while Piro shouted the message to the Asterians. Opening his holster, Dig took out the stun-ray gun.

Either the words, or Piro whom the Asterians recognized as one who had been condemned and thrown down the shaft, impressed the attackers. They stopped the charge and waited.

Otaro, however, continued to advance. He raised his spear and shouted something which Piro quickly relayed to Dig.

“He say he put spear through you!”

“I hope he tries,” Dig said quietly. He set the stun-ray gun on a wide beam and waited.

Otaro suddenly lunged forward. His spear shot at Dig with the speed of a bullet.

But Dig was ready for it. He squeezed the trigger and the stun-ray waves hit the spear in mid-air. It shattered into a thousand pieces!

A gasp rose from the watching people. Many dropped their spears and fled to hide in their caves.

Otaro drew a knife from his belt, and with a cry of fury, charged at the boy.

Calmly, Dig adjusted the stun-ray gun to its weakest beam and waited for Otaro to come closer. Then, as Otaro was about to leap at him, Dig fired.

The blow from the stun-ray gun smashed at Otaro, lifted him off his feet and hurled him backward. He fell on his back and lay still.

The people stared at his body for a moment, then fumed and ran for their caves. It was the kind of magic they could not cope with. The battle was over.

“Otaro will be all right in a little while,” Dig said. “Piro, you and Sookee take care of him.”

While the two men carried Otaro away. Dig led the way to Tokee's cave.

“Tokee,” he called. “Tokee!”

In a moment, Tokee and Leea emerged. Behind them came several men and women. They stared, surprised to see their attackers gone.

With a cry of Joy, Kia and Kero dashed forward to embrace their parents. After greeting the children, Tokee and Leea came up to the boys and bowed their heads in silent thanks.

Piro came trotting up to them, a grin on his face.

“Otaro him all right. He be sick all over and hurt. But all right soon.”

“Piro, ask Tokee where Allenee is.”

But Tokee understood. He pointed to the cave and bowed his head.

“What's the matter?” asked Ken, sensing that something was wrong.

Tokee said nothing, continuing to point to the cave.

“He's in the cave!” Dig cried.

The three boys made a dash for it. Inside, Dig stopped with a strangled cry.

Boyd Allen lay still on a grass mat. His face was pale. There was a nasty gash on his forehead, and one side of his face was covered with blood!

22 The Forgotten Star

JIM PUSHED Dig aside and dropped to his knees beside the wounded man.

“Break out the medikit, Ken,” he said without looking up.

The younger boy opened his belt pouch and brought out a flat, plastic box. Jim took a pad of sterigauze and began to clean the wound on Captain Allen's forehead.

When he had finished. Ken handed him a tube of quick-healing myciopaste. Jim squeezed the medication over the cut.

“He'll be all right,” Jim said, getting up.

Dig crushed an energy capsule between his fingers and held it close so that his father could breathe in the reviving fumes.

Tokee, Piro and a group of friendly villagers crowded into the cave and watched silently.

“How did it happen?” Jim asked Piro.

“Tokee say Otaro give him bang with spear!”

Within a few minutes, the Space Explorer opened his eyes. He smiled when he saw his son leaning over him.

“Digby!”

“How are you. Dad?”

“Fine... I think.” The Space Explorer sat up and felt his forehead. “Fixed up neat and proper.”

“Dad, meet my spacemates,” Dig said proudly. “This is Jim Barry... and Ken Barry.”

“Glad to know you, boys,” Captain Allen greeted them, a warm smile on his lips. “How did you ever get here?”

“It's a long story, Dad.”

“Then let it wait for a while. You can tell me all about it later.”

He rose to his feet weakly. Seeing Piro standing quietly against the wall, he called him over. They held a whispered conversation.

“You know what to do. This is the time.”

Piro nodded, then called Tokee and the others to follow him outside.

"I met Piro and Sookee down on the lowest level of this asteroid," the explorer told them. "They were living with a group of exiles who had been driven out of here."

"We've been there, sir," Ken said. "And we saw those atomic engines."

Captain Allen chuckled. "So you saw them? Well, they're a lot more than engines. Those machines seem to break matter into basic energy bits, then put them together again in any combination you want."

"Like taking the atoms of rocks and turning them into oxygen... or hydrogen... or iron?"

"Yes, and into water and food. That's how this asteroid was hollowed out. The rock was changed into other elements."

Jim whistled in amazement. "How do the machines work?"

Captain Allen laughed and clapped the boy on the shoulder.

"I wish I knew. Perhaps some day Space Research will be able to tell us. But it'll take years of hard study."

Jim and Ken looked at each other.

"I'll bet Dad will move his whole staff here!"

"And instead of living on the Moon, we may live right here on Eros!" Jim cried enthusiastically.

"Well, this would be a good place to live!" Captain Allen chuckled. "Wouldn't mind settling here myself."

They went outside where Piro and Sookee were calling on the people to come out of their caves.

Kia was waiting for them. "Man come," she said and pointed toward the great grass plain.

Jim looked and burst into laughter.

"Is that a kangaroo from Earth? No, it's something in an orange-colored uniform! It's Sergeant Brool of the Space Guards!"

"Couldn't be," Dig chuckled. "He doesn't believe this place exists!"

In leaps and bounds that carried him high over the grassland, Sergeant Brool was rapidly approaching.

“By the marsh devils of Venus! By the red rust of Mars! It's true!” he shouted as he came up to them.

Then he saw Captain Allen and a grin exploded on his face.

“Boyd Allen! Alive and well!”

“And happy to be rescued at last!” the explorer said. “I'm glad the Space Guard didn't give up the search for me after all this time!”

“The Space Guard did give up, I'm sorry to admit. Your boy Dig didn't! He drove us like a spacefiend!”

The sergeant looked about curiously. He saw the caves and the Asterians gathering in a circle around Piro and Sookee.

“The village and the people! Well, Dig I've got to apologize.”

Captain Allen glanced at the gathering council.

“We'll leave them alone for a few days. They've got problems to solve, and I want them to do it without any interference from us. Suppose we go to my quarters.”

“You go away?” Kia asked, looking up at them timidly.

“Only for a little while,” Jim told her. “We'll be back.”

“Good!” She ran to join the people listening to Piro. Kero gave them a friendly grin, then dashed after his sister.

“Lets go!”

The Space Explorer set a fast pace across the grassland. Soon they had left the village and the Asterians far behind them. They stopped to gather up their spacesuits, then hurried on.

Captain Allen's Asterian quarters turned out to be the room with the telescope.

“This is the observatory,” he informed them. “From here we can see all space, far beyond our own Solar System. Don't ask me how this telescope works. I haven't the least idea, though I've spent months studying the equipment. And searching through the libraries.”

“Libraries, sir?” Ken asked.

“Yes, there are quite a few here. I learned the language first. From Kia, then Piro and Sookee. But it didn't help. The language they speak and the language on the recordings is different.”

“Then they are not the original makers of this asteroid?” asked Jim.

“Oh, they are. There's enough similarity in the two languages. But spoken languages change through the years. And that's what happened to these people.”

“Where did they come from? And how long have they been here?”

Captain Allen shook his head. “I studied their star charts for weeks. None is familiar. But I've been able to put together enough facts to guess at their story. This asteroid is a spaceship.”

“A spaceship?” asked Sergeant Brool. “Twenty miles long?”

“Yes. It travels along magnetic lines of force... perhaps along lines of light,” the Space Explorer told them. “The size doesn't matter. They don't need rockettubes to force them through space.”

“How fast can this asteroid... I mean spaceship... travel?”

“At least as fast as light, Ken.” The Space Explorer began to pace the floor. “This was once a natural asteroid which they hollowed out. They probably smoothed out the surface, too. It must have taken them years... generations of lives.”

He paused and switched on the telescope. Instantly the view of the Asteroid Belt appeared on the gigantic screen. Sergeant Brool gasped in astonishment.

“There are greater wonders here. Sergeant,” Boyd Allen said.

“But let me continue.” He switched off the telescope.

“They turned the asteroid into a spaceship and set off on a space voyage. Where they wanted to go, we may never find out. But it was to be a long trip, even at the speed of

light. And it fumed out to be longer than they had planned. Or perhaps something happened. A sickness that wiped out most of them... there's no way of knowing. At any rate, this spaceship drifted for countless thousands of years..." He shrugged helplessly and added, "Perhaps for millions of years!"

"But from where? Where did they come from?"

"Until we find out, if we ever do, we'll just have to say they came from the planetary system of some forgotten star... and accidentally drifted into our Solar System. Perhaps they came from a star at the other end of our galaxy... or even another galaxy," Captain Allen replied. "It could be any one of billions of stars... and they have long forgotten which one it is."

He finished his story, and for a long time the room was quiet. In the dim light, they watched the mysterious lights continue to flash on and off over the instruments.

After a while. Captain Allen broke the silence.

Suppose we go and have a bite to eat," he suggested. "I don't know about you, but I never did finish my dinner. Piro told me about the extra spacesuits he found and you boys, and I rushed off to look for you."

They went to the room where the boys had found the unfinished meal. Captain Allen swept the plates from the table. While they waited, he punched a series of black circles on the wall at the side of the room. Within minutes, a slot opened in the wall. He took out several steaming plates and brought them to the table.

"The machines below make this food from the sap of the trees. Until I learned how to work these black buttons, I had to live on mash." He chuckled. "Now I can have anything I want from meats to milk."

While they ate. Dig told his father their story from the very beginning. When he described how he had stowed away on the *S.S. Pioneer*, he was careful to explain that Jim and Ken were innocent of any wrongdoing.

"It was my fault," Dig confessed. "And the same thing with the *Viking*. Jim and Ken weren't to blame for any of it. I blasted off thinking they were still on Mars."

Finally, when Dig told his father about breaking the orders of the Space Guard, the explorer looked worried. As Dig finished his story, Captain Allen glanced at the Guardsman.

“Well, Sergeant?”

“It's out of my hands, Captain. The orders came from Space Guard headquarters and my warning to Dig was recorded.”

“What will happen to Dig?” Ken asked.

“He'll be banned from space flight for life. The punishment is automatic when a command of the Space Guard is disobeyed.”

“But Dig was right!” Jim pleaded. “If not for him, this asteroid might never have been found. Or Captain Allen rescued!”

“That will not make any difference,” the Guardsman said. “I'm sorry. But there's nothing I can do about it.”

“You did it for me, son,” the explorer said, looking at Dig.

“No, sir! He did it for me!” Ken insisted. “I'm to blame!”

“No, it was for me! He didn't want me to go looking for Ken alone!”

The Guardsman threw up his hands. “It makes no difference why he did it! He disobeyed an order from the Space Guards! There's just one punishment for that!”

“Well,” Captain Allen turned to Dig, who sat quietly, staring down at the table. “It won't be too bad, son. There are plenty of places to explore on Earth. We'll do it together.”

“What do you mean?” Dig looked up quickly.

“I'm going to quit the Space Explorers!”

“You can't do that. Dad! Exploring space... why, that's your whole life! And after discovering this asteroid the greatest feat of exploration ever made! You can't quit!”

“Let's not argue about it, Digby! I've made up my mind. We won't discuss it any further!”

The Space Explorer rose to his feet, a grim expression on his face, and stalked out of the room.

23 The Space Explorers

TWO DAYS later, the three boys were in the observatory watching the Patrol Cruiser Lancelot through the Asterian telescope.

The boys were alone. Captain Allen and the sergeant had gone on a visit to Taroo village to see what progress the Asterians were making under the guidance of Piro and Sookee.

The boys had been prowling through the many levels of the asteroid, exploring the maze of corridors and quiet passageways, and poking their heads into the thousands of rooms.

But as the day of their return to Earth came closer, the three friends became gloomy. They stopped exploring the asteroid and moped around silently.

“I wish we could talk this over with Dad,” Jim said, watching the Lancelot on the screen. “Dig, could you pick up the *Beagle*? She can't be too far behind.”

Dig shifted the scene on the wall. Within a minute he located the squat research ship not far from Mars.

“There she is,” he said, bringing her up large on the screen.

“But if you want to talk to Dr. Barry, why don't we go aboard the *Viking* and call him?”

“That's just what we'll do!” Jim cried, jumping to his feet.

It was the first bit of enthusiasm he had displayed in a long time. Ken quickly seconded the motion and Dig agreed to go with them.

They shut off the telescope and hurried to get into their spacesuits. Movement through the asteroid was easy because of the light gravity. In twenty minutes, they were going up the airlock to the surface.

Once outside, Dig stopped to look at the distant stars. The boys waited for him quietly, but Dig noticed their impatience.

“Come on,” Dig suddenly snapped at them. “What are we standing around gaping for?”

He stalked toward the *Viking* angrily. Inside the airlock, Dig waited for the atmosphere to reach normal pressure. He took off his spacehelmet and shuffled through the inner hatch.

“You go ahead and make your call. I've got a couple of things to do,” he threw over his shoulder and walked away.

“I guess I'd feel the same way if I knew I could never go into space again,” Ken said, looking after his friend.

“I know,” Jim agreed.

They set their oxytanks to be recharged, then hurried forward to the control cabin.

Jim switched on the spaceiver and began to call the *Beagle*.

“Explorer Ship *Viking* calling Research Ship *Beagle*! *Viking* to *Beagle*! Come in, please!”

Presently there was a crackle of static on the speaker. A voice acknowledged their call.

“*Beagle* to *Viking*... in contact. Please proceed.”

Jim focused the spaceiver carefully. The face of the *Beagle*'s pilot appeared. He took one look at the boys, then shouted over his shoulder.

“Get Dr. Barry here! Fast.” He turned and smiled at Jim.

“Your father will be here in a minute.”

“Thanks. It sure is going to be good seeing him.”

“Say, is everything we've been hearing about that asteroid true? Is it really hollow?”

“It's true,” Jim told the man. “And there are people living here. People from somewhere in outer space!”

“Well, you three boys are about the most famous boys in the Solar System. Or don't you know that?”

“We're famous?” Ken leaned over Jim's shoulder. “What for?”

“Discovering the asteroid!” the pilot replied.

“It was Captain Allen who discovered it. And Dig Allen.

We just went along for the ride.”

“Well, that was quite a ride!”

The pilot looked up, then moved out of his seat. Keith Barry slipped into the pilot's place and looked at the screen.

“Hello, boys,” he said, quietly. But there was a proud sparkle in his eyes. “I see you're all right.”

“We're fine. Dad. How's mother?”

“She worried a bit at first. She's fine now.”

“Dad, we've got a problem,” Ken said.

“Tell me.”

“Dig Allen is going to be grounded for life,” Jim said. Before he knew it, he was telling his father everything.

The scientist listened without interrupting, and when Jim had finished, he shook his head thoughtfully.

“I won't allow Captain Allen to resign from the Space Explorer Corps,” he said quietly.

“But he won't change his mind. Dad. He won't even discuss it.”

“There's another way, Jim. Get Dig and go back. Tell Captain Allen that if, in his opinion, Code Seven applies to this situation, he may use it and I will approve it.”

“What's Code Seven?” asked Ken.

“Captain Allen will understand. Now get Dig and go!”

“Yes, sir.” Jim was about to break the connection when Keith Barry stopped him.

“And if you boys decide that you would like to have the Code apply to you, too, you have my permission.”

“But we don't even know what it is, Dad!”

“You'll know. Now get going. And I'll see you boys in a few days.”

Keith Barry smiled and cut the connection.

“What do you make of it?” Jim asked turning to his brother.

“I don't know,” Ken replied. “But Dad usually knows

what he's doing. Come on.”

They found Dig checking their oxytanks when they came down.

“We're going back,” Jim told his friend.

They adjusted the oxytanks and left the ship. On the way, they told Dig about Keith Barry's instructions.

“Code Seven allows a Space Explorer to swear men into the Corps provided they are essential to the success of his mission,” Dig told the boys. “And those sworn in are full Space Explorers, with all the privileges and responsibilities.”

They found Captain Allen and Sergeant Brool in the observatory when they returned.

“Well, boys, did you go aboard the *Viking*?” Sergeant Brool asked, trying to be cheerful.

“We called father,” Jim told him. Then he turned to Captain Allen. “We told him that you were resigning, sir.”

The Space Explorer sighed. “Well, he had to know some time.”

“But he said you were to use Code Seven, sir. He said he wouldn't permit you to resign.”

“Code Seven?”

“Yes, sir. We told him Dig was going to be grounded and then he told us about Code Seven.”

“I see,” said Captain Allen. There was a smile on his face. “I think I understand.”

“Glad you do,” Sergeant Brool broke in. “I don't.”

“Why he wants me to swear Dig into the Space Explorer Corps. I suppose as a reward for what he did.”

“Well, the boy deserves it,” the Guardsman agreed. “It's a shame, grounding him!”

“Would you have any objections to my swearing him in?”

“None whatever,” the Guardsman said. “I will be glad to endorse it. Proud to, Captain.”

The Space Explorer switched on the telescope. He

manipulated the controls until a breath-taking view of the entire Solar System appeared on the gigantic screen.

“That will make a perfect background for the swearing-in ceremony,” Captain Allen said.

“What's the use, Dad? What good is it to become a Space Explorer only to be retired to Earth before I have a chance to go on a single expedition?”

“Well, it's better to retire as a Space Explorer than as just another spaceman,” Captain Allen replied. “I'd be proud to have you in the Corps, Dig. But you must make up your own mind.”

“All right, Dad. I'd like to join the Space Explorers!”

“Captain Allen, father said it could be applied to Ken and me, too. That is, if you thought we deserved it and we wanted to join.”

“And do you?”

“Yes, sir, I do!” Jim cried impetuously.

“How about you, Ken?” the explorer asked the younger boy.

“Yes, sir. Me, too!”

“Then, by the power vested in me, I will proceed to swear all three of you into the Space Explorer Corps. James Barry?”

“Yes, sir!”

“Stand at attention. Kenneth Barry?”

“Yes, sir!”

“Stand at attention. Digby Allen?”

“Yes, sir!”

“Stand at attention!”

While the three boys stood rigidly at attention. Sergeant Brool walked over to stand beside the Space Explorer.

“Sergeant Brool, Space Guards, will you bear witness?”

“I will, sir.”

“Do you have any objections to the enlistment of these men in the Space Explorer Corps? If so, state your objections now.”

“No objections, sir.”

“As a witness, do you agree that my expedition to the asteroid Eros, No. 433, would have ended in disaster if not for the aid given by these men?”

“I do, sir.”

Captain Allen turned and looked at the three boys standing before him. He was silent for a long, thoughtful moment, then he raised his right hand.

“Raise your hand and repeat after me.”

The three boys raised their right hands.

“I do solemnly pledge to devote my life to the growth of knowledge throughout the Solar System, and beyond to the farthest stars, so that all life may enjoy the benefits of peace, plenty and freedom.”

Solemnly the three boys repeated the oath of the Space Explorers.

“You are now members of the Space Explorer Corps,” Captain Allen announced.

“Congratulations!” Sergeant Brool said as he stepped up to the boys and shook their hands. “Reminds me of the day I took my oath as a Space Guard....”

“This is the first time three Space Explorers have been sworn in at the same time,” Captain Allen said with a smile.

“I only wish we could set another first,” Ken said. “Three Space Explorers working together as a team!”

Dig threw a grateful look at his friend.

“There's nothing to stop you from doing just that,” Captain Allen announced quietly.

“But Dig is going to be...” Jim started to say. Captain Allen stopped him.

“You must learn the Code of the Space Explorer, Jim,” he said. “To be banned from space flight Dig must first be court-martialed. But a Space Explorer cannot be court-martialed! Nor can anyone give orders to a Space Explorer!”

“By the rings of Saturn!” Sergeant Brool cried. “Keith Barry has tricked me! And so did you, Boyd!”

Though the Guardsman's voice was stern, there was a big smile on his face.

Boyd Allen slapped the sergeant on the back and burst out laughing.

“You old spacefox! Pretending you were taken in!”

In an instant all of them were laughing and shaking hands with each other. Sergeant Brool was the happiest of all.

Except for Jim, Ken and Dig, that is!

THE END.