#### TOM SWIFT AND THE ASTEROID PIRATES

## VICTOR APPLETON II

No. 21 in the Tom Swift Jr. series.

(1963)

## From the front:

A violent explosion in space touches off one of the most thrill-packed adventures in Tom Swift Jr.'s scientific career. The appalling news that a cargo rocket has disintegrated while en route with vital supplies to Swift Enterprises' research base on the asteroid, Nestria, sounds a grim warning that the lives of Nestria's personnel are at stake.

To rescue the marooned men, Tom undertakes a hazardous voyage to Nestria, only to find the way blocked by an invisible barrier of deadly radiation created by an unknown enemy whose objective is possession of the base.

Tension mounts at Swift Enterprises when a mysterious Oriental is shot while attempting to warn Tom that his life is in danger from the Black Cobra. The Oriental's mumbled warning, plus some revealing data collected by United States Intelligence, sends Tom winging to a secret fortress in South America for the first encounter with his inscrutable foe.

But the decisive encounter is destined to take place in space. How Tom uses his new invention, the magnetic deflector, to crack the radiation barrier around Nestria, and how the young space scientist and his crewmen pit their wits and courage against the asteroid pirates and their diabolical leader, the Black Cobra, will hold every reader breathless with suspense.

The Tom Swift Jr. series:

- 1 Tom Swift and his Flying Lab (1954)
- 2 Tom Swift and his Jetmarine (1954)

- 3 Tom Swift and his Rocket Ship (1954)
- 4 Tom Swift and his Giant Robot (1954)
- 5 Tom Swift and his Atomic Earth Blaster (1954)
- 6 Tom Swift and his Outpost in Space (1955)
- 7 Tom Swift and his Diving Seacopter (1956)
- 8 Tom Swift in the Caves of Nuclear Fire (1956)
- 9 Tom Swift on the Phantom Satellite (1956)
- Tom Swift and his Ultrasonic Cycloplane (1957)
- 11 Tom Swift and his Deep-Sea Hydrodome (1958)
- 12 Tom Swift in the Race to the Moon (1958)
- 13 Tom Swift and his Space Solartron (1958)
- 14 Tom Swift and his Electronic Retroscope (1959)
- 15 Tom Swift and his Spectromarine Selector (1960)
- 16 Tom Swift and the Cosmic Astronauts (1960)
- 17 Tom Swift and the Visitor from Planet X (1961)
- 18 Tom Swift and the Electronic Hydrolung (1961)
- 19 Tom Swift and his Triphibian Atomicar (1962)
- Tom Swift and his Megascope Space Prober (1962)
- Tom Swift and the Asteroid Pirates (1963)
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- 30 Tom Swift and his G-Force Inverter (1968)
- Tom Swift and his Dyna-4 Capsule (1969)
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- 33 Tom Swift and the Galaxy Ghosts (1971)

# THE NEW TOM SWIFT JR. ADVENTURES ILLUSTRATED BY CHARLES BREY

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# **CHAPTER I**

## **EXPLOSION IN SPACE**

"Outpost to Sky Queen. . . . Looks as if the storm on Venus is getting worse!"

The message came crackling through the predawn darkness to Tom Swift Jr. aboard his Flying Lab as it cruised in the upper atmosphere.

"Can you make out any details through the space prober?" Tom radioed back.

"Not too clearly, skipper," the Swifts' space-station radioman responded. "The planet's cloud cover seems to be in a state of terrific upheaval."

Bud Barclay, copilot and close friend of Tom's, turned anxiously to the crew-cut blond youth at the controls. "Tom, does this mean our Venus probe will be scrubbed?"

The two eighteen-year-olds, both veteran astronauts, had been looking forward eagerly to piloting the

first interplanetary space flight.

"Could be." As he spoke, Tom's blue eyes ranged over the bank of special recording instruments in the cabin of the giant research plane. "If Dad's predictions are correct, the radiation may be too intense for us to risk it just now. Never mind. I have another trip in mind, pal."

Husky, dark-haired Bud flashed a hopeful look at his friend. "A space cruise?"

"No-and yes," Tom said. "I'm planning to set up a solar observatory on Nestria to try unraveling the mysteries of the sun's radiation and its effects on other bodies in the solar system."

The phantom satellite Nestria, sometimes called Little Luna, was a small asteroid which had been moved into orbit around the earth at an altitude of about fifty thousand miles. Tom had led a space expedition to claim the asteroid for the United States, and the Swifts had established a permanent base there with personnel to staff it.

Bud, excited over the new project, began peppering Tom with questions. But suddenly the copilot stiffened in his seat and pointed off to starboard.

"Jumpin' jets! What's that over there? A rainbow at night?"

A weird, filmy band of red, yellow, and green light was sweeping across the jet-black sky.

Tom's eyes, too, widened at the amazing spectacle. Then suddenly he chuckled. "Relax, pal. It's a natural phenomenon called airglow, caused by the reactions of oxygen and sodium in the upper atmosphere. This is the first time we've had a grandstand seat to the show."

"Whew!" Bud settled back in relief. "For a minute I thought I was going loopy from break-off!"

Though neither Tom nor Bud had ever succumbed to "break-off," both boys knew about the giddy feeling of detachment from the earth sometimes experienced by jet pilots when flying at high altitudes.

"Fat chance of that ever happening to an old space-hopper like you," Tom reassured his friend.

"Boy, I hope not! But getting back to business," Bud went on, "what's causing all this fuss on Venus?"

"A flare-up on the sun," Tom replied. "As you probably know, there's a regular solar wind of charged particles blowing outward from the sun at all times."

"I didn't, but go on."

Tom grinned. "Well, every so often the sun shoots out an especially hot gust of those particles or plasma, as the stuff is called. Dad's been making a spectroscopic study of Venus's atmosphere. He probably figured that conditions in the cloud cap were so unstable that the next gust of plasma might trigger a violent chemical reaction."

"And he called the shot just right, eh? Tough luck for us."

Tom nodded. "It's beginning to look that way."

Bud watched as Tom pressed a button to start taping the instrument readings. The Sky Queen's

equipment for the flight included a rubidium vapor magnetometer, radiation counters, stacks of nuclear emulsions, automatically operated cloud chambers, and various other atomic devices.

"That solar outburst must be having a real effect on the earth's ionosphere," Bud commented, scanning several of the instrument dials.

"Sure is," Tom agreed. "In fact, it throws the interplanetary magnetic fields way out of kilter. Right now the earth is getting showered with all sorts of-"

The young inventor broke off abruptly, a startled expression on his face.

"What's wrong?" Bud asked.

"Up there at eleven o'clock!" Tom gasped, pointing out the cabin window. "That burst of light!"

Bud's jaw dropped open in astonishment as he saw the phenomenon to which Tom was referring. A small starburst in the darkness at first, the patch of light was growing larger by the moment, and spreading out into a sizable glowing fireball.

"Good grief! What is it?" Bud murmured in awe. "A meteor?"

Tom shook his head. "If it were falling into the earth's atmosphere, it would show up as a streak of light." The young inventor hesitated.

"You know, Bud, if it didn't sound crazy, I'd say that was a nuclear explosion out in space!"

"A nuclear explosion!" Bud stared at his friend. "You mean, like a hydrogen bomb?"

"I don't know," Tom said with a baffled look. "But notice how the patch of light is spreading. That's exactly what would happen to an atomic fireball in a vacuum if it weren't held in by the counterpressure of the air."

Tom paused long enough to throw a glance at the bank of instruments, then gave a whistle.

"Man alive! We're getting some kind of radiation already!" the young inventor cried. "Look at those counters! They're going crazy! And so's the magnetometer!"

"Maybe the explosion, or whatever it is, was touched off by the solar outburst," Bud suggested. "Could those particles from the sun have triggered a reaction in a cloud of micrometeorites?"

"I doubt it," Tom replied. He snatched up the microphone and called the wheel-shaped satellite space station which the Swifts had constructed 22,300 miles above the earth. "Sky Queen to Outpost. . . . Are you watching that burst of light, Ken?"

The voice of Ken Horton, commander of the space outpost, reported:

"We sure are, Tom! The observatory crew up here is in a tailspin trying to figure out this thing. Any idea what's causing it?"

"I was hoping you fellows could tell me," Tom replied. "Signing off now, but give us a call the second you get any clues."

"Roger!"

Tom unbuckled his seat belt and stood up. "Take over, Bud," he said. "I'm going topside to the astrodome for a better look."

"Right, skipper!"

As Tom disappeared up the steel ladder leading to the navigator's astrodome, Bud banked the ship slightly to bring the mysterious patch of light into view dead ahead. It still seemed to be expanding, but more slowly now.

What had caused the explosion, Bud wondered—if it had been an explosion? It was certainly no official American nuclear test in space, he reflected, or the Swifts would have been notified. Even a foreign power probably would have issued some kind of warning to spacecraft. Bud racked his brain for an answer, but without success.

Presently he switched on the intercom to speak to Tom. "How about it, genius boy? Have you doped out an explanation yet?"

Bud paused, waiting for Tom to reply, but there was only silence. The copilot repeated his query. Again no response.

Suddenly Bud felt a chill of alarm. "Hey, Tom!" he called. "What's going on? Are you all right?"

Still the intercom remained silent.

"Good night! Something must have happened!" Bud worried. "Tom may be absent-minded at times, but he sure isn't deaf 1"

Bud set the ship on automatic pilot, unbuckled his seat belt, and hurried topside. Taking two steps at a time, he mounted the ladder into the astrodome-then stopped short in dismay.

Tom Swift lay crumpled on the deck, unconscious!

"Skipper!" Bud cried out. In an instant he was at his friend's side, bending over the motionless figure. He held his hand to Tom's chest and felt a regular heartbeat.

"Thank heavens!" the copilot muttered.

Bud dashed below to the Sky Queen's lounge and returned a moment later with a first-aid kit and a canteen of water. When he had revived Tom sufficiently, Bud let his friend sip some water. Soon the young inventor was able to talk.

"You really gave me a scare, pal," Bud told him. "What happened?"

"Search me. I seem to have conked myself," Tom said, feeling a bump on his head. "Oh-oh. I remember now. My eyes got dazzled, looking at that burst of light through binoculars. When I turned to go below, I couldn't see anything. Guess I tripped and made a real crash landing."

"Feel okay now?"

"Sure. Let's get back to the flight compartment."

On the way down, Tom admitted that he was still baffled by the strange phenomenon. As the boys strapped themselves into their flight seats, they noted that the patch of light was larger than ever, but its brilliance had faded considerably.

"Wonder if the outpost has anything new on it?" Bud murmured.

"Ken said he'd call, but let's try him again."

Tom picked up the microphone. Before he could signal the space station, a tense, excited voice came over the speaker. It was George Billing, radio chief of Enterprises, calling from the Swifts' rocket base on Fearing Island.

"Fearing to Tom! . . . Can you read me?"

"Loud and clear, George. What's up?"

"Bad news, skipper! You saw that burst of light in the sky? . . . Well, it must have been one of our unmanned cargo rockets carrying the monthly supplies to Nestria. Evidently it exploded!"

Tom and Bud were stunned. "You're sure it was the rocket, George?" Tom asked tersely.

"Positive, skipper. We were tracking it on radar. All of a sudden it disappeared-at the same time and in the same spot as that burst of light. It must have disintegrated."

"But what caused the explosion?" Bud asked.

"We don't know. It's a total mystery," Billing replied.

Tom's face was grim. "Okay. Stand by and keep us informed," he directed. "I'm taking the Queen back to Enterprises."

"Roger!"

Puzzled and worried, Tom banked the huge plane into a sweeping turn and began the steep descent back to the Swifts' vast experimental station near Shopton. "Thank goodness there was no crew aboard the lost rocket," he thought.

The Sky Queen set down by means of its jet lifters on the special runway and the boys climbed out. As they hurried on foot across the brightly lighted Enterprises airfield, a messenger on a motor scooter came speeding out from the control tower to intercept them.

"We just had a flash from Fearing, skipper," he told Tom. "Mr. Billing says they've lost all contact with Nestria! The men on the base don't respond to our calls 1"

## **CHAPTER II**

## A MYSTERIOUS GIFT

THE news sent a chill of foreboding through Tom and Bud. Had the personnel on Nestria also been destroyed in the explosion?

"This is awful, Tom!" Bud gulped. "You don't suppose those poor guys up on the base-"

"Don't say it!" Tom shuddered. "Let's see what we can find out through the space prober!"

With a quick thanks to the messenger, Tom dashed off with Bud at his heels. The two boys hopped into a jeep and sped across the grounds of Swift Enterprises.

The experimental station was a high-walled, four-mile-square enclosure, crisscrossed with airstrips and dotted with sparkling modern research laboratories, hangars, and workshops. Here Tom and his equally famous father, Tom Swift Sr., developed their many inventions.

In moments the jeep pulled up before the lighted main building, topped by a glass-domed astronomical observatory. Tom and Bud hurried inside, took the elevator to the top floor, then sprinted up the steel staircase leading into the dome.

Mr. Swift looked up as the boys arrived. He was talking on the telephone. "No, sir. As yet we have no clue to the cause, but we'll keep you informed. . . . Right! Good-by."

"More trouble, Dad?" Tom queried.

"The United States and Canada almost had a nuclear alert," Mr. Swift said wryly. Spare and athletic, with slightly graying hair, he looked almost like a brother of Tom Jr. Both had the same keen features and deep-set, steel-blue eyes.

"A nuclear alert!" Bud gasped. "On account of our rocket exploding?"

Mr. Swift nodded. "That was the North American Air Defense Command calling. The blast disrupted its detection and tracking system."

"Good night!" Tom exclaimed. "And Fearing has lost contact with the base on Nestria!"

Mr. Swift showed instant concern. "I've had no chance to try your space prober," he said.

Tom's megascope space prober was an amazing telescope of potentially infinite range. It employed radio signals rather than optical principles and produced on a viewing screen a close-up picture of the object being sighted. A duplicate model had been installed in Tom's repelatron spaceship, the Challenger. Later, another had been built for use at the Swifts' space station.

Tom quickly fed the asteroid's orbital data into the prober's tracking computer, then tuned the range control. The three waited anxiously for an image of Nestria to appear.

The viewing screen remained blank!

"What's wrong?" Bud asked as Tom adjusted the high-gain signal amplifier without result.

"Apparently the prober's signals aren't getting through." Tom's forehead wrinkled thoughtfully.

"That may be a good sign," Mr. Swift put in. "Perhaps our crewmen on Nestria are alive and well, but simply can't communicate with us."

"But what's blocking the signals?" Bud puzzled. "The fallout from the explosion?"

"Possibly. Or it might just be one of those freakish blackouts due to solar activity," Mr. Swift went on worriedly.

"What about the explosion itself?" Bud demanded suspiciously. "That's the biggest mystery of all!"

"You're right, Bud I' said Tom. "And here's another thought. The whole thing may be sabotage, and there's only one way to find the answer. I'm going to hop over to Fearing and take off for Nestria in the Challenger!"

The elder scientist laid a hand on Tom's arm. "Son, I know it's hard to stand by at a moment like this, but it might be wise to wait," he suggested. "So far we know nothing about the radiation hazards in the area-and there's always the chance the radio blackout may clear up."

Tom endeavored to control his anxiety. "I guess that's the sensible course," he admitted. "But I sure wish I could do something to find out about our men up there!" He strode toward the wall telephone. "One thing we can do is to get Harlan busy on the sabotage angle!"

Tom dialed the home number of Enterprises' security chief. In a second Harlan Ames's voice came over the line.

"Sorry to bust you out of the sack, Harlan."

"What's up, skipper?"

Tom gave Ames a quick fill-in, then said, "It's hard to believe a bomb could have been planted aboard the cargo rocket, but you'd better get some men over to Fearing and start a full investigation. Check for leaks at this end, too."

"I'm on my way!" Ames promised.

Trouble with spies, saboteurs, other enemies, and scientific rivals was nothing new to Tom Swift Jr. In his first adventure, related in Tom Swift and His Flying Lab, the young inventor had fought a gang of South American rebels bent on seizing a valuable radioactive-ore deposit. Later, Tom had been involved in hair-raising experiences in outer space, under the ocean, and at the South Pole. Only a short time earlier he had been the target of a scheming scientist who sought to steal the plans of his megascope space prober.

Dawn was breaking when Tom hung up the phone and turned to talk over the situation again with his father and Bud.

Mr. Swift said, "I'm due in Washington this morning for an urgent meeting of the National Research

Council. That means I won't be around to help cope with whatever comes up."

"Don't worry, Dad. You have enough to think about, riding herd on all our government projects," Tom said. "I can always reach you."

Soon Chow Winkler, the roly-poly, former chuck-wagon cook from Texas who was now the Swifts' chef at Enterprises, came clumping up with a breakfast tray. As usual, he was sporting a gaudy Western shirt, high-heeled boots, and a white chef's hat perched atop his balding head.

"Any news yet from them pore hombres up on Nestria?" the Texan inquired. Evidently word of the cargo-rocket explosion and the radio blackout had spread like wildfire.

"Not yet," Tom replied.

"We're thinking of borrowing one of your shirts for a space signal beacon," Bud remarked.

"Why, sure thing, if it'll do any-" Chow broke off with a snort as he realized he was being teased. "None o' yore funnin' now, Buddy boy!"

"Sorry, old-timer," Bud said contritely. "I was just trying to lighten the gloom a bit."

After a hasty breakfast, Mr. Swift hurried off to Washington. The boys waited anxiously in the observatory, with Tom making periodic efforts to sight Nestria through the space prober or contact the crew there. But the blackout continued.

"If only there were some way to contact them!" Tom muttered.

Suddenly a girl's voice asked, "Tom couldn't possibly be referring to us, could he?"

Tom and Bud whirled in surprise as two girls came up the stairway into the observatory. The one who had spoken was pretty, blond Sandra Swift, Tom's seventeen-year-old sister.

Sandy's companion, Phyllis Newton, giggled. "Since when did Tom and Bud ever worry about contacting a couple of mere girl friends?" Phyl, an attractive teen-ager with sparkling brown eyes and long, dark hair, was the daughter of Ned Newton, Tom Sr.'s old friend and associate.

"Hey! Look who's here!" Bud exclaimed. He and Sandy often double-dated with Tom and Phyl.

"And look what arrived in the mail this morning!" Sandy said proudly.

She held out her right wrist, displaying a silver link bracelet, decorated with a single, large sky-blue turquoise.

"You're getting extravagant, Sis." Tom chuckled. "When did you order that?"

"Order it?" Sandy tilted an eyebrow. "I'll have you know this was a gift from an admirer!" Reaching into her bag, she plucked out a card. The sender had printed on it by hand the message:

TO A BLUE-EYED LOVELY, THIS BLUE TURQUOISE BRACELET-WEAR IT ALWAYS

FOR GOOD LUCK! FROM HER GREATEST ADMIRER

"Now, I wonder who that could be?" said Phyl.

"Of course I'm only guessing," Sandy said, "but anyhow-" She took a quick step toward Bud and shyly kissed him on the cheek. "Thank you, Bud! It's perfectly lovely!"

"B-b-but wait a second!" Bud stammered in confusion. He gulped and reddened. "Well-er- Sandy-you see-I didn't send you that bracelet!"

"You didn't?" Sandy stared at him in surprise. Then a mischievous twinkle came into her eyes. "Hmm. In that case, let me see . . . Bill? . . . Doug? . . . Bob? . . ." She pretended to count on her fingers. "You really can't expect us girls to sit around waiting for you two spacemen to find time to take us out."

She began to hum a popular song while holding the bracelet up to the light to admire the color of the large turquoise. Bud was speechless with embarrassment.

Tom couldn't help grinning at Bud's discomfort. But suddenly he frowned as a thought struck him. He glanced at the card again, then asked Sandy, "Mind if I take a closer look at that bracelet?"

"Why? Don't you think it's real?" she said.

"Very much so. I'd just like to see how it's put together."

Sandy unfastened the clasp and handed the bracelet to her brother. Tom took it to a workbench near the wall and began prying at the setting.

"Please! Don't ruin it!" Sandy begged.

"Relax, Sis," Tom told her. "If I can't put this thing together again, I'll buy you a new one."

Presently the stone came out of its setting. Inside, to the utter surprise of Sandy, Bud, and Phyl, was a tiny but compact assembly of electronic transistor parts and wires.

"Jumpin" jets!" Bud exclaimed. "It was bugged!"

"Bugged?" Sandy repeated, mystified.

"Yes. Your bracelet was designed to pick up conversations," Tom explained. He examined the electronic assembly under a magnifying glass. "This is a microphone and radio transmitter."

Sandy asked a bit breathlessly, "But why? Was the bracelet sent to me as a trick?"

"I'm afraid so, Sis," Tom replied. "Probably by some competitor of Enterprises who thought he might learn valuable secrets by tuning in your conversations with Bud and me or Dad."

Sandy looked crestfallen, but Bud tactfully declared, "What a low-down trick! How long a range would it have, Tom?"

His friend shrugged. "This transmitter looks powerful. It might transmit up to ten miles."

The young inventor conjectured that the sender either had planned to shadow Sandy in order to listen in,

or had planted an amplifying relay transmitter between Enterprises and the Swifts' home.

"Mind if I turn this over to Security for further examination, Sis?" Tom asked.

"Keep it." Sandy sighed regretfully.

After the girls left, Tom phoned Security and asked Phil Radnor, Ames's assistant, to make a thorough investigation. Soon a security guard arrived to pick up the bracelet.

Meanwhile, the boys resumed their vigil for news from Nestria. At last Tom could stand the suspense no longer.

"Come on, Bud! Let's grab a jet for Fearing-"

He broke off as the phone rang. Tom snatched it up. The radio operator on duty at the communications center was calling urgently.

"Just had a short-wave police message, skipper, warning our plant security to be on the alert. Someone's coming to Enterprises to kill you!"

## **CHAPTER III**

## THE GATE-CRASHER

"TO KILL me!" Tom could hardly believe the message. "What's this all about, Sparks?"

"Frankly, I don't know," the operator replied. "The police dispatcher was in a hurry, so that's all we got. I suppose it might be some sort of crazy false alarm, but I hope you won't take any chances I"

"Okay, I'll pass the word to Ames and Radnor," Tom said. He added, "What's the latest from Billing? Any luck yet contacting Nestria?"

"None. The blackout's as solid as ever."

"Well, tell him to keep trying. I'm taking off for the asteroid as soon as I can get to Fearing."

Tom hung up, told Bud about the police warning, and telephoned word to the security department. Then he called the nearby State Police post and asked to be connected to its radio dispatcher.

"This is Tom Swift Jr. speaking," the young inventor said. "Can you tell me anything more about this alleged assassin who's coming to get me?"

"Sorry, no. I haven't received any further details myself," the dispatcher replied. "All I got was a quick flash from Captain Rock, telling me to contact your radio operator at once."

"Where's Captain Rock now?" Tom asked.

"He's evidently working on the case personally. The call came from his car," the dispatcher said. He broke off hastily to take an incoming message, then went on, "I know it's unpleasant, but if you'll stand by, I'll inform you at once of any further word. Several of our cars are on the road right now, searching for the suspect, so I may have something soon."

"Okay, thanks." Tom replaced the receiver and turned to Bud. "Probably the whole thing's a false alarm, as Sparks suggested," the young inventor remarked thoughtfully, "but I'd still like to know what it's all about."

"You and I both!" Bud declared.

An instant later the telephone rang again. Tom answered. Harlan Ames was calling to report on the measures he had taken in response to the police alert.

"I've doubled the guard at the main gate, skipper," Ames said, "and we're posting extra men all around the plant wall. I'm sure there's no danger of anyone's getting in, but why not stay put in the observatory for the time being-just to play it safe."

Tom agreed reluctantly, more curious than apprehensive.

"Guess we may as well try the prober again," he told Bud.

The two boys busied themselves once more at the console of the huge space telescope. Several minutes went by. Suddenly a loud crash resounded across the experimental station-followed instantly by the shrill ringing of an alarm bell.

"Roarin' rockets!" Bud blurted. "What's going on?"

Tom switched on the plant radarscope and watched as the scanner painted a blip of light near one edge of the screen. "Someone or something at the main gate!" the young inventor exclaimed.

Bud had already dashed out to the balcony which circled the dome. "Looks like an accident!" he cried.

Tom joined Bud for a hasty look. A car had apparently plowed into the entrance gate to Enterprises at top speed. Employees were running to the scene from all directions.

"Come on! Let's find out who it is!" Tom cried.

The boys dashed down the steel staircase from the dome, then took the elevator to the ground floor. Hurrying outside, they ran across the grounds toward the main gate.

"There's Harlan!" Bud exclaimed.

A jeep loaded with security men had just pulled to a stop near the gate. Harlan Ames, the slim, dark-haired security chief, leaped out with a warning look at Tom.

"Better stay back, skipper!" he called. "This may be the killer!"

"I doubt if he's in any shape to be dangerous now!" Tom replied.

The driver, visible through the shattered windshield of the car, lay slumped over the steering wheel. Blood streamed from a scalp wound.

"The gate's buckled and the crash wrecked the opening mechanism," said Phil Radnor, Ames's blond, chunky assistant. "We'll have to go out through the gatehouse."

By the time they reached the car, a high-powered blue coupe, the gate guards already were extricating the driver from the wreckage. To Tom's and Bud's surprise, he was a young Oriental.

Two carloads of state troopers, lead by Captain Rock, arrived just as Doc Simpson, Enterprises' young medic, began his examination of the victim.

"That's our man, all right," said Captain Rock after a quick look. The unconscious Oriental had been placed on a blanket on the ground. "How badly is he hurt?"

"Pretty seriously, I'm afraid," the doctor said. "He stopped a bullet and he may have a concussion." The medic pointed to a nasty-looking wound in the victim's left side.

Captain Rock nodded grimly. "We were told he's an escaped mental patient. The hospital guards who were chasing this fellow must have winged him."

A hasty check of the man's pockets produced no identification except a driver's license. It had been issued the year before in the name of "John Tsu" at a New York City address.

At that moment a screaming siren heralded the arrival of an ambulance. After a quick consultation with Doc Simpson, the intern and the ambulance driver transferred the young Oriental to a stretcher and he was whisked off to the Shopton Hospital. Radnor and a State Police sergeant rode along.

"You boys hit the road again and see if you can locate those guards," Captain Rock told one patrol-car crew. "I'll be here at Enterprises for a few minutes longer."

The tall, broad-shouldered captain accompanied Tom, Bud, and Ames to the security office. Here he gave them the full story of the threatened attack on Tom's life.

"It was a gas-station attendant who phoned in the first alarm," Captain Rock reported. "I took the call and decided to check it out myself, since you're a pretty important wheel in our national space effort, Tom."

"Thanks," Tom said with a slightly embarrassed grin. "How did the gas-station attendant know about the threat?"

"He said this Oriental fellow had stopped at his station to inquire the way to Enterprises," Rock replied. "The attendant thought something was wrong because the guy's manner seemed kind of wild and distraught. Then, a minute or so after he'd left, another car pulled in, with two men in it."

"The guards?" said Ames.

Captain Rock nodded. "They told the attendant they were pursuing an escaped mental patient -an Oriental with some kind of mad grudge against Tom Swift. They figured he was heading for Swift Enterprises to kill Tom. The attendant told them the way the Oriental had gone, and they took off. Soon

afterward, the attendant heard gunshots. That's when he called the State Police."

"The hospital guards were armed?" Tom asked in surprise.

"They probably got permission because of this emergency," said Captain Rock.

"What institution did he break out of?" Ames queried.

"I don't know yet. We've had no bulletin on the escape," Captain Rock said. "We'll find out when we locate the guards. The Oriental must have given them the slip on one of those dirt roads through the hills west of Highway Ten."

The telephone rang and Ames answered. He conversed for a moment, then said, "Okay. Hold it a second."

Glancing at Tom, Ames said, "It's Phil Radnor calling from the hospital, skipper. He says the guy has regained consciousness and is begging to see you."

"Tell him I'll be right over." Tom started up out of his chair.

"But I thought we were going to Fearing," Bud protested. "Besides, if the guy's just a loony-"

Tom shrugged. "If he was in an institution, it's strange the doctors didn't take away his driver's license. Of course some visitor may have sneaked it to him. Anyhow, I'm curious to hear what he has to say. It shouldn't take long."

"I'd better go over, too," Captain Rock said.

While the captain headed for the main gate, the two boys hurried to the parking lot and drove off in Bud's red convertible through the Swifts' private entrance to the plant. The shrill wail of the police siren preceded them into town. Meanwhile, Ames remained behind at Enterprises to supervise the sabotage investigation.

When Tom, Bud, and Captain Rock arrived at the Shopton Hospital, they were quickly ushered into the emergency room. An intern was bending over the injured man's bed, while Radnor and the police sergeant stood guard nearby.

"Is he still conscious?" Tom asked tensely.

The intern looked up. "Yes, but please keep your talk brief. This man is very ill."

The intern stood aside as Tom approached the bed. The Oriental's eyes flickered open weakly and focused on the young inventor bending over him.

"Y-you are Tom Swift?" He gasped, struggling for breath. The man appeared to be about twenty-five years old. He was slender, with black hair, a gaunt face, and jutting cheekbones.

"Yes," Tom said. "Did you want to tell me something?"

The victim's face contorted as if he were summoning his last ounce of strength to force out the words. "B-b-beware-the-Black Cobra!" His voice sank to a mumble and became unintelligible.

Tom bent closer as the Oriental raised himself slightly to try to finish his statement. All Tom could catch were the words:

"-is planning to lure Tom Swift to destruction!"

## **CHAPTER IV**

## A MESSAGE IN SPACE CODE

THE Oriental's voice trailed off and he fell back on the pillow.

The intern hastily examined him, then rang for the nurse. "Get the orderlies here at once and have the patient wheeled to the operating room!" he commanded.

Turning to Tom and the others, the intern said, "He's in a coma. Frankly, I don't think there's much chance of recovery, but we'll do everything possible."

"Thanks," Tom said. "Please see that he gets whatever may help-and send the bill to Swift Enterprises."

The others looked somewhat surprised as they accompanied Tom out of the room.

"What's the idea, skipper?" Radnor asked. "The guy comes to Enterprises to kill you, and you wind up paying his hospital bill!"

"How do we know he came to kill me? What he was saying didn't sound like it."

Radnor snorted. "You mean that stuff about the Black Cobra?"

Tom nodded. "And somebody or something planning to 'lure me to destruction.' "He turned to Captain Rock. "What's your opinion, Captain?"

The officer shrugged. "I'm inclined to agree with Radnor. Probably he was bent on killing you, Tom, as the guards said, but shock has sent his brain on another tangent."

"That's assuming his pursuers really are guards," Tom said.

Captain Rock flashed a shrewd glance at the young inventor. "You think they're phonies?"

"I don't know," Tom answered. "But if they are, Tsu's warning might be genuine."

The police officer considered a moment. "Sounds fantastic, Tom, but maybe you're right."

When the group emerged from the hospital, Captain Rock strode quickly to his car. "Any word yet on those guards?" he asked the driver.

"Not yet. Michaels just radioed in. Three cars are continuing to check every road in the area."

"Call the post," Captain Rock snapped. "Tell them to send out an all-points bulletin with a description of the car and the two men. Also, block all main roads and check with every mental hospital around here."

"Yes, sir! Right away!"

Meanwhile, Captain Rock detailed another man to relieve the sergeant inside the hospital. "Keep the patient under constant guard." He walked back to rejoin the boys and Radnor.

"If those so-called guards are phonies, we should soon find out," he told Tom.

"Thanks," Tom said. He climbed into the convertible with Bud and Radnor and the trio sped back to the plant.

When they reached Enterprises, Tom asked Bud to ready a jet for the flight to Fearing Island. "And phone the rocket base to prepare the Challenger for us."

Tom stopped off at the security office with Radnor to discuss the latest development with Ames. Like the others, Ames thought that the young Oriental was mentally disturbed.

"What about the 'Black Cobra'?" Tom asked. "Ever heard the name before?"

The security chief said, "No, but we'll follow up on it. That driver's license may be all we need to trace the fellow. I've contacted the New York police and the FBI."

Ames added that his investigation of the cargo-rocket explosion had uncovered no leads pointing to sabotage. Tom, somewhat reassured, jeeped to the main building and hurried to the observatory.

Here he made another attempt to obtain a close-up view of the base on Nestria through the space prober-again without success. Billing, too, reported no luck at making radio contact.

Before leaving Enterprises, Torn and Bud ate a hasty lunch of hot roast-beef sandwiches and lemonade, served by Chow. "Good!" said Tom.

"Boss, are you fixin' to fly up to Little Luna fer a look-see?" Chow asked eagerly.

Tom nodded. "Soon as I can get over to Fearing. I'm worried about our men up there."

"So'm I, Tom," Chow said. "Reckon you'd have room fer your space cook? Those pore hombres'll be needin' some special vittles."

"That's a good thought, old-timer," Tom agreed. "Sure, you can come along."

Minutes later, the three were streaking seaward in a jet from the Enterprises airfield. Fearing Island was a small, thumb-shaped patch of land lying not far off the Atlantic Coast. Once a barren waste of sand dunes and scrubgrass, the island had been converted by the Swifts into their top-secret rocket base. Fearing was now a government-restricted area, tightly guarded by drone planes and radar.

Tom radioed the tower for clearance, then landed. In the center of the island, they could see the

launching area, bristling with rockets and gantries. On the north and south shores lay the docks where fuel tankers, patrol speedboats, and undersea craft were berthed.

A jeep was waiting to rush the boys to the Challenger. Tom's amazing spaceship, which had already taken him to the moon, was unique in design. Its fuselage was a huge silver cube, circled by a gyroscope-like framework of rails. These rails were tracks on which dish-shaped repelatron radiators could be wheeled about to aim their repulsion rays in any direction. The rays provided the force to hurl the ship through space at terrific speeds.

Slim Davis, a veteran Swift test pilot and astronaut, was standing by with a three-man crew. They all boarded the ship through the hangar compartment, and the crew took the elevator to their stations. Tom took his place at the pilot's controls in the flight cabin and began warming up the repelatrons. After a quick instrument check-out with Bud and Slim, he radioed the launching blockhouse.

"All clear for take-off!" came the response.

Lights flashed on the element-selector panel overhead as Tom tuned the repelatrons to the proper frequency. Then, as the radiators swiveled to ground-thrust position, the cabin filled with a hum of power.

"Here we go!" Tom murmured. Gunning the repelatrons, he sent the Challenger zooming aloft.

There was no sudden shock of G-force since the repelatron drive provided a smooth, constant acceleration. Tom and his crew watched in tense silence as the sky outside the quartz-glass view panes darkened from blue to deep violet and then to velvety black.

Below, the earth was already assuming the appearance of a multicolored ball, overlaid by a haze of cloud banks. Stars became visible as diamond-bright points of light in the inky void.

Presently the space outpost appeared in the distance-a glittering twelve-spoked wheel, bristling with antennas and latticework telescopes. It seemed motionless, though it revolved in orbit.

"We're en route to Nestria," Tom signaled.

"Good luck!" came the radioed response.

"Brand my space biscuits," said Chow, after a while, "why don't we try callin' Little Luna?"

"Good idea," Tom agreed. "At this range, maybe we can get through."

Chow and the others waited nervously as Tom made several calls to the base. None brought a response. Then the young inventor tried to tune in a view through the ship's space prober while Bud took over the Challenger's controls. Again Tom's efforts drew a blank.

"We'll just have to sweat it out!" Bud gritted.

Suddenly a bell rang shrilly, startling everyone. All heads swung around.

"The space decoder!" Slim cried out. "A message is coming through from your space friends!"

Months before, a black meteorlike missile, etched with strange symbols, had plunged to earth at Swift Enterprises. Tom and his father had man- aged to decode the symbols and discovered they were a

message from another planet.

Other messages had been received by radio and put on an oscilloscope-type screen. The Swifts had replied, beaming out code signals over a powerful transmitter, and a friendship had developed with the unknown space creatures, who seemed to monitor the Swifts' activities closely. It was they who had moved the asteroid Nestria into orbit around the earth.

Later, Tom had invented a translating computer which automatically coded or decoded the outgoing or incoming space messages. The English translation was tapped out on a teletype keyboard and appeared on printed tape.

As Tom dashed to the machine, the strange code symbols were already flashing on the oscilloscope screen. Tom read the message aloud:

"Stop! Go into orbit at following point in space." The exact position was given in relative bearings from the earth, moon, and Nestria. "'Repeat, stop here! Power off! Then resume flight.'"

"What's it mean, boss?" Chow asked excitedly.

Tom studied the tape with a frown. "Just what it says, I guess," he replied thoughtfully.

"But how come?" asked Slim. "I mean, what's the reason for our stopping?"

"Let's ask them," Tom decided. He switched on the space transmitter and tapped out the query.

Several moments went by. Then the signal bell rang again. As weird symbols appeared on the scope, a red light flashed.

Slim groaned impatiently. "That means the machine can't translate, doesn't it?" he asked.

"Yes. Those are new symbols we've never received before," Tom said.

Knowing that it might take hours to unravel their meaning by mathematical analysis, the young inventor hastily beamed out another message:

NO TIME TO TRANSLATE. PLEASE REPEAT, USING OTHER SYMBOLS.

Presently the signal bell rang again. This time, the machine translated without difficulty:

DANGER. IMPORTANT YOU OBEY.

Anxious silence pervaded the flight compartment after Tom read the message aloud.

Then Bud burst out, "Don't do it, Tom! If an enemy caused that cargo-rocket explosion, this could be a trick-maybe to set us up for some kind of space ambush! What's really important is for us to reach Nestria!"

Tom made a quick decision. "I think the message was on the level," he told the others coolly. "We'll stop."

He took his place again at the controls. His eyes roved constantly from the space-position-finder screen

to a series of dials on another panel which showed the range and bearing of various bodies. Within minutes Nestria was visible dead ahead as a disk of light.

Tom swiveled the repelatron radiators to brake the ship's speed. Then, at the precise moment, he cut power to the repelatrons, coasting the Challenger into a steady orbital path which would carry it no closer to the asteroid.

Chow gulped nervously. "Now what?"

The young inventor shrugged. "Resume flight as they said." Outwardly calm, Tom was keyed to an intense pitch of alertness-all too aware that the lives of his crew were at stake.

Switching on power again, he beamed the repelatron radiators for a direct course to Nestria. But there was no answering acceleration! The Challenger failed to stir from orbit!

"It was an ambush!" Bud cried out. "We're trapped!"

#### CHAPTER V

## THE INVISIBLE BARRIER

WAS the Challenger about to be attacked?

Perspiration beaded Tom's forehead as he gunned the repelatrons to full power. Still there was no response from his ship!

"Brand my six-guns!" Chow gabbled. "If some polecat's fixin' to bushwhack us, he'll sure have a sittin' target!"

Tom stifled a feeling of panic, realizing that his crew's safety depended on his presence of mind. Then a thought struck him.

"The auxiliary rockets!" he muttered.

Since the repelatrons drew their power from solar conversion units, the ship had been provided with auxiliary rocket tubes for maneuvering in the earth's or the moon's umbra. Tom levered the tubes into retro-firing position and triggered a short blast.

Instantly the Challenger plunged from orbit! Bud and the others exclaimed in relief. Tom waited until they had lost a hundred miles or more of altitude, then tried the repelatrons. This time the ship responded smoothly!

"I don't get it," Slim gasped. "Now the repelatrons are working okay."

"I don't get it myself," Tom said with a frown. "Let's try another approach."

Conning the range dials closely, he steered the Challenger to the same orbital position as before and cut power. After a short pause he switched on the repelatrons.

Again, the Challenger failed to accelerate!

"What in tarnation's wrong?" Chow demanded nervously. "Is this here ship spooked?"

"It's sure acting that way," Tom agreed wryly.

Bud flashed a shamefaced grin. "Guess I was a bit spooked myself when I let out that yell about us being trapped," he confessed.

"Forget it. We all were," Tom said. "The question is, what do we do now?"

"Maybe we should back off for another approach," Slim Davis said, "and just plow right on through."

Tom nodded grimly. A new and terrifying idea had occurred to him. "We could try that if we want to disregard the message from the space people," he said. "But if we risk it, I have a hunch the whole ship might explode or disintegrate!"

"Disintegrate!" Bud exclaimed.

"Brand my sagebrush stew!" Chow's voice was shaky. "You mean we might go boom like that cargo rocket did?" His sun-bronzed face grew pale.

"That's exactly what I mean," Tom said. "If my hunch is right, the message from the space people is all that saved us!" He added, "Let's get out of here pronto and then I'll explain."

The young inventor fired a short blast on the auxiliary rockets to drop the Challenger out of orbit. Soon a hum of power announced that the repelatrons were operating again. Tom swiveled the radiators to brake the ship on its long, wheeling descent back to earth.

"This is only a theory," he said presently, "but I suspect that Nestria is now surrounded by some strange kind of electromagnetic field or radiation barrier. That could have neutralized our repelatron rays when we got close enough-and it could also account for the radio blackout."

"How?" asked Slim with a puzzled look.

"By acting as a reflector to radio waves," Tom explained. "In other words, signals from the base transmitter on Nestria are reflected back to Nestria, and signals from outside are reflected away."

"And if we'd plowed into that radiation barrier -whew, we would've been dead ducks!" Bud mopped his forehead, recalling the fiery explosion in space which he and Tom had witnessed that morning. "And to think I was begging you to go ahead!"

Then he added more thoughtfully, "Assuming your theory is right, genius boy, what caused this invisible barrier around Nestria?"

"Good question, Bud." Tom scowled as he stared out the view pane, watching the ball of earth grow larger as they hurtled downward. "I wish I knew the answer, but I don't."

"The solar flare-up!" Bud suggested hopefully. "Could that have triggered off some kind of radiation around Nestria-the same way it kicked up that storm on Venus?"

Tom shook his head. "I don't see how."

"Then it must be the work of an enemy!" said Slim.

"I admit that sounds farfetched, too," Tom said. "But we can't count out the possibility- especially in view of the warning I received today."

He repeated the Oriental's mumbled warning that someone was planning to "lure Tom Swift to destruction."

"Whoever caused the barrier," Tom went on, "may have figured I'd take off for Nestria to investigate the base's silence, and that my ship would meet the same fate as the cargo rocket."

Slim shuddered. "What a devilish scheme!"

"It would sure fit in," Bud mused. Suddenly he snapped his fingers. "And maybe the same enemy sent Sandy the bugged bracelet!"

Tom nodded. "Right. He may have counted on that to find out what action we planned to take."

The young inventor radioed a full report to Fearing, but the rest of the trip was spent mostly in grim silence. Two hours later the Challenger was biting into the earth's atmosphere, then racing around the globe like a spiraling meteor to set down finally at the rocket base.

Tom and Bud ate dinner in the crew's mess hall. Afterward, as they walked back to Tom's laboratory on the island, Bud remarked, "I can tell plenty is going on in that high-powered brain of yours, pal. Feel like talking about it?"

"Our first job is to find out the nature of the radiation barrier-if that's what is causing the trouble," Tom said thoughtfully.

"And how do we do that?" Bud asked.

"By sending up a probe missile. Once we have the data we need, I can start figuring out a way to crack the barrier."

When they arrived at Tom's laboratory, the young inventor set to work laying out the instrumentation of the probe. Some time later he was interrupted by a buzz on the intercom. It was Billing calling from base communications.

"We've just made contact with Nestria, skipper!" he reported excitedly.

Tom and Bud were thrilled by the news. They sped across the island by jeep and dashed into the communications office.

"Still getting through?" Tom cried.

Billing nodded. "Their signal's pretty weak, but we've amplified it enough to make out the message." He added into the microphone, "Here's Tom now."

Tom seized the mike. "What cooks up there?" he asked eagerly. "Are you fellows all right?"

"Sure thing, skipper," came the voice of the Nestria radioman. "We're getting water from our atmosphere-making machine, but we could use some food."

The explosion of the monthly supply rocket, the operator explained, had sent out a shower of radiation which contaminated all food on hand. The crew, warned by the base's alarm counter, had donned antiradiation suits, but had had no time to shield the supplies.

Tom, in turn, explained his theory about an invisible radiation barrier surrounding the asteroid. "Keep your chins up," he added. "I'll try to get a ship there with provisions as fast as possible-and bring you fellows safely back to earth."

Tom could hear a faint chorus of cheers and exclamations of relief from voices in the background. Evidently the entire crew of the base had gathered around the radio.

Tom and Bud chatted a while with the men, then hurried back toward the laboratory. The sight of the star-flecked night sky filled them with awe, and they thought of their friends marooned fifty thousand miles away in outer space.

"If the radiation barrier's still there, Tom, how come their signal got through?" Bud puzzled.

"My guess is that during the night hours the dark side of Nestria becomes a better reflector," Tom mused. "It probably reflects back more of the radiation, and actually forces the barrier outward. That would tend to make the barrier thinner and less opaque-like a stretched balloon -so it's easier for radio waves to penetrate."

As the jeep pulled up in front of the laboratory, Tom added, "Bud, if radio signals can get through in the darkness, maybe a supply rocket could get through, too, without being destroyed I"

"Hey, that's an idea! How soon can we try?"

"We'll launch two probes tonight, and try shooting a cargo rocket during the next dark period."

The base bristled with activity as preparations got under way. Near midnight Tom was summoned from the launching area by a phone call from Ames at Enterprises.

"Bad news, skipper," the security chief said. "It looks as though that Oriental's story about the Black Cobra is true!"

CHAPTER VI

**UNCANNY NOISES** 

TOM was alarmed but not surprised by the news. He had thought all along that the young Oriental was no escaped mental patient. "What did you find out, Harlan?" Tom asked.

"The fellow's name really is John Tsu," Ames reported. "He's a graduate engineering student from Hong Kong who entered this country on a British passport."

"What about the mental patient angle?" Tom queried.

"Phony. The FBI has checked every hospital and rest home within hundreds of miles of Shop-ton. There's no record of Tsu ever having been committed. But the final proof came from the Immigration Service."

"How so?"

"Just yesterday," Ames replied, "Tsu landed at Idlewild from some kind of engineering research trip to Argentina."

Tom whistled. "Then those fake guards must have been killers trying to keep him from contacting me!"

"I'd say there's no doubt about it, skipper," Ames agreed. "And the worst part is, they've disappeared without a trace. Either they got away before the roadblocks were set up, or else they're holed up right here in Shopton!"

Tom considered a moment, then asked, "How about the Black Cobra business?"

Ames said the FBI had cabled Scotland Yard and British Intelligence for a routine check on Tsu. They had also asked for any information or clues on the name "Black Cobra."

"British Intelligence," Ames went on, "replied that a mysterious figure by that name was implicated in several political plots and assassinations in the Far East. But his real identity is unknown and nothing has been heard of him for over a year."

"Wow! That sounds as though Tsu may be involved in something big!" Tom said.

"Right." Ames's voice was grim. "And if Tsu's warning is on the level, skipper, it may mean you've been marked as the Cobra's next victim!"

"Why do you suppose John Tsu didn't phone me to pass on the warning?" Tom mused. "Or call the police for that matter?"

Ames conjectured that the killers might have been lying in wait for Tsu from the moment he landed in New York, and that the young Oriental might have been dodging them and fleeing for his life ever since.

"Besides," the security chief added, "Tsu may have figured that a phone warning would be passed off as just a crank call. By seeing you in person, he hoped to convince you the danger was real and explain in more detail. Maybe he even hoped we'd hide him out, or help him give those gunmen the slip."

Tom agreed that this explanation sounded reasonable. "In fact, Tsu could be some kind of turncoat spy or foreign agent himself," the young inventor speculated. "That would be a good reason for avoiding the

police or other American authorities."

"I'll bet you've hit it!" Ames said.

"Better make sure the hospital's ringed with guards and all visitors are double-checked," Tom suggested.

"Captain Rock's already seen to that."

Before hanging up, Tom told the security chief his theory about an electromagnetic field or radiation barrier surrounding Nestria. When Ames reported that his men had uncovered no clues pointing to sabotage of the cargo rocket, Tom thought this fact tended to corroborate his hunch.

"Well, okay, Harlan," he ended half-jokingly, "if I'm marked as the next victim, I guess we'd better keep our eyes open for the Black Cobra!"

"Don't underrate the danger, Tom," Ames cautioned. "This could be deadly serious!"

Tom's face was thoughtful as he put down the telephone. A splashing noise caused him to look around. What he saw made Tom grin.

Chow Winkler was staring at him in bug-eyed alarm. The cook had brought in a pot of steaming cocoa and was pouring a mugful for Tom. But, upset by the conversation he had just heard, Chow had forgotten what he was doing-and the cocoa was overflowing the mug in a miniature flood!

"Hey! Watch it, pardner!" Tom exclaimed.

"Huh? Oops!" Chow gave a start as the hot cocoa spilled off the table and ran down his trousers. "Brand my soup ladle, I'm gettin' plumb careless!"

The portly Texan hastily mopped up the spilled cocoa, then turned back anxiously to Tom.

"What's this about someone connivin' to sick a cobra on you, boss?"

"Nothing to worry about, old-timer," Tom reassured Chow with a chuckle. "Reckon you've plugged plenty of sidewinders with your six-gun. I'll just holler for help if I spot him."

"Sure, jest you leave that snake to me," Chow said in a worried and fatherly tone.

Tom grinned and gave the cook a pat on the shoulder, then hurried back to the launching area.

Two missiles had been readied for blast-off. One had been heavily instrumented to record data on the nature of the radiation barrier. The other was a stripped-down rocket carrying nothing but fuel and a radio guidance system. With it, Tom intended to attempt to pierce the barrier.

The launching area blazed with floodlights. After a final check-out, Tom and Bud retired to the control blockhouse, where George Billing was standing by with the tracking crew.

"Clear the launch area!" Tom ordered over the public-address system. Then his voice began intoning the countdown.

"... X minus three ... X minus two ... X minus one ... Blast-off!"

Tom's finger stabbed the firing button of the instrumented probe missile. It lifted from its pad, belching smoke and flame, then speared upward into the darkness. The tracking crew followed the telemetered reports of its progress.

"Looks like a perfect launch, skipper," Billing announced presently.

Tom nodded. "Okay, let's get our other bird up there." Soon the second rocket was on its way skyward.

The pilot tape of the instrumented probe missile had been set for an orbit of Nestria at the same range at which the Challenger had halted its flight in response to the space people's message. The second missile would approach the asteroid -piercing the radiation barrier at the point where the cargo rocket had exploded. Each missile would be returned to earth, if possible.

The young inventor lingered at the tracking station until both missiles were nearing their destinations. Then he and Bud hopped into a jeep and drove to the airfield control tower, which contained a small but powerful optical telescope. Here, Bud watched as his friend focused and trained the scope to follow the second rocket's flight.

"See anything yet?"

"No." Tom glanced at his wristwatch. "It'll be about ten more minutes before it hits the barrier."

The boys waited. Finally a starburst of light flashed in the night sky.

"There it goes!" Bud cried out.

Tom studied the explosion intently through the telescope, using a filter to lessen the glare. The burst of light persisted for several moments, then began to fade.

With an air of excitement, Tom grabbed the telephone and called the blockhouse. "Still receiving signals, George?"

"Faintly," Billing replied. "The explosion knocked the stripped-down missile off course, but it seems to be responding okay. I think we can retrieve it."

The boys hurried back to the launch area. Another period of suspenseful waiting followed. At long last a whistling roar was heard and the island's drone planes guided the returning rocket in for a smooth landing under the floodlights. Seconds later, technicians were swarming out of the concrete blockhouses to inspect it. All wore green antiradiation suits in case the missile should prove to be radioactive.

"Man, it really took a beating!" Bud exclaimed.

"Yes, but the important thing is that it wasn't destroyed!" Tom said jubilantly. Although badly burned, the rocket was still intact and operational. "Bud, this bears out my theory that the radiation barrier becomes less intense at night. With luck, we may be able to shoot a supply rocket through!"

By this time, Bud was puffy-eyed and groggy from lack of sleep.

"Go hit the sack," Tom told him. "It's been a long, tough day, pal. You'll be out on your feet soon."

"Guess I could stand some shut-eye," Bud admitted. "What about you? Even geniuses need some sleep."

"I want a peek at this bird's guidance system first."

Bud jeeped off to the crew's barracks while Tom remained behind to supervise the dismantling of the test rocket for further examination.

A gray streak of dawn was showing in the eastern sky when the young inventor finally returned to his island laboratory. He planned to snatch a few hours' rest before analyzing the data which the instrumented probe missile would bring back later that morning.

A small, simply furnished sleeping apartment adjoined the laboratory. The room was dark as Tom entered. He yawned and groped for the wall switch. Suddenly a weird, humming noise came out of the darkness from somewhere near the floor!

Tom's scalp bristled at the uncanny sound. He froze with his hand still inches from the light switch-every sense alert.

The young inventor held his breath as his eyes strove to pierce the gloom. The humming sound grew louder. Then, suddenly, a figure stirred just ahead. The next instant came a bloodcurdling yell!

Tom acted with lightning speed. He hurled himself at the intruder in a flying tackle!

#### **CHAPTER VII**

## CHINATOWN SHADOW

WITH a grunt, the shadowy figure went down under Tom's attack, punching and kicking wildly. Tom gasped in surprise. The sheer bulk of his opponent was the only clue Tom needed to identify him.

"Chow!" the young inventor cried out. "B-b-brand my nightshirt, is that you, boss?" "It sure is. What are you doing here?" Tom scrambled to his feet and found the light switch. Then he burst out laughing at the sight that met his eyes. The paunchy Texan was sprawled on the floor, barefoot but otherwise fully clothed, and entangled in a mass of bedding that had been dragged off Tom's bunk in the struggle. "Sorry for laughing, old-timer, but you sure look disorganized!" Tom apologized.

He helped the cook to his feet, with Chow still panting for breath. Suddenly Tom again heard the peculiar humming sound that had startled him when he entered the room. He whirled to see what was causing it, then exclaimed in astonishment.

A small, grayish-brown, weasel-like animal was peering with glittering eyes from between the legs of a chair. Its back was humped like a spitting cat's and its fur was bristling angrily.

"A mongoose!" Tom exclaimed.

"Yup. That's what made me yell," Chow said. "You see, I was lyin' on your bunk, boss, catchin' forty winks till you come back. When I woke up, I put one foot down on the floor an' the blamed thing bit me on the toe!"

As he spoke, the Texan bent down grumpily to inspect his injury. The sudden movement evidently startled the mongoose. Like lightning, it darted out and nipped Chow on the foot again!

"Yeeeow!" The cook gave a shriek of pain, tried to yank his foot away, lost his balance, and ended by falling heavily to the floor again.

Tom was unable to keep a straight face as he helped the cook up again. "I know it's no laughing matter, Chow, but I just can't help it!"

Chow sank down on the bunk to nurse his wounded foot and his equally injured dignity. He scowled at the mongoose which had returned to cover.

"Hydrophobiated varmint!" he growled.

The mongoose glared back, a menacing glitter in its beady eyes. It still hummed with fury.

"Watch it, pardner!" Tom warned. "It might go for you again! Where'd this critter come from?"

"I brung it here myself," Chow confessed. "Figured it might make a right good watchdog."

"A watchdog?" Tom was baffled.

"Fer you, boss-to ferret out that there pizenous cobra you was tellin' me about."

Tom stifled another outburst of laughter when he saw the cook's earnest expression.

"That was thoughtful of you, Chow, but the 'Black Cobra' is a person. I shouldn't have joked about it when you asked me."

He related the information which Ames had received from British Intelligence. At first Chow looked embarrassed, but his good humor quickly returned.

"A mongoose would make a perfect protector if the Black Cobra was a snake," Tom said. "Over in India they're champ cobra-killers."

Chow nodded wisely. "Yes, sirree, that's just what Spike told me."

Spike, he explained, was an old sailor friend on one of the ocean-going tankers now docked at Fearing Island. Chow had dropped aboard for a chat and had told his friend about the deadly cobra which might attack his young boss. Spike had immediately offered to sell Chow his pet mongoose-acquired on a recent voyage to India -and Chow had jumped at the chance.

"Only twenty-five bucks it cost me," Chow said proudly. "I reckon it would've been worth its weight in gold if there'd been any pizen snakes here. Spike told me there ain't a pet store or livestock dealer in the

whole U.S.A. what keeps the critters."

"He's right, Chow," Tom agreed. "You can't buy a mongoose anywhere in the United States- for a very good reason. It's against the law to bring them into this country."

"What!" Chow leaped as if he had been stung. "You mean I'm breakin' the law by jest bringin' the critter ashore?"

"I'm afraid so, old-timer. You see, mongooses can become terrible pests if they get loose. They kill poultry and small game."

"Brand my six-guns! Jest wait'll I get my hands on that seagoin' swindler!" Chow was livid, partly with rage and partly from alarm. "Tom, could I be put in jail fer this?"

"Nobody's going to arrest you at the crack of dawn." Tom patted the cook's shoulder soothingly. "We'd better get rid of the mongoose later today. In the meantime, I'll drive you over to the infirmary to get those bites looked after."

After a few hours' sleep, Tom went to work in his laboratory to study the data recorded by the orbital probe missile. He looked up as a soft rap sounded on the door.

"Come in!"

"Are we disturbing the march of science?"

"Sandy! Phyl!" Tom exclaimed. He tossed aside his slide rule and jumped up to greet them. "What brings you girls to Fearing?"

"A message." Sandy, pert in an attractive tan spring suit, smiled at her brother. "I thought you might appreciate having it delivered in person."

Tom grinned. "Shoot," he said.

"Do you remember that young State Department diplomat I told you about meeting on a weekend cruise?" Sandy began.

Tom nodded. "His name's Derek Strawn, isn't it?"

"That's right. Well, he called last night from Washington and asked me to give you a confidential message."

"How come? I've never met him," Tom said.

"No, but he knows I'm your sister and he's heard about you." Sandy smiled. "After all, you are sort of famous, brother dear! Anyhow, he said a trusted friend suggested that you and your closest associate go to a place in New York City called the Trans-Pacific Import Company at two o'clock this afternoon. Here's the address."

Sandy opened her handbag and took out a slip of paper which she handed to Tom.

"Hmm. In Chinatown." Tom frowned as he read the street address. "This is a queer sort of invitation,

Sandy. Are you sure the whole thing's on the level?"

Sandy flashed a smug grin. "I thought you might ask me that, so I checked."

"How-if you don't mind my asking?"

"By calling Wes Norris." Norris, an FBI agent, was an old friend of the Swifts. "He not only confirmed that the call did come from Derek Strawn," Sandy went on, "but he also said that Derek is one of the brightest, most up-and-coming young men in the State Department. He's just back from a tour of duty in the Far East."

Tom was still inclined to be cautious. "If someone at this Trans-Pacific Import Company wants to see me, why not just call me direct?"

His sister shrugged, though she looked puzzled. "I honestly don't know, Tom. From what Derek said, I gathered that this 'trusted friend' might be someone who was-well, operating under cover."

Tom thought this over. "I guess that's possible," he said finally. "Perhaps someone Derek met in the Far East, who's friendly to our country, yet couldn't ask for an introduction to me through official channels. Okay, I'll go."

Tom picked up the phone and called Bud, who immediately hurried over from the launch area. Tom explained the message brought by Sandy.

"I'd say you're my 'closest associate,' fly-boy," Tom concluded. "Want to come along?"

"Sure thing," Bud said with a wink at the girls. "I wouldn't want someone slipping you a Chinese fortune cooky!"

The girls flew back to the mainland in Sandy's Pigeon Special, a small passenger plane manufactured by Swift Construction Company. Early that afternoon the boys took off for New York in a Whirling Duck. This was the nickname given to an amazing combination helicopter-jet plane which Tom had invented.

After landing at the Hudson River heliport, Tom and Bud took a taxi to downtown Manhattan. From time to time Tom glanced at the driver's rear-view mirror.

As they reached Chatham Square, he murmured to Bud, "Don't look now, but a taxi's been tailing us all the way from the heliport."

Bud watched. "I don't like this, Tom," he said uneasily. "Let's not take any chances."

Tom nodded. As their taxi braked at the next stop light, he hastily handed the driver a bill and said to Bud, "Okay, let's go!"

The boys leaped out, slammed the door, and darted off into the crowd of pedestrians. Bud flung a quick glance over his shoulder.

"You were right, Tom!" he muttered. "The guy in that cab's hopping out too!"

Tom turned long enough to glimpse a squat figure in a tan suit striding after them. The boys stepped up their pace. They wove through the stream of pedestrians for a few blocks, past shop-windows filled with

Chinese merchandise.

"He's still on our tail!" Bud reported.

"Turn at this corner!" Tom said. A moment later he pulled Bud into a darkened doorway.

Soon they saw their shadower hurry past. He was peering ahead with an anxious look. Bud heaved a sigh of relief. "Hurrah! We shook him!"

"Let's not stick around!" Tom advised.

The boys were now within walking distance of their destination and soon reached the address which Sandy had written down. A shiny, new-looking brass sign on the building door said:

## TRANS-PACIFIC IMPORT COMPANY

"I sure hope we're not walking into something!" Bud muttered.

The boys climbed an unlighted flight of stairs and came to another door, which was locked. Tom gave a rap. Almost instantly the door was opened by a young Oriental woman wearing a high-collared, long-skirted cheongsam of green silk.

"Yes, please?"

"I'm Tom Swift," said the young inventor. "I was asked to come here."

"Ah, yes. Please be seated."

The room was scantily furnished with only a desk and a few chairs. As the boys sat down, the young woman disappeared through another door. A moment later she emerged and held the door open.

"Please go in." A polite smile showed briefly on her doll-like face.

Tom and Bud entered the adjoining room and the door closed behind them. They found themselves in a room lighted only by a single, rose-shaded lamp. It cast a dim glow over a small bronze statue of Buddha on a desk.

An elderly Oriental with a thin, drooping white mustache stood up and bowed to Tom. "Very pleased to see you, my dear Mr. Swift."

Tom introduced Bud, then said, "I'm eager to learn why you sent for me, Mr.-?"

A telephone buzzed softly and the elderly man picked it up. He listened, said something in a singsong foreign tongue, then turned to Tom with a smile.

"You appear to have given our man the slip. His mission was only to guard you. In reply to your question, please accept these."

He handed each of the boys a small crystal cube. Tom and Bud examined them and gasped. Embedded in each was a tiny carven black cobra, coiled to strike!

#### CHAPTER VIII

#### MISSILE BREAKTHROUGH

TOM'S pulse quickened. What was the meaning of the cobra image? Had he and Bud walked straight into the enemy's clutches?

The boys' faces must have shown their suspicions, for the old man hastily reassured them. "The name 'Black Cobra' is not unknown to you, I see. But do not be alarmed. These two talismans were obtained at great risk, and it is our hope that they may serve to protect you, should you ever fall into the power of enemy agents. Carry them at all times!"

"Our hope?" Tom repeated the words question-ingly. "Does this mean that you belong to some organization, sir?"

Their host pretended not to have heard. He went on smoothly, "You are wondering, perhaps, why it was necessary to come here? Why could the cubes not have been sent to you?"

"Now that you mention it, why?" Bud asked.

The Oriental smiled. "There is an old proverb: Only Buddha knows if arrow will reach mark. It was most important that these small talismans reach Tom Swift and his friend safely. Certain people might wish otherwise. So it seemed wisest to hand them to you in person."

Tom nodded. "I see. Is it permitted to ask just who you are?" he inquired bluntly.

"Your humble friend and servant." The old man bowed, then straightened and pressed a wall button.

The young woman in green reappeared so promptly that Tom suspected she had been standing on the other side of the door. The elderly Oriental spoke to her in the same singsong language, then turned back to the boys.

Again he bowed. "Most pleasurable to have met you both. My secretary will show you out."

Moments later, the boys were back on the street. "What do you make of it, Tom?" Bud asked.

The young inventor shrugged thoughtfully. "At least we know our shadow was friendly-if we can trust what the old man said." Suddenly, as he glanced around, Tom's expression changed. "Bud, look! It's gone!"

"What's gone?"

"That sign!"

The brass plate on the door, bearing the name trans-pacific import company, had been removed!

Bud gaped in astonishment. "Good night! The setup must have been phony."

"Maybe phony isn't quite the word, Bud." Tom's face took on a wry grin. "Let's say it was arranged for our benefit."

"We hope!" Bud retorted, and hailed a taxi. As soon as they reached the heliport, Tom hurried to the nearest telephone booth and consulted a Manhattan directory.

No such firm as the Trans-Pacific Import Company was listed!

"I'd say phony was exactly the word!" Bud muttered.

Tom's brow wrinkled, and he examined his crystal cobra cube. "Personally, Bud," he said, "I think someone's gone to a lot of trouble to help us. The import company was a blind for our rendezvous-and now that our unknown friends have handed over these cubes, they're making sure no clues are left behind for the enemy."

The boys flew back to Fearing Island. From his laboratory at the rocket base, Tom phoned a full report of the episode to Harlan Ames.

"You're sure those cubes aren't bugged like Sandy's bracelet was?" Ames asked suspiciously.

"No, I even X-rayed them," Tom reported, "and they're just what they seem to be. My hunch is, the cubes are a sort of secret emblem to identify members of the Black Cobra's organization."

"And what about that Trans-Pacific setup?"

"Better check it out, but you probably won't learn much," Tom said. "The man and the woman might belong to some secret society that's fighting the Black Cobra-so they're trying to hurt him by helping us. John Tsu may belong to the same outfit."

"Sounds reasonable," Ames agreed. Before hanging up, he added that Tsu was still in a coma. The doctors doubted that he would recover.

Tom spent the waning hours of the day supervising the preparation of the cargo rocket which he hoped to crash through the radiation barrier to Nestria. The rocket was to be shielded with a heavy coating of Tomasite, laminated with asbestalon. The former was a remarkable plastic developed by Mr. Swift, more impervious to gamma rays than lead. Asbestalon was a heat-insulating material which Tom had devised for his atomic earth blaster.

After a late supper, Tom bunked down in the room adjoining his laboratory and fell asleep instantly. Bud came to rouse him at 11:30 p.m. and the boys jeeped to the launching area under a cloudy sky almost devoid of stars.

"Think there's much chance of the supply rocket getting through?" Bud asked.

"A good chance, I hope," Tom replied. "It depends partly on whether the radiation becomes any more intense beyond the point reached by our test missile last night."

The sleek cargo rocket stood poised on its pad in a glare of floodlights. Both boys shivered in the chill

night breeze blowing off the ocean as they headed for the control blockhouse.

Billing greeted them with the news that radio contact had again been made with the base on Nestria. "Pretty well proves your theory, skipper, that signals get through only during the base's hours of darkness. We lost contact about an hour before their dawn."

Tom was heartened by Billing's report. Twenty minutes later the cargo rocket blasted off. Then came a tense period of waiting while it streaked through space toward the asteroid. Tom, watching through the control-tower telescope, observed the brilliant flash as the rocket pierced the radiation barrier.

"Looks like a hotter explosion than last night's," Bud commented.

Tom nodded worriedly. "The rocket must have hit an area of more intense radiation than our test shot reached last night. Let's hope the extra shielding can take it."

The boys drove to the communications office to await word of the results from the base crew on Nestria. When it came, the news was bad.

"No luck, skipper," Lee Jarrild, the crew chief reported. His voice, coming faintly over the speaker, sounded somber. "The rocket landed- or what was left of it-but it burned to a frazzle."

"Supplies too, I suppose?"

"All destroyed."

Tom bit his lip. "Lee, this is a tough break, but tell your gang not to give up. We'll lick this problem yet."

"We know you will, skipper." Jarrild added with a wry chuckle, "But make it soon, please. Our stomachs are wrapped around our backbones."

Almost sick with worry, Tom flew back to Enterprises with Bud at daybreak. Mr. Swift had returned the previous evening from his meeting with the National Research Council, and Tom was eager to discuss the situation with him.

The two inventors conferred in the spacious double office which they shared in the Enterprises main building. Morning sunlight slanting in through the blinds highlighted their huge twin desks and the scale models of their many inventions.

Those on Tom's desk included a likeness of the three-decker Flying Lab, a sleek model of his jet-marine tooled in blue plastic, and a red-finned, silver replica of the Star Spear, the rocket in which he and Bud had first orbited the earth.

After bringing his father up to date, Tom explained the startling conclusion he had reached after his study of the probe-missile data. "Dad, I'm convinced that this radiation barrier around Nestria is composed of some kind of antimatter particles."

"Antimatter particles!" Mr. Swift's eyes blazed with interest. "Sounds incredible!"

"I know," Tom said doggedly. "But it's the only form of energy I can think of which would produce such an intense reaction. Even with all that shielding of Tomasite and asbestalon, the cargo rocket was almost consumed. And the reaction seems to take place instantaneously when a missile pierces the barrier."

The Swifts had had an earlier adventure involving antimatter when Tom investigated the caves of nuclear fire in Africa. He knew that particles of antimatter, meeting corresponding particles of matter, annihilate each other because of the difference in electrical charges.

Mr. Swift rose from his desk and strode back and forth excitedly.

"Son, this could be a potential danger to earth itself," he remarked. "Are you suggesting that the barrier of antimatter particles around Nestria was created by an enemy?"

Tom shrugged. "I can't think of any natural explanation. Can you, Dad?"

The elder Swift shook his head slowly. "I must admit I can't."

Tom speculated that the particles could have been spread by an enemy spaceship orbiting Nestria.

"You realize, of course," Mr. Swift pointed out, "that the asteroid's field of gravity would tend to attract antimatter particles. So there must be a counterforce holding the particles in place."

Tom nodded. "It's only a hunch, Dad, but the enemy ship could have planted some sort of control device on Nestria to provide such a force."

"In other words, a deliberate and hostile attempt to cut off the asteroid from all outside contact!" Mr. Swift's face was grim as he digested the thought. "Tom, this makes it more urgent than ever that we find some way to cope with the situation!"

"I agree. Here's what I have in mind."

Taking paper and pencil, Tom began sketching plans for a new invention that had occurred to him on the flight back from Fearing. This device, mounted on a spacecraft, would shoot out an intensely concentrated magnetic field-thus repelling the particles and clearing a safe path through the barrier for a landing on Nestria.

"Hmm. An excellent plan," Mr. Swift remarked as he studied the sketch. "The pulse timing will be critical, of course. It will have to depend on the density of the antimatter particles."

"Right, Dad," Tom agreed. "The density could be determined by a sampling machine, and the information fed to a computer which would determine the right frequency."

The senior scientist gave his approval and clapped his son on the back. "Tom, I believe you have the answer here. How soon can you get busy on a working model?"

"I'm heading for the lab right now!"

Tom worked frantically throughout the day and well into the night. He snatched a few hours of sleep in the apartment adjoining his laboratory. Then, after a breakfast of Texas flapjacks and sausages wheeled in by Chow, he plunged back to work.

A short time later Tom was interrupted by a telephone call from his father. "Son, I've just had an urgent message from the Central Intelligence Agency," Mr. Swift reported. "They want us to fly to Washington at once on a top-secret matter affecting national security 1"

#### CHAPTER IX

### **DISTURBING REPORTS**

"ANY idea what the top-secret matter is all about, Dad?" Tom asked.

"Not a clue, except that it must be highly important. A meeting has been set for eleven o'clock this morning. Can you break off what you're doing?"

"Sure thing."

In twenty minutes Tom met his father on the Enterprises airfield. A sleek Swift jet plane was standing by on the runway. Mr. Swift, an experienced pilot who had given Tom his flying lessons, took the controls for the southbound flight.

Presently the tower radioed clearance for takeoff. The jet roared down the white airstrip and zoomed aloft.

At the Washington airport an official limousine was waiting to rush the Swifts to CIA Headquarters. Here they were greeted by John Thurston, a quiet, balding official of the agency whose mild manner masked a quick mind. Tom had worked with him on an earlier case when the United States was threatened by a series of mysterious earthquakes.

"Good to see you both again," Thurston greeted them warmly.

"Trouble?" Tom inquired tersely.

"We're not sure." Thurston took them to a small conference room, where several other officials were gathered. Two of them were Central Intelligence Agency experts and another was Dr. Leo Palfrey from the National Research Council. Also present was Bernt Ahlgren of the Defense Department's Advanced Research Projects Agency and an old friend of the Swifts.

Thurston took a few moments to explain to Tom and his father the reason for the meeting. "As you probably know, the CIA keeps tabs on what various eminent scientists all over the world are doing."

The Swifts nodded.

"Recently we've had an odd series of secret reports," Thurston went on, "about a number of top scientists and technical experts-from a dozen or more different countries-all going to Argentina. Supposedly they left their former posts for reasons of health, or were simply traveling as tourists. But none has been heard from since"

Tom and his father were startled.

"You mean they've disappeared?" Tom asked.

"You can put it that way," Thurston went on. "Not one of them has been officially labeled as missing, but their whereabouts are a total mystery. Once they land in Buenos Aires, they seem to vanish from circulation. We know they're not staying at any of the usual hotels or visiting any of the universities or research institutes. In fact, our undercover investigation has run up against a complete blank wall."

The Swifts exchanged puzzled looks. "That is strange," Mr. Swift murmured thoughtfully. "I know of no scientific meeting going on down there at this time."

"No, we've checked that angle," Dr. Palfrey stated. "There's none in session."

"Could the men have been engaged for some secret project by the Argentine government?" Tom asked.

"The answer is no," said a CIA man. "We've checked out all sources and we're sure the government doesn't come into the picture. It looks as though Argentina is being used merely as a gathering point."

"What it boils down to is this," Thurston told the Swifts. "Something important may be going on -perhaps a secret project, as Tom suggests. But what sort of project? And for whom? Will it affect United States security? In any event, we don't want this country caught flat-footed!"

Mr. Swift frowned. "Just who are these unofficially missing men?"

Thurston glanced at Bernt Ahlgren. The Defense Department expert pushed a leather-bound, loose-leaf volume toward the Swifts.

"Dr. Palfrey and I have collected all the information available on the scientists in question," he explained. "I suggest you look over the data and give us your comments."

Tom and his father began leafing through the volume with interest. It contained photographs of all the vanished scientists, with dossiers on their backgrounds.

"Say, Dad!" Tom exclaimed, pointing to one of the photos. "Isn't that the fellow who kicked up such a row at the International Magnetohydrodynamics Seminar in Baltimore?"

Mr. Swift nodded. "Yes. Fernand Zerbski. Carried a big chip on his shoulder. Accused those two atomic physicists from Los Alamos of cribbing his work for their research paper. A most unfortunate attitude for a scientist!"

Moments later, Mr. Swift turned to a photograph of a thin-faced, swarthy man with a high, bulging forehead. "This is Achmet Rahj!" he murmured.

"He was mixed up in some stock swindle with a Middle East oil company, wasn't he?" Tom asked his father.

"Yes. A brilliant rocket-fuel chemist, but rather a warped character, I'm afraid. Evidently he was more interested in money than science."

Many of the others also were known to the Swifts by name or reputation. Both Tom Sr. and Tom Jr. had met several of them at scientific gatherings. Some, like Achmet Rahj, had become involved in scandal which had cut short their professional careers.

"Quite an interesting assortment of scientific brains, eh?" Ahlgren commented when the Swifts finished looking at the book. "As you've noticed, a good many of them are temperamental and eccentric types."

"With a definite anti-American bias-at least in several cases," Mr. Swift added.

"That's true," Dr. Palfrey agreed thoughtfully. "Since you mention it, I can see how most of them were either totalitarian-minded to begin with, or might have acquired a grudge against this country."

"Like Achmet Rahj," Mr. Swift pointed out. "It was American investigators who exposed his stock swindle."

Thurston and the other CIA men seemed highly disturbed by this line of thought.

Tom Jr. spoke up quietly, "What strikes me about these men is that they're just the sort who might have been called together for a space project."

"A space project?" Thurston shot a sharp glance at the young inventor. "How so, Tom?"

"Look at the fields they specialize in-plasma physics, nuclear power, communications and telemetry, structural engineering, astrophysics." Tom ticked them off on his fingers. "With a group like that on the job, someone could really shoot for the stars."

Tom's words startled the others. But they could see the logic of his argument.

"What kind of a space project? Any idea?" Thurston asked. "A moon shot, maybe?"

Tom shook his head. "No, I have a different hunch-though I sure hope it's wrong." The young inventor paused worriedly. "It happens I know another engineer, who just came back from a trip to Argentina."

Tom told them about John Tsu and his strange warning, which seemed to tie in with the deadly radiation barrier surrounding Nestria.

"Great Scott!" Bernt Ahlgren exploded. "Then you think this business in Argentina could be a hostile project aimed at the base on Nestria?"

"The Argentine angle may be merely a coincidence," Tom admitted cautiously.

"Quite a coincidence, I'd say!" exclaimed one of the CIA men.

Thurston was seriously alarmed. "It certainly adds up. Nestria would be an invaluable base in any future space war," he pointed out.

"And give the possessor a big lead in the space race," added Dr. Palfrey.

The group plunged into an earnest discussion of ways to cope with the challenge. The government officials were heartened when Tom explained the new invention on which he was working. They urged him to make every effort to break through the radiation barrier around the satellite.

"This is vital for national security, and I'm confident you can count on government financial support," Thurston promised the Swifts. "Both NASA and the Defense Department can provide funds that are

already allocated for missile work."

The meeting finally broke up and the Swifts were driven back to the airport. Tom Sr. had decided they would go straight to Fearing Island to supervise their next missile launching. Tom would then continue on home to resume work with his invention.

The weather report was that the coastal area was blanketed with heavy fog, so Tom prepared for an instrument landing. As they approached the island, he switched on the radio.

"Fearing Approach Control. This is Swift Flight Nine," Tom said. "Approximately thirty miles south. Estimate Fearing at two-two. Over."

The base tower responded, "Roger. Understand. Would you like a radar steer?"

"Affirmative."

Thick gray mist billowed around the plane as Tom prepared to land.

"Turn to heading of zero-four-zero," the tower called.

Tom complied, turning in for final approach. Suddenly the tower operator's voice broke in:

"Check your ILS indications! Our scope shows you to be below glide path and left of the localizer!"

Tom scanned his instrument landing system indicator and the altimeter. Puzzled, he started to reply, "I'm showing the proper indica-"

The words died in his throat as a rocket gantry loomed out of the fog, almost dead ahead.

"Pull up, Tom!" cried Mr. Swift.

Tom barely had time to react. The next instant the plane rocked from a stunning impact as its right landing gear clipped the gantry!

"Our instruments are off!" Tom thought in horror.

The plane was a thousand feet lower than he had realized! It was about to plow into the ground!

### CHAPTER X

## FLYING SILVERWARE

TOM had already slammed the throttle to full power. But the jolt of the collision with the gantry had swung the nose of the plane sharply to starboard, dropping the right wing. Tom fought to correct this as he eased back on the control wheel, applying left aileron at the same time.

The Swifts held their breaths for a terrifying moment, then relaxed as they felt the ship climbing out with a surge of power.

"Son, that was superb flying!"

"What happened, Flight Nine? Are you having difficulty?" the tower radioed.

Gaining altitude, Tom replied coolly, "Executing a missed approach. Will proceed to alternate airport."

The young inventor now headed for Enterprises, since good visibility had been reported over the mainland, and within minutes the jet was streaking out of the fog area. As they neared Shopton, Tom radioed the experimental station's airfield. He described the collision at Fearing and asked permission to make a low pass over the tower.

"My landing gear may be in bad shape," Tom added. "I'd like you to take a look."

Permission was granted and the jet whined in across the field.

"Your right wheel's gone," the tower reported. "Can you retract?"

Tom flipped a switch. But the green light on the control panel remained on, indicating that the landing gear was still extended.

"No soap," he replied. "The relay must be jammed." Tom glanced at his fuel gauge. "Probably take me an hour or so to burn up this excess fuel before we try for a landing."

"Roger. Start circling and I'll alert the crash and rescue crews."

Tom's conversation with the tower gave no hint of the danger ahead. The shearing-off of the right wheel meant the main landing-gear brakes would be useless!

As the jet circled the Enterprises field, the fuel-gauge needle crept slowly toward Empty. Tom could feel his stomach muscles tightening. At last he glanced toward Tom Sr. "All set, Dad?"

"Any time, son."

The sight of his father's calm face helped to steel Tom's nerves. He picked up the microphone. "Okay, I'm coming in."

"Roger! And good luck, skipper!"

Tom banked into position and brought the jet swooping down at an approach speed slightly faster than normal. There was a scarcely perceptible jar as the lone main wheel touched down- then they were screaming along the runway. Beads of perspiration stood out on Tom's forehead.

"The trickiest part's still ahead!" he thought. Tom could feel the lessening of control as the jet lost speed. The right wing was drooping now. Tom fought to hold it up for precious moments longer. Suddenly the wing scraped the ground and the plane ground-looped sharply to the right. At the same moment, Tom's foot slammed hard on the nose-wheel brake. With a screech the craft skidded to a shuddering halt-still intact!

Tom and his father exchanged pale grins, then a fervent handclasp. Both felt limp and shaken. Crash trucks and an ambulance were already racing to the spot, trailed by a running throng of Enterprises employees. Cheers went up as they saw the Swifts emerge from the jet.

Tom accepted the crowd's acclaim with a quiet smile. But as soon as possible he broke away and hurried off with his father to their office in the main building.

Here Tom placed a call to CIA Headquarters in Washington and told John Thurston about their accident. "A radioman's checking out the instruments now. I suspect our ILS and altimeter were sabotaged," Tom said. "It could have been done while we were at the meeting."

"We'll soon find out at this end," Thurston promised grimly.

Famished, the two inventors are a midafternoon snack of ham-and-cheese sandwiches. The telephone rang. Thurston was calling.

"You were right, Tom," he said. "Those instruments didn't conk out by themselves."

An official-looking limousine, Thurston related, had shown up at the Washington airport after the Swifts had driven off to the meeting. The driver claimed that Tom had mislaid an important envelope and thought he had left it aboard his plane. Since the man had flashed an identification badge, the airport personnel had allowed him free access to the jet.

"The fellow probably had ample time to tinker with the instruments," Thurston ended angrily. "I promise you, we'll turn Washington upside down to lay hands on that character!"

Mr. Swift left for Fearing Island to speed the preparation of a new supply rocket for Nestria. Tom jeeped to his glass-walled laboratory and resumed work on his barrier-piercing device.

Art Wiltessa, a young engineer, dropped in about an hour later. "The sheathing's all ready, skipper," he reported.

Tom looked up blankly from the curious device which he was assembling on a workbench. "Sheathing?"

Art grinned. "Bet your brain's a thousand miles away, dreaming up some new gimmick! I came to report about the radar-blinding gear."

"Oh, that." Tom chuckled a bit sheepishly. "It did kind of slip my mind, Art. Is it all set?"

"Ready for a tryout any time. We can turn out the plastic sheathing with the transducer units in any quantity. And I had two sets of control units made up, just in case."

The equipment to which Art Wiltessa referred was an adaptation of an antidetection system which Tom had invented for Swift undersea craft. It enabled a submarine to evade detection by enemy sonar. Pulses striking one side of the hull were absorbed and transmitted at the opposite side, in such a way that no pings or reflections were returned to the sender. The new equipment used the same principle to blind enemy radar.

Tom's eyes kindled as a new thought struck him. Perhaps the sheathing would be useful protection against his unknown enemies when he was ready to try landing the Challenger itself on Nestria.

"Art, we'll run a test on it tomorrow," Tom decided. "Have a set trucked over to the Shopton airfield and install it on Sandy's Pigeon Special."

"Righto."

Tom called his sister and asked if she would pilot the plane for a radar test the following afternoon.

"Sure," Sandy replied. "Sounds like fun!"

It was eleven o'clock when Tom finally quit work and undressed for a well-earned sleep in the apartment next to the laboratory. Several hours later his telephone rang.

Mr. Swift was calling. "Sorry to wake you, son, but you asked me to let you know right away about tonight's cargo-rocket shot."

"Yes, Dad." The young inventor was instantly alert. "How did you make out? Any luck?"

"None, I'm sorry to say. The rocket was even more heavily insulated than the first," Mr. Swift said, "but it was burned out just as badly by the time it hit the asteroid. Frankly, I suspect that no amount of antiradiation shielding will solve the problem."

Tom agreed gloomily. "But let's keep trying until my magnetic deflector is ready."

"I agree, son. Good-by now."

The sky was already light with daybreak and Tom's mind was seething with too many thoughts for him to go back to sleep. So he dressed, pulled on his loafers, and went into the laboratory.

Shortly after nine o'clock Chow brought in breakfast. Tom ate, but hardly paused in his work. At noontime Chow passed the open door of the laboratory again, wheeling a cart with silverware through the outside corridor. He stopped short with a gasp of terror as knives, forks, and spoons suddenly rose from the cart and flew into the laboratory!

"Great balls o' fire! What's happenin'?"

A moment later the cook's eyes grew even wider as the stream of silverware came arcing back through the air and landed neatly in the cart again! Next thing he knew, the flying silverware was shooting back and forth at a dizzying speed, like a shuttling rocket train!

"Brand my comet cookies, I must be goin' plumb loco!" Chow moaned.

"Okay! You can relax now, old-timer!" Tom called between gusts of laughter.

"Boss, was I seein' things or did them knives an" forks go into orbit?" Chow pleaded.

"You saw it, all right. That was just a demonstration of magnetism," Tom explained, "but it was pulsing in pretty powerful jolts."

"I sure agree to that!" the cook declared.

Now that the flurry had subsided, he stared at the strange-looking device on Tom's workbench. It appeared to be a heavy metal figure eight, with the top loop of the eight twisted at right angles to the bottom loop. A wire-wound rod protruded through the two loops. This assembly was connected by two heavily insulated tubes to a large, boxlike console.

"What in tarnation do you call that thingama-bob?" Chow said, venturing in to examine it.

"A magnetic deflector," Tom said. "I'm hoping it'll crack the radiation barrier around Nestria. This is just a pilot model, of course."

As always, the loyal cowpoke was eager to hear more of his young boss's latest invention.

Tom explained that the figure eight contained an inner core of a special alloy, partly Lunite from Nestria. This was designed to carry a heavy flow of current in a bath of liquid helium.

"The helium chills the alloy so cold that it has no electrical resistance," Tom went on. "Once a current starts flowing through, it just keeps going with no further electrical input."

The current flow, he said, sets up an intense magnetic field in and around the probe output tube. This was the rod piercing the figure eight.

"Each time a voltage pulse is applied to the probe, it pushes that magnetic field right out of the rod-shoots it out, you might say."

"Like squirtin' toothpaste out of a tube?"

"Right. And that's what repels the antimatter particles to clear a safe path for the spaceship." Tom's eyes glinted. "In effect, it'll punch a hole right through the radiation barrier-at least that's what I'm hoping."

Chow goggled admiringly. "Sounds like just the ticket, boss!"

The inventor's next job would be to build a full-scale model of the deflector. Before tackling this, Tom was eager to test the radar-blinding sheathing. He checked with Art Wiltessa, then called Sandy.

"Ready and waiting, sir," his sister said with a giggle. "I'm taking Phyl with me. We'll be at the airport in twenty minutes."

In a few minutes Tom went to the communications office. Bud, Art, and Hank Sterling arrived soon afterward to observe the test. Hank, hard-driving but quiet-spoken, was chief engineer of Swift Enterprises.

The other three stood by while Tom contacted Sandy by radio over a special frequency. "Tom to Pigeon Special. Can you read me?"

"Loud and clear, brother dear."

"Take your ship up and keep the equipment switched off till we get a radar fix."

"Aye, aye, sir!"

Presently Sandy reported that she was circling the field. Tom instructed her to switch on the antiradar gear and fly a secret course while Enterprises' search radar attempted to locate her plane. A moment later the blip disappeared from the scope.

Sandy and Phyl were delighted to learn by radio that the radar-blinding sheath appeared to be working perfectly.

"What fun!" Phyl joked. "At last we have them chasing us-even if it's only on radar!"

The two girls had brought a hot picnic snack.

"Let's let them wonder for a while," Sandy said mischievously, switching off the radio. "We won't even tell them we're landing for lunch."

Sandy set the small plane down neatly in a level field fringed with woods. As they opened their picnic hamper, the girls noticed another plane drawing steadily closer in the sky. Moments later, they were startled as it swooped down and landed near the Pigeon Special.

Two men climbed out and strode toward Sandy and Phyl. One, heavily built with close-cropped, gray hair, held a gun. He aimed it menacingly at the girls.

### **CHAPTER XI**

**SKY-DROP** 

"HOW convenient that your plane cannot be detected on radar, Miss Swift!" The man's voice was guttural and faintly accented. "Your brother has no idea that you have landed here. Nor will he be able to track the ship when we take off."

Sandy and Phyl exchanged quick, fearful glances. "Th-they must have been listening in on our radio conversation!" Phyl murmured in a frightened voice.

"You're right," the gunman sneered. Suddenly Sandy noticed the pilot-a woman, attractive but hard-faced-watching from the cabin doorway of the enemy craft.

"Just who are you?" Sandy demanded of the man.

"My gun is all the answer you need. Tie their hands, Nick!"

Instinctively the girls clutched each other and drew back. But the gunman's partner grabbed them roughly by the wrists and jerked them around.

"No funny stuff!" he snarled. "Just stay put."

He was a tall man, lean and muscular, with a face scarred as if from an accident. Realizing it was useless

to resist, the girls allowed their hands to be tied. Then they were marched to the enemy plane and herded aboard.

"Follow us, but not too closely," the gunman told his partner. "And keep your eyes open for any sign of pursuit." He added with a slight jerk of his head toward the woman pilot, "Your wife can handle the ship in an emergency?"

The man called Nick laughed harshly. "Frieda can do anything with this crate but climb trees 1"

"Good!"

The gunman got aboard and latched the cabin door. Nick strode off toward the Pigeon Special. Soon the craft bearing the captive girls was airborne, heading on a northwesterly course.

Sandy's blue eyes sparked with anger and self-reproach at the way she and Phyl had been trapped and taken prisoner. "If only I'd told Tom we were landing-and where!" she thought.

To help herself keep calm, Sandy watched the terrain below. She kept a lookout for landmarks, hoping to memorize their course. The plane was flying over rugged, wooded country now, with few glimpses of towns or highways.

Presently the craft swooped down toward a blue lake in a narrow, sparsely timbered valley. A crude airstrip had been bulldozed along the rocky shore. As the pilot brought the plane down, Sandy saw a weather-beaten shack nearby.

"Our rented hideout," the heavy-set man said. "Pretty nice, eh?" He scanned the sky as they climbed out. "Ah! Here comes Nick now," he muttered with a look of nervous relief.

The Pigeon Special landed smoothly on the cramped airstrip. Nick came striding up to join them. "Okay, what's the next move?" he asked.

The other man gestured toward the cabin. "You and Frieda take the girls inside while I inspect the antiradar gear. We don't want to be caught with this stolen plane. It will have to be left here or destroyed, so I'd better make complete notes and drawings."

As the woman pilot grabbed Sandy's arm to urge the prisoners toward the shack, the girl wrenched free. She turned toward the leader of the trio.

"What do you intend doing with us?" she demanded. "In case you haven't heard, kidnapping is a serious offense in this country!"

Sandy half hoped the remark might trick the leader into betraying his nationality.

But the gunman merely smiled. "It will do no harm to tell you this much, Miss Swift," he said. "Your brother was to be killed. That seemed the best way to deal with such a dangerous obstacle to our plans. But now-"

"What plans?" Sandy broke in.

"The Swifts will learn in due time. Meanwhile, you two will be taken some place out of the country and held as hostages until your brother will cooperate."

Phyl's brown eyes kindled with alarm. "What do you mean?" she spoke up.

"Tom Swift possesses many valuable scientific secrets. He could be highly useful to us alive- if he can be induced to work with us," the gunman explained. "I suspect he will be more than willing to give himself up and assist our project to ensure your safe release."

"You're wrong!" Sandy blazed.

The shack stood about fifty yards off, surrounded by trees and underbrush. Sandy and Phyl were prodded toward it, angry and silent. The woman opened the door and they were shoved inside.

The building consisted of a single room, furnished with a battered table, chairs, an oil lamp, a rusty stove, and two cots.

Nick jerked his thumb toward the chairs. "You two can sit there," he said, slouching into a chair himself. His wife lighted the charcoal stove and began brewing a pot of coffee. An hour passed. Finally the gray-haired man entered the cabin.

"It's done. I have all the data on the antiradar gear," he announced. "We'd better clear out fast."

Sandy whispered a few words of reassurance to Phyl as the girls were pushed out the door. But she herself was near despair. Where were they being taken? And how could they possibly hope for rescue, since Tom lacked any clue to their whereabouts!

A moment later, from behind them, came a sudden gasp, sounds of a scuffle, and the sharp crack of a fist! Sandy whirled to see what was happening, then let out a glad cry.

"Tom!" she exclaimed.

The girls could hardly believe their eyes. The two boys must have sprung from cover and attacked the kidnappers as they left the cabin! Tom had grabbed the heavy man's wrist and was levering his arm back to force him to drop his gun. Bud was trading blows with Nick.

Frieda darted to aid her husband. Sandy, extending her left foot, tripped the woman neatly and she went sprawling among the weeds.

"You little brat!" Frieda's face flamed red with anger.

Struggling to her feet, she lunged at Sandy. Phyl promptly repeated her friend's tactic and the woman went down again. At that same moment Bud sent her husband reeling from a stiff upper-cut.

Tom, meanwhile, was driving savage punches to his opponent's midriff. Painfully winded, the gray-haired man sagged against the wall of the cabin-then slumped to the ground as Tom finally wrenched the gun from his grasp.

As Nick prepared to charge Bud again, the young inventor cried, "Hold it!"

The scar-faced pilot glared in helpless rage as he saw the automatic Tom was holding. One of Nick's eyes was swollen and beginning to turn black and blue.

"Too bad you got that gun so soon, Tom," Bud said. "Boy, how I'd love to give this bird another shiner!"

Tom ordered the three kidnappers to face the wall of the shack. "With your hands up!" he added sharply.

Bud untied Phyl and Sandy, then used the same ropes, together with some lengths of tough vine, to bind the prisoners' wrists. The girls felt weak with relief.

"How did you ever find us?" Sandy asked.

"Your radio silence worried us, so I finally tried the space prober," Tom explained.

"The space prober!" Sandy gasped. "Oh, thank goodness! We never even thought of that!"

"The sheathing on your Pigeon Special blinds radar, but luckily it doesn't stop the prober from getting a picture with radio waves. Anyhow," Tom went on, "we finally spotted your ship but you two weren't in it. Then we discovered it was trailing another plane, and you were aboard that one. We knew something fishy was going on."

By checking various landmarks, the boys had tracked the two planes to their destination. Then they and Hank Sterling had taken off in a Whirling Duck in pursuit.

"Tom and I left the copter just the other side of that ridge," Bud said. "We sneaked down through the woods while Mr. Snoop was giving the Pigeon's sheathing the once-over."

Tom now signaled Hank Sterling over a small, pencil-size radio transmitter. When he had finished, he turned to the girls and said, "I think you both have a bit of explaining to do too."

Sandy shamefacedly told of her trick. "It was my idea," she confessed.

Tom grinned and gave his sister a comforting hug. "But next time you two get hungry, just say the word. We'll be glad to buy your lunch."

"Promise!" Sandy said fervently.

"Me too!" declared Phyl.

The helijet was already whirring into view over the valley, and Hank soon set it down on the airstrip. The prisoners and passengers were distributed among the three craft, which were then flown to Shopton.

Sandy and Phyl went on home, while at police headquarters Tom and his old friend, Chief Slater, questioned the three kidnappers. None would talk. The older man, who carried no identification, seemed sunk in gloom. The married couple were identified on their pilots' licenses as Nick and Frieda Springurt.

"We've got nothin' to say," Nick snarled. "Just get us a lawyer."

"You'll need a good one. The charge is kidnapping!" Chief Slater retorted angrily.

It was past six when the prisoners were booked and taken to cells. As Tom drove Bud home, they tried to figure out where the three fitted into the picture but to no avail.

After dinner the boys flew to Fearing Island, eager to witness the unmanned flight to Nestria. Again, there was bitter disappointment. The rocket and its cargo were burned to a charred ruin by the time the wreckage landed on Nestria.

"Our men are getting pretty weak, skipper," Jarrild radioed. "This is the fifth day."

As he signed off, Tom turned to his father. "We can't wait for my magnetic deflector. I'm going to try another method of rescue."

### **CHAPTER XII**

#### THE BLACK SPACESHIP

"WHAT do you have in mind, son?" Mr. Swift asked. He too was stricken by the increasingly desperate plight of the Nestria crew but strove to remain calm.

"I'm going to call our space friends and ask for help."

Tom's idea brought a surge of hope to his listeners.

"You're right!" Mr. Swift rapped his fist against his palm. "They've certainly come through in other tight spots!"

Bud nodded fervently. "If they hadn't stopped the Challenger in time, we'd have plowed right into the radiation barrier!"

"And don't forget," Tom added as he switched on the base's automatic space coder, "they were the ones who moved Nestria into earth orbit and gave it an artificial gravity. They may have an angle on this we'd never think of!"

He began beaming out a message to the mysterious planet dwellers. As always, the message had to be coded in stark mathematical symbols.

Bud fidgeted nervously while they waited for a reply, and finally began a game of tick-tack-toe with one of the radiomen. Mr. Swift paced the room. Tom doodled sketches showing his magnetic deflector mounted to the Challenger.

Everyone jerked to attention as the alarm bell signaled an incoming message. Tom dashed to the machine, with Bud and Mr. Swift close behind. The keys were clattering out a message on the unreeling tape. It read:

WE ARE STILL WORKING ON PROBLEM OF DANGER BARRIER. NO SOLUTION YET.

Bud groaned as he read the message aloud over Tom's shoulder.

"Wait! There's more coming!" Tom exclaimed. The tape continued:

TELL MEN ON PHANTOM SATELLITE TO SEARCH BASE OF CLIFF BELOW ENERGIZER CHAMBER. THERE THEY WILL FIND OPENING TO MATERIAL SOURCE TO SUSTAIN LIFE.

"Opening to material source?" Bud stared at the tape in perplexity. "What does that mean?"

Tom frowned. "I'm wondering too, Bud. Any ideas, Dad?"

"Hmm. Well, let's take it bit by bit. 'Material source' might refer to a mine-in which case 'opening' might mean the mine entrance." Mr. Swift stroked his jaw. "But, I must confess, I can't imagine what sort of material to sustain life one would find in a mine."

"Neither can I, but I'll bet you've hit it, Dad. A mine entrance at the base of a cliff certainly sounds plausible," Tom said enthusiastically. "Anyhow, let's pass the word to the crew on Nestria!"

Tom paused long enough to send back an acknowledgment and thanks to the space creatures while the radioman called the asteroid again.

"Something's happening up there, skipper!" the radioman muttered a moment later. He was listening intently over his earphones as Tom came over to stand beside him.

"What is it?"

"Here-I'll let Jarrild tell you himself."

The radioman flipped a switch and the crew chief's voice from Nestria came over the speaker:

"The radarman's picked up something on the scope," Lee Jarrild reported. "Can't make it out yet, but it seems to be orbiting our asteroid."

Tom exchanged excited looks with his father and Bud as he took the microphone.

"Give us the dope as soon as you sight it, Lee," he said. "In the meantime, I have some news for you-good news, I hope!" Tom relayed the advice from the space creatures.

"The energizer chamber?" Jarrild repeated, somewhat mystified. "You mean that-"

"The cliff cavern where Bud and I found the asteroid's gravity device," Tom explained. "You'll find the exact location marked on the map of Nestria. This mine entrance-if it is a mine entrance-must be somewhere along the foot of the cliff, just below the mountain trail that leads to the chamber."

"Okay, skipper. We'll find it." Jarrild's voice broke off suddenly. "Hold it, please! That object I told you about is approaching the base!"

The news electrified Tom and the other listeners in the communications room. They gathered around the set in anxious silence. Finally Jarrild's voice came over the speaker again:

"It's a spaceship-a black spaceship! We managed to pin it with our searchlights just long enough to get a

look at it!"

"Any idea of the ship's nationality or where it came from?" Mr. Swift asked.

"None. It carried no insignia that we could make out," Jarrild replied. "Apparently the craft has been scouting our layout up here."

"You challenged it?"

"The radioman's trying now on another set, but the ship's not responding."

"Where's it heading?" Tom said into the mike.

They could hear Jarrild querying the radar-man. "Outward bound," he reported after a moment. "Probably on a course back to earth."

Tom was seething with excitement. "Tell your radarman to keep tracking it as long as possible. We'll try to pick it up from here and the outpost. In the meantime, check that mine, Lee. Over."

"Roger wilco!"

"Jumpin' jets!" Bud exploded. "Where do you suppose that baby came from?"

"We'll find out-I hope!" Tom said grimly.

He gave an order to the radioman to notify Ken Horton at the space outpost. Then he picked up the telephone and called George Billing, who was still at the missile tracking center. Tom told him hurriedly about the black spaceship and added, "We may lose contact with Nestria again soon, so get a radar plot of the ship's course as soon as possible."

"Right, skipper!"

"I want you and Ken to track it back to its base after re-entry-that is, if it's really headed earthward."

Morning found the Swifts and Bud gathered at the island's tracking center. All were leaden-eyed from the night's vigil but jubilant over the results. In spite of difficulties, both Fearing and the space outpost had managed to track the mystery ship almost continuously from soon after the first alert.

"What gets me is the way she sailed right through the radiation barrier," Bud growled. "How do you figure her crew did it without going boom?"

"Tom has the answer, I think," replied Mr. Swift. "Probably a control device which they landed on Nestria some time earlier."

Tom nodded. "These astronauts must be able to switch the strength of the barrier up or down. That's why the radio signal came through louder and clearer while the black ship was leaving Nestria."

Bud said angrily, "It proves the guys aboard her are the ones who cooked up the whole deal of barricading Little Luna."

Meanwhile, Billing was busy at the computer, processing the radar data from the space outpost and the

rocket base.

"Okay, here's the latitude and longitude of the point where the ship landed," he announced. Going over to a huge wall map, Billing picked out the spot.

"Argentina!" Tom cried.

The black craft had come to earth in the foothills of the Andes, near the tip of South America. The spot lay south of Lake Argentine.

"Bad, this is all the proof we need!" Tom exclaimed excitedly. "It means there's a definite link between the Argentine business that the CIA is worried about and our trouble on Nestria!"

"No doubt about it," agreed Mr. Swift. "But we're still in the dark about what's behind it all."

Tom's eyes took on a determined glint. "There's one way to find out. I'll fly down to South America in the Sky Queen and see for myself what's going on!"

"All right, son. But whatever happens, act with extreme caution. Remember, we're up against a deadly enemy with great scientific resources. I don't need to tell you that we can't afford an international incident, either."

"Don't worry, Dad. I'll be plenty careful."

After a hasty breakfast the Swifts flew back to Enterprises with Bud. Here, Tom briefed his father on the details of the magnetic deflector, and Mr. Swift promised to undertake the building of a full-scale model at once.

An hour later the huge Flying Lab was zooming aloft from its special runway. Aboard with Tom and Bud were a three-man crew, consisting of Hank Sterling, Chow Winkler, and Arvid Hanson. Arv, one of the Swifts' most trusted employees, was a burly six-footer. But his touch was as expert at the wheel of a plane as it was in gauging a delicate machined part with a micrometer caliper.

At blinding speed the mighty atomic-powered Sky Queen streaked southward. Below the billowing cloud banks, its occupants glimpsed blue water, endless stretches of green rain forest, and awesome mountain ranges. Tom and Bud slept soundly for part of the trip while Hank and Arv took over as pilot and copilot.

When they reached Patagonia, the southern part of the continent, the Flying Lab descended over the slopes of the Andes, traveling eastward into vast treeless plains.

"Lake Argentine," Bud remarked, glancing at a map as they flew over.

Tom nodded. "And that river of ice dipping into it must be the Moreno Glacier." The young inventor slowed speed to reconnoiter the mountains to the south. "This is just about the spot," he announced after a while.

"Hey! What's that below?" Arv said in a startled voice. Tom swooped lower to inspect a stone building nestled among towering crags. He snatched up binoculars and studied the structure intently. Before Tom could comment, the ship suddenly began to vibrate.

Arv clutched his forehead with a gasp of pain. Bud, too, stifled a groan while Hank shuddered and clamped his lips tight. As he fought to bring the ship under control, Tom felt an agonizing pain in his head, combined with giddy waves of nausea.

"What's happening to us?" Bud cried out wildly.

## **CHAPTER XIII**

### **ENEMY STRONGHOLD**

"WE'VE found the enemy base," Tom gritted. "Unless I miss my guess, they're beaming a type of ultrasonic wave at us!"

The temperature in the flight cabin of the Queen was rising noticeably by this time. The fliers' faces were sickly pale and streaked with perspiration.

Half blinded with pain and nausea, Tom gunned the main jets and sent the Flying Lab soaring aloft toward the snow-capped purple peaks to the west. Within moments, the frightening vibrations slowly died away.

As the plane leveled off among the clouds, Hank Sterling mopped his brow with a handkerchief. "Boy!" he muttered. "A bit more of that and I'd have passed out!"

"It sure was rough while it lasted!" said Arv.

Chow had come forward from the galley. His no leathery face bore a slightly greenish tinge. "Brand my smellin' salts, I was plumb fixin' to die!" He stopped short when he saw the expressions of the others. "Looks like you fellers been feelin' the same way. What caused it, Tom-just that shakin' up we got?"

"More than that, Chow. Ultrasonic waves."

The cook looked both mystified and relieved. "Thank goodness it wasn't nothin' we et," he said, "or I'd of give up cookin' fer good!"

Tom chuckled in spite of himself and explained what he meant. "That fortress didn't look like much of a layout for a spaceport or launching base," he went on. "But there may be more to it than meets the eye. I don't think they spotted us. I think that beam is a routine precaution to keep everyone away."

"Okay, let's go back for another look," Bud said gamely.

Chow winced apprehensively, and Arv said, "If they spot us, they may use something stronger than an ultrasonic beam."

"Could be. Those lads are playing for high stakes," Tom agreed. "For that matter, the ultrasonic beam could cause a crash."

"Have you a plan, skipper?" Hank asked.

Tom thought for a moment. "We'll go back but try to keep out of range of the beam and land somewhere. Maybe we can do some scouting on foot."

Just in case the enemy might be following the Flying Lab's course on radar, Tom continued flying westward as if the plane were crossing the Andes to Chile. After a while he banked and headed in a southerly direction, then gradually circled back toward the enemy base. He was careful to fly low and hug the mountains for cover. Finally Tom switched on the Queen's jet lifters and made a vertical descent onto a high, narrow plateau.

"I'm coming with you, Tom," Bud said firmly as the young inventor unstrapped his seat belt.

"Okay. The rest of you stay here, but keep a sharp lookout."

"You do the same, skipper," Hank Sterling said in a worried tone of voice.

The two boys climbed from the plane and began making their way toward the mysterious rock structure. Scrambling down a precipitous, winding ledge, they clung to brush and rocky outcrops to keep from falling. The ledge sloped into a shallow, boulder-strewn gorge. After trudging across it, Tom and Bud ascended a craggy shoulder clad with stunted pine.

To the right the trees thinned into a mountain meadow of scrubgrass dotted with wild flowers. A herd of guanacos, startled by the climbers, loped off to a safe distance. The thick-coated animals stood staring suspiciously at the two intruders for a while, then resumed their grazing.

"The critters don't trust us," Bud remarked with a grin.

Beyond the ridge the ground fell away sharply, then flattened again and ended abruptly in a sheer drop-off. The two boys, winded from their climb, crawled to the edge of the cliff and peered over.

Bud gave a low whistle. "Some layout!"

The stone building, high-walled and battlemented, stood perched in a cleft among the crags. From its main gate a road twisted downward along a series of ledges into the canyon below.

"Wonder how it got here?" Bud puzzled. "It sure doesn't look new."

"Probably built by one of the old Spanish conquistadors," Tom guessed. "What I'd like to know is who's using the place now."

The young inventor focused his binoculars on the fortress. No sign of life or activity was evident. The canyon floor, too, seemed oddly barren and lifeless.

What did catch Tom's eye were two dish-shaped antennas, visible in the corner turrets. One of these, slowly revolving, was obviously a radar scanner. The other, Tom felt sure, contained the ultrasonic transducer.

"Let's hope we came in low enough so that ridge hid the Queen from their radar," he muttered worriedly. "I'd hate to-"

Tom's words were interrupted as a harsh voice behind their backs suddenly barked:

"Levdntense!"

The boys stiffened in dismay. Hearts pounding, they raised themselves enough to look around. Two men stood scowling at them, scarcely a dozen yards away. Both held automatic rifles aimed in the boys' direction. One of the men was swarthy and bearded, the other clean shaven. They were wearing smart-looking military caps and uniforms of olive drab.

"Levdntense!" the bearded man repeated.

"They want us to stand up," Tom translated. "We'd better do it." The boys got to their feet.

"Que pasa aqui?" the bearded man demanded belligerently.

"He wants to know what we're doing here," said Tom.

The young inventor's brain was working fast. Suddenly he had an inspiration. After asking in Spanish for permission to reach into his pocket, Tom took out the cobra crystal presented by the mysterious Oriental in New York and murmured to Bud to do likewise.

The effect on the two men was startling. At sight of the crystals, their scowls faded instantly, and they lowered their rifles.

"Mil perdones, amigos!" Grinning apologetically, the bearded man touched his cap in salute. "Why did you not tell us sooner that you belong to the group?" he said in Spanish.

So his guess had been right, Tom thought! The cobra crystals were secret badges carried by members of the enemy organization.

"You gave us no chance," Tom replied in Spanish.

The bearded man shrugged. Before Tom could plan his next move, the guard said, "Come! We will escort you to the base!"

The boys felt pangs of fear, but could see no way to refuse without arousing the sentries' suspicions again. Tom said, "Guess we'd better play along. We've fooled these guys with the cobra crystals-maybe our luck will hold."

"If it doesn't, we're in the soup, pal!" Bud muttered nervously.

The sentries cradled the rifles under their arms and guided the boys along the cliff to a narrow, rocky draw. Here a cleverly concealed path trailed down toward the fortress. The bearded man went ahead, while his partner brought up the rear, behind Tom and Bud.

A twenty-minute trek brought them to the gate. It opened silently as the first sentry spoke a few words into a wall phone. Entering, the group crossed a paved courtyard, where other armed guards were standing about, clad in similar olive-drab uniforms. Two of them held open the great doors of the fortress while the boys and their escorts went inside.

They were now in a high-vaulted, stone-flagged hall. But Tom and Bud had little time to look around. Their eyes were drawn at once to a striking figure who stepped from behind a huge desk to meet them.

Towering well over six feet, lithe and muscular

as a jungle cat, the man was clad in a sleek-fitting black uniform trimmed in gold braid. His head was shaven bald, except for a short queue of jet-black hair which dangled to one side. His eyes, green as twin agates, and faintly slanted, studied the boys impassively. Tom judged him to be Eurasian.

"New arrivals, Excellency," the bearded guard announced in Spanish. "Each possesses the emblem."

"Ah, so?" The tall man held out his hand.

With a twinge of uneasiness Tom produced his cobra crystal and Bud also got his out. A number of other black-uniformed figures, evidently the leader's personal bodyguards, looked on in silence.

The tall man took the crystals and examined them, then glanced at the boys. His eyes glinted with sardonic amusement.

"Most interesting," he murmured in English. "Especially since two such crystals were recently stolen from members of my group."

Suddenly he flicked his finger in a quick upward gesture. Before Tom or Bud could react, guards rushed forward to overpower them.

As the boys' wrists were tightly bound, the tall man threw back his head and gave a shrill, blood-freezing laugh. He was still shaking with mirth as his glittering eyes returned to Tom.

"Did you not think that such a famous young inventor as yourself is well known from newspaper pictures?" he queried mockingly.

With another shrill burst of laughter, the tall man added, "Welcome, Tom Swift-welcome to the lair of the Black Cobra!"

### **CHAPTER XIV**

# A TERRIFYING ORDEAL

THE Black Cobra! A chill ran down Tom's spine. At last he was face to face with his enemy!

"We seem to have walked into a trap," Tom said, trying to keep his voice calm.

"Most fortunately for me!" The Black Cobra gave a triumphant chuckle and flung himself down in a high-backed chair behind his huge desk. Tom noted that the desk was studded with push buttons and switches, as well as a built-in television.

"I take it you created the invisible barrier around Nestria?" the young inventor queried, hoping to get the Eurasian talking and perhaps learn the purpose of the enemy project.

"Quite correct. A deadly barrier of antimatter particles, as you probably have guessed." The Cobra's stony eyes shone proudly as he went on,

"The particles, by the way, were produced in my own atomic laboratory, a thousand feet below us. Who would guess that these mountains hide one of the world's greatest particle accelerators!"

Tom was impressed. The production of antimatter would require not only powerful equipment but the highest degree of technical skill.

"I'm still puzzled about why you want the asteroid shut in by the barrier," Tom probed.

The Eurasian's lips curved into a cunning smile. "Can you think of a better way to take over the asteroid without force?"

"Take over?" Bud exploded. "Listen, mister, Nestria belongs to the U.S.A.! You haven't taken it over yet and you're not going to!"

"Permit me to disagree," the Black Cobra said. "Swift Enterprises has tried repeatedly to send relief rockets through the barrier-and failed. Missiles launched by your government would be no more effective. Already your base personnel on the asteroid are near starvation. Soon nothing will prevent my landing and claiming Nestria."

The prospect struck Tom with dismay, but he tried not to let it show in his face.

"That would be piracy-space piracy! You'd never get away with it!" the young inventor snapped.

"Piracy?" The Eurasian's eyebrows lifted sarcastically. "You have much to learn, my young friend. It is piracy to seize a vessel by armed force.

But to take over a helpless derelict is no crime whatever.

"Under international law, an abandoned vessel becomes the prize of anyone who puts a towline on her. Nestria, as a manned asteroid orbiting the earth with its personnel dead, certainly could be considered just such a derelict."

Bud threw a fearful glance at Tom. "Is he right?"

"I'd say it's a legal point that would have to be decided before an international court."

The Black Cobra chuckled. "A process which would take months-giving me ample time to sell Nestria to the country with the highest bid."

He paused to select a long cigarette from a box on his desk. A guard rushed to snap a lighter as the Eurasian fitted the cigarette into a gold holder.

"As you know, there are nations which would pay a fabulous price for such a base above the earth," the Cobra continued, "a base which could be turned to military advantage. They are nations, I might add,

which care nothing for any decision an international court may reach."

"Don't count on finding Nestria helpless," Bud retorted angrily. "That barrier may not be so impassable as you think!"

The Cobra's reptilian eyes narrowed and he turned back to Tom. "I have known that you Swifts would be a dangerous obstacle. I had hoped you would try to reach Nestria and be destroyed in the antimatter barrier. After that hope failed, I tried to get rid of you and your father by other means."

"By having our plane's altimeter sabotaged?"

"Exactly. But now that you two are my prisoners, the solution becomes much simpler."

Tom said icily, "We have your base pinpointed. If I don't come back, my father has only to notify the Argentine government to have your fortress raided."

"Frankly, I doubt it." The Eurasian crushed out his cigarette. "On the contrary, when your father learns that you are my hostage, I think he will gladly abandon all opposition to my project. He will make no further attempt to relieve the base."

Tom laughed contemptuously. "That's what you think."

"Yes, it is what I think," the Black Cobra agreed, "because I shall inform him that, at the slightest sign of opposition by Swift Enterprises, you will be put to death-horribly. Meanwhile, your time need not be wasted. You possess the secrets of many priceless inventions. I intend to extract from you every ounce of scientific information which may be of use to me."

"And if I don't cooperate?"

"That would be most unfortunate-for you."

Tom regarded the Eurasian coldly.

"I see that persuasion may be needed." The Eurasian spoke to a guard in an Oriental tongue and the man disappeared from the room. Presently he returned, carrying a small, covered wicker basket, which he handed to his master. The Eurasian removed the cover and pulled out a snake.

The creature, dark brown in color, slowly puffed out its neck just above the point at which the Eurasian was grasping it. From the spectacle-shaped marking on its hood, Tom and Bud recognized the snake as an Indian cobra!

"You are acquainted, perhaps, with the effects of cobra venom?" their captor asked. "It is a deadly neurotoxin which paralyzes the nerves of breathing. The victim strangles or dies of heart failure."

He held the snake close to Tom, whose forehead grew clammy with perspiration.

"There is, of course, an antidote to the venom," the Eurasian went on. "What a pity if we should fail to administer it in time!"

Bud stifled a cry of horror as he saw the man drape the cobra over Tom's shoulder. The young inventor did not flinch.

Slowly, the snake crawled over Tom's left arm, then upward across his chest. Tom stood like a carved statue. The snake paused, its head weaving back and forth close to Tom's face. Gradually its puffed-out hood subsided to normal size. Then it coiled around Tom's shoulders and relaxed docilely.

The Eurasian's eyes showed grudging admiration. "Bravo! A remarkable exhibition of courage." Removing the cobra, he returned it to the basket.

"That is enough of a test for the moment, I think. But let me add that I am an expert on snake poisons. It is most entertaining to observe the agonizing variety of symptoms they can produce. Perhaps you would like to see some of these venoms tried out on your friend, eh?"

Bud and Tom exchanged quick, fearful glances as the Black Cobra watched them closely.

"That is what will happen, my dear Tom Swift," he continued, "if your stubbornness persists. But enough for now! I have much to do. I shall leave you time to reflect on what I have said."

He gestured to the two sentries who had brought Tom and Bud to the fortress. Nudging the boys with their rifle butts, the guards conducted them from the room into a narrow stone passageway. Then, prodded by the rifles, they walked up several flights of steps and down another corridor. Here a third guard untied the boys' wrists and shoved the captives roughly into a cell. A steel door clanged shut behind them and they heard the key turning in the lock.

"Whew!" Bud sagged against the wall. "I thought I was going to pass out when he put that cobra on you, Tom. How were you able to keep so cool?"

"Cool my eye! I was scared skinny," Tom confessed. "I tried to picture the way Dad always acts in a dangerous spot-you know, calm and collected. That helped some."

"But how did you know it wouldn't bite?"

The young inventor shrugged. "I didn't. But it seemed like a fairly good gamble."

Bud looked mystified. "Are you kidding?"

Tom shook his head. "No. From the casual way he handled the snake, I figured there were two possibilities. Either the cobra's fangs had been pulled, or else it was used to being handled."

"Not by you, pal," Bud retorted.

"That's true. But I remember reading that snakes can't distinguish between one person handling them or someone else. Also, that cobras are far less aggressive than most people believe, as long as they have nothing to fear. So I tried not to move a muscle or startle the critter and-well, nothing happened."

"You'll sure never catch me taking that kind of a gamble!" Bud declared. "At least, not if I can help it!"

"Ditto, pal!" Tom agreed. "It could be fatal. But you see, I'm also pretty sure the human Black Cobra wants me alive-I'm too valuable as a hostage. If the snake did have fangs and had bitten me, I'll bet he would have jabbed me with anti-venin in a hurry."

Bud gulped as he recalled their captor's parting threat. "Maybe I'm not that valuable. I hope I don't

have to find out the hard way!"

Tom's face turned grim at the thought. His eyes roved about the room. Their cramped cell was bare except for a pair of steel bunks chained to the wall. Tom examined them. Each had a braided fiber sleeping mat.

"Hey! What's that?" Bud exclaimed suddenly. From a distant source the roar of some powerful machine filled the air. The stone walls of the boys' cell and the outside corridor seemed to magnify the sound like an echo chamber.

"Generators," Tom said. "Must be operating some pretty heavy machinery in this layout- maybe their particle accelerator."

The cell had a single barred window. Tom strode to it and peered out. It overlooked a steep, precipitous drop onto the cliff face below.

"Don't give up hope, Bud," he said, turning back to his friend. "I have a plan. It may be dangerous, but it looks like our only chance!"

### **CHAPTER XV**

### DOWN THE PRECIPICE!

THE cell darkened as dusk closed in over the mountains. Bud prowled back and forth like a caged panther. Tom, who was stretched on one of the bunks, said sympathetically:

"Take it easy, Bud, and save your energy."

"How much longer before we make the break?" Bud asked, glancing at the barred window.

"Not long. But we'll stand a better chance if it's completely dark. There may be a lookout somewhere up on the parapet."

Presently the boys heard a key grating in the lock. The cell door opened, and the jailer, a fat, shiny-faced man with a drooping dark mustache, thrust in two pans of food.

"Eat well, amigos," he said in Spanish. "It may be your last meal. The Black Cobra will see you shortly."

The instant he withdrew and locked the door, Tom sprang up. "That settles it, pal," he whispered to Bud. "Let's get cooking!"

The outer frame of each bunk was a length of angle iron which merely hooked onto the end pieces. The boys unhooked the six-foot length from Tom's bunk and inserted one end of it between two bars of the cell window.

"Okay, heave!" Tom said.

Using the implement as a lever, he and Bud forced it as far as possible to one side, then back in the opposite direction. The bars creaked and groaned as the boys repeated the maneuver. The noise was masked by the hum of the fortress's generators.

By desperate tugging and hauling, Tom and Bud finally wrenched the bars loose from the masonry. Ten minutes later two more bars yielded.

"Wow! My hands feel like raw meat!" Bud muttered, rubbing them gingerly.

"Come on!" Tom urged. "Let's get those bunk mats unwound!"

Each dragged one of the mats close to the window and began ripping loose the thick braid. Stars were twinkling by the time they finished. Tom took the two loose ends from the piles of fiber and spliced these together to form a single continuous rope.

"That should give us plenty of length. And I think it's strong enough to hold us."

"It better be!" Bud said.

The boys tied one end of the rope to Bud's bunk, then cautiously began lowering the rope through the cell window.

"Okay. Who goes first?" Bud asked.

Tom plucked a coin from his pocket, spun it in the air, and slapped it down on the back of his hand.

"Tails," Bud said.

There was barely enough light left to make out that the coin had landed heads.

Bud gave Tom a quick handshake. "Good luck!"

"Same to you, fly-boy!"

Bud helped Tom up to the window sill and the young inventor wriggled out between the remaining bars. Then he began letting himself down, hand over hand.

The rope extended well below the base of the fortress wall. Soon Tom was scrabbling for a foothold on the cliff face. Presently he gave the rope a jerk to signal his success.

Instantly Bud hoisted himself up far enough to slither through the opening. Suddenly he heard the cell door being unlocked. His heart thudding, Bud maneuvered himself frantically into position to descend. But as he started down the rope, the mustached guard came dashing across the cell and thrust his head out the window.

"Stop!" he bawled. Then in Spanish, "Ayuda! Los prisioneros escapan!"

The guard braced one foot against the wall and began yanking up on the rope. Bud groaned with helpless rage. Either he would be pulled back into the cell or end up dangling high over the precipice and

have to jump for it.

"Better deal with the fellow now," Bud decided.

He stopped his downward climb and waited until the guard had hauled him up to the window. They were almost face to face now-the guard perspiring and muttering angrily in Spanish.

"Looking for me, buster?" Bud's right fist shot through the window, catching his foe squarely on the chin!

The guard let go the rope and staggered backward. Down shot the line! Bud barely had time to grab hold again with both hands before the rope tautened. A split second later came a sharp crack like a rifle report.

The braid had parted from the sudden shock of Bud's weight!

Tom gasped, horrified, as he saw his friend plummet through the darkness. Then he sucked in his breath with relief as he heard a crash of branches. Evidently Bud had landed in a tree somewhere farther down the cliff slope.

Tom half slid, half scrambled toward the sound. By this time he could hear the shrill wail of an alarm siren from the fortress.

"Bud!" Tom called cautiously. "You okay?"

He was in a clump of firs now. The next moment Tom exclaimed and stopped short as a figure landed with a thump almost in front of him.

"Right with you, pal!" It was Bud, on two feet and chuckling. He had dropped from the branches of the tree into which he had fallen.

"Thank goodness! You old space shark!" The boys exchanged a quick bear hug. "No broken bones?"

"Just minor lacerations. But I may be picking pine needles out of my hide for a while!"

Just then the two heard a noise from the fortress. "They're opening the gate!" Tom warned. "Come on! Let's scram!"

"Where to? Same way we came?" Bud asked as they labored along through the darkness.

"No! That's probably what they'll expect us to do!" Tom reasoned. "Let's strike out along the canyon floor! The cliff didn't look too steep at the far end!"

A gust of night wind carried a confused, raucous babble of voices to the boys. Gunshots rang out, ricocheting from scattered points.

"They're shooting at shadows!" Bud muttered. "At least they haven't spotted us yet!"

Slipping, skidding, and grabbing for handholds, the boys plunged on down the cliff. They reached level ground and started off at a run.

Soon a searchlight beam stabbed through the darkness-then several more. The brilliant shafts crisscrossed, weaving back and forth, sweeping the valley floor and surrounding cliffs.

"Look out! Duck!" Tom warned as a cone of light brushed them.

The moving beam stopped abruptly and swiveled back, trying to pin the two fugitives in its whitish glare. Tom and Bud, dodging like broken-field runners, barely managed to elude it.

"Bear right! Toward the cliffs!" Tom directed.

The lower slopes, he had noticed, were covered with brush and evergreens. Miraculously the boys managed to reach them without being spotlighted by a beam. But they could hear sounds of pursuit moving up the valley.

"What now?" Bud whispered.

"Double back," Tom decided. "We'll try to find that trail through the draw."

Scrambling back along the cliff slope, they finally found the hidden trail and began clambering upward. A desperate climb brought the boys to the top. Bud flopped full length on the ground, gasping painfully for breath. Tom, too, was winded and streaming with perspiration.

"Think we dare radio the Queen?" Bud asked.

Tom nodded. "But let's wait till we top that next ridge. Might block our signal from here, and we'd just give away our position for nothing."

The boys struggled on. Searchlight beams were still fingering the valley and the cliffs, but the shouts and gunfire had died away. Tom guessed that the Cobra's men probably had split up into small search parties.

When the boys reached the crest of the ridge, Tom pulled the small pencil radio from his shirt pocket. It had gone unnoticed by his captors when they had searched Bud and him. Apparently the men had thought it was merely an ordinary pencil, or they would have removed it. He switched it on and began calling the Sky Queen, referring to himself by an old code name.

"Mr. Fixit to Lab. . . . Do not respond. . . . Hitchhikers bearing approximately north-northeast from touchdown. Look for blinking light. Over."

Tom guessed their bearing roughly from the point where the Sky Queen had landed. He felt that this, combined with the light, would be enough of a clue. He repeated the call.

The boys squatted in the brush, straining their eyes to penetrate the darkness. Although the night was cloudy, there seemed to be sufficient moon-glow to make out the huge plane whenever it might appear on the skyline. Minutes passed with no sign of the ship.

"Try 'em again!" Bud urged.

Tom did so hastily, trying not to give the enemy time for a radio fix.

Bud glanced around uneasily. "Those searchlights are coming too close for comfort," he muttered.

"What do you suppose is keeping Hank?"

"I wish I knew!"

An instant later both boys flung themselves flat as a glare of light raked the ridge.

"Whew!" Tom sat up again. Then his eyes widened joyfully. "The Queen, Bud! Here it comes!"

A black shape was zooming in from the west. Its conformation, silhouetted against the sky, was unmistakable. Tom whipped out his pocket flashlight and waved it skyward, switching it on and off.

Within moments the huge craft was hovering in low on its jet lifters. A rope ladder was let down and the boys began to climb. They were halfway up when a searchlight caught the Flying Lab squarely in its glare.

"Take off!" Tom yelled. "We'll hang on!"

A spurt on the main jet sent the Queen arrowing down toward the gorge beyond the ridge. Bursts of flak exploded in the night sky a second later, but by this time the Flying Lab was safely alee of the mountain spine.

Tom and Bud were hauled aboard by Chow Winkler and Arv Hanson. Then Hank Sterling, at the controls, sent the ship streaking off into the darkness at top speed.

"Brand my cactus pie, we was gettin' plumb worried about you buckaroos!" The faithful cook fussed over the two boys as they sank into bucket seats in the roomy flight cabin.

Hank explained that an enemy search party, equipped with binoculars, had been sighted about an hour before darkness. "We figured if they hadn't already spotted us, they soon would, so we hightailed it," Hank said. "But we tried to stay in transmitter range."

Tom told what had happened in the enemy stronghold, then radioed his father in Shopton, using scramblers to foil enemy eavesdroppers.

"I'm not sure how the authorities will handle this, son," Mr. Swift responded, "but I think the Cobra's base should be watched in the meantime. Stand by while I notify the CIA."

"Sure thing, Dad. We'll keep out of range of his ultrasonic beam and ack-ack."

"Good! It may take a while to get an official directive from Washington."

"We'll wait," Tom acknowledged.

As the hours passed, the Queen circled the fortress at wide range, soaring to ionospheric altitudes, or lurking doggo among the mountain peaks.

Dawn was breaking as the plane swooped in to give its occupants a closer look. An amazing sight greeted Tom and his companions. The whole floor of the canyon had been opened like bomb-bay doors, disclosing a black rocket ship on a launching pad! It rose on a pillar of fire and streaked spaceward!

### **CHAPTER XVI**

#### ATTACK ON NESTRIA

"SO THAT'S the side-windin' pirate ship what's been causin' all the trouble!" Chow stared after the enemy rocket dwindling into the blue.

Tom nodded grimly. "That's it, all right." He banked and zoomed upward as a burst of flak exploded nearby. Meanwhile, the canyon floor was closing. In moments there was no longer any sign of the immense subterranean launching chamber.

"What a layout they must have down there!" Hank exclaimed.

"Where do you suppose that black spaceship is heading, Tom?" Bud asked. "For Nestria?"

"Definitely. I'll bet our escape has prodded the Black Cobra into acting sooner than he planned!"

"What do you mean, skipper?" asked Arv.

"I mean he's not going to wait to starve the base into submission. He can't risk it after spilling all his plans to us. My hunch is he'll capture Nestria by force!"

Tom radioed the news to his father. "Any word yet from the CIA?" he added.

"A special meeting has been called with the combined Chiefs of Staff and representatives of the State Department."

"Dad, whatever they decide, it's up to us to get a relief expedition ready to take off for Nestria as soon as possible! Ten to one the Black Cobra was aboard that spaceship."

"I agree, son."

"What about my magnetic deflector?"

"A crew's been working on it around the clock. It should be ready by noon today."

"Then suppose we start back," Tom proposed. "I can be of more use chasing that snake."

Mr. Swift, too, thought that Tom should prepare the Challenger for its attempt to pierce the antimatter barrier. In the meantime, he would alert all government tracking stations, as well as the space outpost and Fearing Island, to pick up the black spaceship on radar.

Signing off, Tom set the Sky Queen on a homeward course. As the atomic three-decker streaked over the South American continent, Arv and Hank insisted upon taking over the controls again from the two boys.

"You fellows have had a rough time," Arv said.

"Besides, you'll be up to your ears in work when we land," Hank added.

"Okay, we'll take turns." Tom unbuckled his seat belt and stood up, stretching his weary muscles. "Call us in an hour."

Hank and Arv, however, let the two boys sleep on, undisturbed, for most of the trip. Consequently, Tom and Bud were refreshed when Chow finally came to the bunkroom and wakened them. They returned to the flight compartment.

"Now you two hit the bunks!" Tom ordered.

An hour later Tom set the Flying Lab down neatly on its special runway at Enterprises. Before disembarking with Bud, he went to check on their two sleeping crewmates. Both Arv and Hank were snoring soundly.

"Don't wake 'em," Tom told Chow. "I'll be flying the Queen over to Fearing anyhow, so they might as well stay aboard."

"What about me, boss?" The Texan's face wrinkled quizzically at Tom. "You ain't countin' me out o' this showdown on Little Luna?"

"Not if you want to come along, old-timer." Chow grinned contentedly as Tom squeezed the cook's shoulder affectionately.

The boys sped to the main building. Miss Trent, the Swifts' secretary, informed Tom that his father was in the observatory. He and Bud hurried up to the dome and found the elder scientist scanning the sky with the space prober.

"Any news, Dad?" Tom asked.

"The meeting in Washington just broke up," Mr. Swift reported. "Our State Department has notified the Argentine government about the Cobra's base in Patagonia, but Defense is withholding action until we know what's going on."

"Jumpin' jets!" Bud exclaimed. "I hope they don't wait too long!"

"Hasn't the Cobra's ship been tracked?" Tom asked.

"No, son. Neither the government tracking stations nor our own facilities have been able to pick up his course. I suspect he's using a radiation screen of a new type to blind our radar and the prober waves."

Tom nodded thoughtfully. "Dad, this leaves us in a worse spot than ever!"

"It certainly doesn't help," Mr. Swift agreed in a troubled voice. "Personally, I believe he's skulking in earth orbit somewhere, waiting for the right moment to strike."

Tom's fists clenched. "And that's all the more reason to get going in the Challenger. Is the magnetic deflector ready, Dad?"

"If not, son, it should be soon. We ran into a few last-minute bugs I had to straighten out-on the helium

pump and the input to the pulse-frequency computer. But they were making the final assembly last time I checked."

"Swell! Let's go take a look, Bud!"

Before leaving, Tom made a hasty call to Art Wiltessa and asked him to have a set of radar-blinding equipment for the Challenger loaded aboard the Flying Lab. Then he and Bud hurried over to the electronics department.

Here they found Dave Bogard, a Swift engineer, making a final bench check of the circuitry in the deflector's control console. The most imposing part of the assembly was the probe output tube. For his full-scale model, Tom had designed this in the shape of a silver arrow, twenty feet long, piercing the huge figure-eight armature.

"Wow! What a hood ornament that'll make for our space jalopy!" Bud exclaimed admiringly.

A few minutes later Dave Bogard reported, "She's all checked out."

"Good going. Let's get a truck backed up to the loading platform so we can haul the whole thing over to the Sky Queen."

Soon the Flying Lab was winging toward Fearing Island. After landing at the rocket base, Tom had the equipment trucked to the Challenger's launching site. Then began a frenzy of activity as mechanics swarmed over the spaceship to apply the radar-blinding sheath. The controls were connected inside and the magnetic deflector was mounted forward on the ship's landing platform.

Late in the afternoon Tom was interrupted by an urgent call from Harlan Ames. "One of those kidnappers who hijacked Sandy's plane is ready to talk, Tom," he said. "It's the gray-haired foreigner. He wants to see you. Can you make it over here?"

"I sure can, Harlan!"

Leaving Bud in charge of the work, Tom flew back to the mainland. Ames had a car waiting and they drove to Shopton Police Headquarters. Chief Slater took them to the man's cell.

"Ah, good. You have come," the prisoner said to Tom. "I am ready to make a statement."

Slater unlocked the cell door and they went inside. "Suppose you start by telling us your name and nationality," Tom said.

"Franz Varad," the prisoner replied. "I am originally from Eastern Europe, but I no longer have a country. I am what you call a displaced person- a stateless exile."

"You sound as if you've spent some time here in America," Ames commented.

Varad nodded gloomily. "I received my doctoral degree in engineering here, and I have worked in this country for several years. But I was underpaid. I could find no job worthy of my talents! Because I lacked security clearance, no one would employ me for any important space or missile project. That is why I foolishly became involved in this mad plot against Tom Swift."

"So you went to work for the Black Cobra?" Tom said coldly. Varad's heavy-featured face turned a

shade paler. "Ah, so you know!" he murmured. "John Tsu must have talked, after all."

"He not only talked," Tom said, "but I've met the Cobra face to face. In fact, I just came back from his base in Argentina."

Varad could tell from Tom's steely gaze that the young inventor was not bluffing. "In that case, there is no longer reason to hide anything," he said wearily. "I will tell all and throw myself on your mercy."

Varad revealed that he had been recruited for the Black Cobra's space project at huge pay. The offer had been made by the Cobra's chief agent in the United States, whose true identity Varad did not know. He was able to supply a description and various clues, however, which Tom and Ames felt would enable the FBI to track him down.

When the Cobra was ready to launch his project against Nestria, Varad had been sent back to America to assist in the moves against the Swifts. The so-called hospital guards who had pursued and shot John Tsu had been the Cobra's men, Varad said, but he was not one of them. It was he who had sent the bracelet to Sandra Swift.

"What about that couple who helped you kidnap the girls?" Chief Slater asked.

"Nick Springurt and his wife?" Varad shrugged contemptuously. "They are of no account-hired for the one job and know nothing of the Black Cobra. They are ex-stunt pilots-wanted for smuggling and gunrunning. We blackmailed them into helping us."

"I imagine the Customs Service will be interested to hear about that," Slater said dryly.

Tom questioned the prisoner closely about the barrier of antimatter particles around Nestria. Unfortunately, Varad had worked mostly on the design of the Cobra's spaceship and could supply few technical details on the antimatter barrier.

"I do know that he secretly landed a control device on the asteroid by means of a missile," Varad said. "I believe this device generates the repelling force to hold the particles in position."

Tom realized that his guess had been accurate. "And the Cobra has some way to weaken the barrier when he wants to pass through in his own ship?"

"Yes. The device has a remote-control switch which operates on a signal from his ship. When the repulsion force is increased, the particles are temporarily dispelled outward, and his ship is able to pass through the barrier safely."

Before leaving the cell, Tom promised to do what he could to see that the information supplied by Varad would count in his favor.

Varad smiled wanly. "I have been a stupid fool."

Ames remained with Chief Slater to quiz the Springurts again. Tom was too impatient to wait. He taxied back to Enterprises and took off at once for Fearing.

Bud had the work well in hand, but darkness had fallen before the Challenger was finally ready for take-off. The boys snatched a hasty meal at the mess hall with Hank and Arv, then they all stopped by the communications office before returning to the launch area.

The radioman looked up with startled eyes as they entered. "Nestria's being attacked!" he exclaimed.

He switched on the speaker and the Nestrian operator's voice came through: "The black spaceship is zooming in on us! . . . Please send help! . . . The men are . . ."

The voice became indistinct, then faded into silence.

## **CHAPTER XVII**

### A CRUCIAL TEST

TOM grabbed the microphone. "Fearing calling Nestria! Come in, please!"

The radioman frantically tuned the receiver, trying to recapture the signal. "No use, skipper. They're off the air."

Even though an attack had been feared, the blow had come so suddenly that Tom and his companions were stunned. Apparently Nestria had fallen to the enemy!

"Those sneaking rats!" Bud exploded.

"Why couldn't the base have been armed?" Arv raged. "Our men could have blasted that ship into space dust!"

"It was out of the question," Tom said grimly. "When we first took over the asteroid, our government proclaimed it a peaceful scientific base for the benefit of all mankind."

"Which makes this sneak blitz all the dirtier!" Hank Sterling stormed.

Tom was trying to keep his head, but inwardly he was blazing with anger and with fear for the base personnel's safety. More than likely the Black Cobra would ruthlessly wipe out every American on the asteroid!

"Get Enterprises!" Tom told the radioman.

In a few moments he was speaking with his father. Mr. Swift was appalled by the news of the attack but counseled caution.

"This is a matter for our government now, son," he said tensely. "I think we must wait for official instructions."

"We can't wait, Dad!" Tom protested. "If there's even a slim chance of rescuing our men, it's our duty to act now! Maybe we can even find some way to stall the Cobra's take-over!"

"Just what are you proposing?"

"To head for Nestria as fast as I can get there," Tom said. "The Challenger's ready for immediate take-off."

There was a moment of taut silence. Tom knew his father was weighing the terrible risks.

"All right, son," he said huskily. "Go ahead, and I'll radio word as soon as I receive instructions from Washington. Good luck!"

The young inventor signed off and plunged into action. He and his three companions sped to the launch area. The Challenger, oddly shaped but imposing, loomed in the glare of floodlights like an enormous gyroscope. Chow and several other crewmen, all volunteers, were aboard.

Before proceeding, Tom mustered his crew on the hangar deck. "I guess you all realize we're taking off on a dangerous mission," he told them. "If my magnetic deflector doesn't work, you know what can happen when we hit the antimatter barrier around Nestria. If we get through safely, there's still the Black Cobra and his spaceship to contend with. Would anyone like to back out?"

The men stood facing him calmly. None spoke or stepped forward.

"Quit wasting our time, skipper," Bud wisecracked. "Let's get this crate in the air!"

Tom grinned. "Okay. Man your stations."

Minutes later, the Challenger was soaring aloft into the night sky. The earth dwindled rapidly under the surging thrust of the repelatrons. Soon the astronauts were entering the fringes of space. The blue-black darkness deepened, rendering even more brilliant the myriad stars dotting the void.

Tom and his companions said little. Each was taken up with his own thoughts as the ship raced outward. Its home planet was now a huge globe with a tapestry of oceans and continents dimly illuminated by moonglow.

The space outpost reported silence from Nestria. But later the Challenger's radioman switched through a call from Enterprises.

"It's your Dad, skipper," he informed Tom.

Tom asked eagerly for news from Washington.

"The Chiefs of Staff have vetoed any immediate missile attack," Mr. Swift said. "Partly they're afraid of wiping out our own men-if they are still alive. There's also danger of triggering a full-scale earth war if our action were misinterpreted by any foreign power."

"I can see their point," Tom admitted.

"They feel we must have more information about the situation on Nestria," Mr. Swift went on.

"Meantime, they're giving you a free hand."

"Suppose things are bad?" Tom asked.

"In that case, you're free to take any action you wish. Our armed forces will back you to the full."

Tom's pulse quickened as he realized the awesome responsibility he was facing. "Okay, Dad. We'll do our best."

"I'm sure of that, son."

Everyone in the flight compartment had been listening to Mr. Swift's voice coming over the loudspeaker. When he signed off, Bud burst out, "If only the Challenger were armed! Boy, how I'd love to give that Cobra gang a dose of its own medicine! What are we going to do, Tom, if we run into a head-on scrap?"

"We'll have to avoid that any way we can," Tom said grimly. "Fellows, we'll play it by ear and try to outwit them. Our first worry is to get through the antimatter barrier."

The ship raced onward toward the asteroid. Tom checked the range dial constantly as they neared the danger zone. Presently Bud saw him switch on the magnetic deflector. A faint high-pitched hum could be heard in the cabin above the regular sound of the repelatron generators.

Bud threw a strained glance at the young inventor. "Are we hitting the antimatter barrier?"

Tom shook his head. "Not yet. About another minute and a half."

The others in the flight compartment gathered about the pilot and copilot. Just below the level of the cabin's view panes, the great silver arrow of Tom's magnetic deflector could be seen thrusting outward from the ship's hull.

Would it enable them to pierce the barrier safely?

"B-b-brand my boot heels," Chow stuttered, "I just hope that thingamajig works right!"

"If not," Arv joked feebly, "we'll be fried crisper than one of your corn fritters!"

The tension became almost unbearable as the seconds ticked by. At last they heard Tom give a slow sigh of relief.

"Okay-at ease, fellows," he told them. "We seem to be getting through in one piece."

Chow let out a joyful whoop while the others congratulated Tom. The barrier breakthrough seemed to fill them all with fresh spirit.

"No matter what happens now, the Cobra can't hold Nestria," Hank pointed out. "If the Challenger can get through with Tom's magnetic deflector, he's wide open to a missile counterpunch!"

Nevertheless, before such a counterattack could be launched, the fate of the American base personnel would have to be ascertained. Tom wondered grimly if any were still alive. For that matter, would he and his own crew ever return safely to their homes and families?

Clenching his teeth, Tom tried to concentrate on the immediate dangers of landing. Nestria was looming ahead now, growing larger by the moment through the pilot's window.

They were approaching the night side of the tiny asteroid, but its crags and craters were dimly visible by

earthshine. A tiny spot of light near the equator marked the American base.

Tom swiveled the repelatrons to brake the ship's speed, then gave the order to put out all lights. In a moment the cabin was illuminated only by the ghostly glow from the instrument panels.

"Think they'll spot us?" Arv muttered tensely.

"Depends on how sharp a lookout they're keeping," Tom replied. "I think we have a fair chance to land unnoticed. With our sheathing, we won't show up on radar and they don't expect anyone to get past the barrier."

Tom decided that an orbital approach, which would carry them around the day side of the asteroid, might be too risky. He therefore made a slow vertical descent. Anxious minutes dragged by as they watched for any sign of detection or attack. None came. At last the Challenger landed gently in a barren secluded valley at a safe distance from the base.

"So far, so good," Bud murmured. "What now, Tom?"

"The only way to find out the situation is to scout the base up close," Tom replied. "Want to tag along?"

"You won't get away without me, pal!"

Both Hank and Arv protested that they should be the ones to undertake the dangerous mission. But Tom persuaded them to remain and guard the ship with the other crewmen. When Chow begged to accompany the boys, Tom relented.

"Okay, old-timer," Tom conceded with an affectionate grin. "We'll make it a threesome."

The only defensive weapon available was a small hand-model repelatron. Taking this along, Tom emerged through the ship's air lock with his two companions and headed off into the darkness.

Half an hour of rugged trekking brought them in sight of the base. Its barracks and workshops were ringed with floodlights. The three reconnoiterers dropped down and crawled as close as they dared to the circle of light.

"Consarned, low-down space rustlers!" Chow muttered under his breath.

"They sure didn't drop in on a friendly visit!" Bud whispered.

The Black Cobra's pirate force had taken over the base completely. Tough-looking sentries in the uniform of the Cobra's elite guard were posted at intervals, armed with tommy guns. A construction crew was already at work on missile and gun emplacements. From the launch and landing area on the opposite side of the base, the enemy spaceship protruded into view above the buildings.

"Looks as though we have a real job on our hands," Tom murmured. "How can the Challenger crew possibly cope with such a force?"

"Listen!" Bud whispered suddenly. "What about knocking out the atmosphere machines?"

There was one at each pole of the asteroid to provide Nestria with a breathable atmosphere. If Tom and his companions returned to the Challenger and destroyed the machines from their spaceship, the Cobra's

men would be deprived of air and have to withdraw!

It was a tempting idea, but Tom shook his head reluctantly. "Too inhuman, Bud. Our own crewmen on the base might die, unless the Cobra took them aboard in time-and I doubt if he'd be that merciful. He'd probably lose half his own men in the panic to take off."

"You reckon any o' our boys are still alive, boss?" Chow asked.

"I sure hope so. The Cobra will want to get information about the scientific setup here on Nestria. It could save him time, not having to figure out how the atmosphere machines and the radio generators work. He might even think he could brainwash them into lying about his taking over Nestria."

The trio had been whispering. Yet, in the night stillness, the sound must have carried across the stretch of open ground toward the base.

Suddenly Tom realized the nearest sentry was peering in their direction! An instant later the man gave a shout of alarm and raised his tommy gun!

## **CHAPTER XVIII**

## FLIGHT FOR LIFE

TOM had whipped his repelatron into position at the first hint of danger. He triggered it before the sentry could fire.

Just as the man started forward, the blast of the repulsion ray jolted him like a blow from an unseen fist. He reeled backward, lost his balance, and crashed heavily to the ground, the gun flying from his hand.

"He walked right into that one!" Bud chuckled gleefully. "It will hold him for several seconds."

"Get going!" Tom urged. "I can't wait to do that again." In a moment the three had scrambled to their feet and were running for their lives.

Meanwhile, other sentries were rushing from their posts in response to their comrade's alarm. Tom glanced back. The guard who had shouted the alarm was bellowing and gesturing in their direction.

After that, there was no time to look. The covering darkness was shattered and rent by a blazing hail of bullets as the tommy gunners charged in pursuit.

Fortunately, the range was too great for their fire to be effective. But the three Americans dared not slacken their pace for an instant! Even roly-poly Chow was charging forward at mustang speed, his bowlegs pumping like pistons!

Tom was furious at his own carelessness in being detected. With the Cobra alerted to their presence near the base, and all the man's scientific facilities deployed against them, it might be impossible to evade

capture. Worse yet, he would guess that the Challenger had landed on Nestria. That, too, might be seized by the space pirates before it could take off!

"Wh-where to, boss?" Chow gasped as he ran. "We sure don't want to lead 'em back to the ship!"

Tom agreed. "That way!" He pointed to some jagged rock walls looming on their right.

"Craters, aren't they?" Bud asked.

"Yes."

Tom was familiar with the formation from previous trips. The two small but high-rimmed craters lay not far from the base. Their sloping outer walls closely adjoined each other, forming a tortuous passage which was strewn with boulders and rocky debris.

Tom risked another glimpse over his shoulder. "We're outdistancing them, I think!"

The pursuers, firing sporadically and silhouetted against the glare from the camp, seemed to be wavering as if uncertain of their quarry's whereabouts.

Heartened, Tom urged his comrades to greater •peed. A little farther and they would be within the enveloping inky shadows of the crater walls. The rocky passageway would offer a thousand •pots of concealment.

As they reached the craters, Chow tripped and went sprawling on his face! The boys skidded and stumbled to a halt, then wheeled around to assist their companion.

"Chow! Are you okay?" Tom asked in concern.

"Sure! I'm fine, boss!"

But as the boys helped the cook to his feet, they heard him stifle a groan of pain. The paunchy Texan was already panting and laboring for breath. Now, as he tried to run, he stumbled and almost fell again.

"Grab his arm, Bud!"

"No use, pards. I've sprained my ankle!"

Fending off their help, Chow begged the boys to go on without him. Tom and Bud ignored his protests. Supporting him with their arms and shoulders, they half carried, half dragged the cow-poke along as they pressed forward.

Chow's weight was a heavy burden, even with the asteroid's lower gravity, but somehow the boys made their way up the slope. Here, among numerous clumps of boulders, they finally found cover.

It was no longer possible to know what their pursuers were doing. The three Americans could only crouch motionless in the darkness.

Presently they caught the scuffing sound of approaching feet, then snatches of voices. The fugitives froze.

After anxious moments Tom ventured to peer from their hiding place. Through the gloom he could

discern two shadowy figures in the distance, half-heartedly searching about. The others were apparently probing deeper into the rock-walled passage.

Ten minutes later the baffled tommy gunners gathered again, engaged in a brief argument, and then headed back to the base. Evidently they had given up, realizing the futility of trying to find the fugitives under such conditions. Tom suspected they were also somewhat unnerved by fear of the mysterious weapon which had felled the sentry who raised the alarm.

Nevertheless, Tom gestured his companions to remain quiet. The guards' return to camp might be a trick to lure them out of hiding. Perhaps one or more of the Cobra's men had remained behind, hoping to take them by surprise.

"Better not wait too long, boss," Chow whispered after a while. "Them hombres may come back with searchlights."

The same thought had occurred to Tom. He decided to try an old trick. Picking up a pebble, he threw it down the slope, a safe distance from their hiding place.

There was no answering burst of gunfire. Tom repeated the trick, throwing in a different direction. The night silence remained unbroken.

"Okay, let's move around a bit, Bud," Tom said at last. "But watch yourself!"

The boys emerged from their hiding place and scouted the area cautiously. Finding no sign of danger, they rejoined Chow.

"How about calling the Challenger on your pencil radio?" Bud suggested.

Tom hesitated, then shook his head. If they could radio the ship to pick them up, Chow would be spared the painful trek back to the landing spot. But the Cobra's operators would surely be listening for messages now, and the Challenger itself might be detected as a result.

"Sorry," Tom said to Chow, "but I think we'd better hoof it. How's your ankle?"

"Lots better," the cook replied stoutly. "Reckon I kin keep up if you take it slow."

Hugging the rim of the crater as long as possible, they started back toward the ship. Chow hobbled along, supported by the two boys. In order to stay out of range of the base, they circled back by a roundabout route. At last, after threading their way through a stretch of badlands, they reached the valley where they had landed.

"The ship's gone!" Bud blurted.

Tom strained his eyes, searching in all directions. "Maybe Hank moved it a bit," he conjectured.

The young inventor clambered up a rocky escarpment where the dim earthshine would give him a better view of the valley floor. But the huge outline of the Challenger was nowhere in view. With a sinking heart, Tom returned to his two friends.

"Think it's been captured?" Bud asked.

"Maybe. Let's face it, Bud. The Cobra's not going to sit tight, now that he knows we've landed on Nestria," Tom said.

The black spaceship or some auxiliary craft, Tom reasoned, might have taken off for an immediate reconnaissance when the intruders were discovered. If so, the Challenger might have been sighted and taken by surprise.

"Dad-ratted skull an' crossboners!" Chow fumed. "They'll prob'ly be out lookin' fer us again, too, come daylight!"

"If not before," Tom agreed. Another alarming thought struck him. If the enemy had captured the Challenger, it might occur to them that the fugitives would return to this spot.

"We'd better clear out of here pronto, and find some place to hide," Tom told the others.

"Where?" Bud demanded.

Tom snapped his fingers. "What about that 'mine' the space people mentioned?"

"Swell idea," Bud agreed, "if we can find it in the dark."

"We can try," Tom said.

He examined Chow's ankle by the light of his pocket flashlight. The ankle was badly swollen, but after Tom had bandaged it with the cook's huge bandanna, Chow felt he could go on.

Another arduous trek began, slowed by the Texan's hobbling pace. Their destination was a range of miniature Alplike crags and mountains west of the base. As they approached a rock ledge rising steeply on their right, Tom pointed to it.

"There's the trail that leads to the energizer chamber. From here on, we just follow the foot of this cliff."

Bud exclaimed in relief as they finally sighted an opening in the cliff face. "Thank goodness! A place to rest!" He added hopefully, "Maybe food, too, if the space people are right!"

Tom shone his flashlight into the cavernlike recess and they entered cautiously. The next moment all three stiffened in alarm as a voice barked cut of the darkness:

"Get your hands up and don't move!"

CHAPTER XIX

THE COBRA STRIKES!

TOM fought down a wave of despair as he raised his hands. Had they eluded the Cobra only to walk

straight into a trap?

A glare of light was beamed at the prisoners so their captor could scrutinize them. "It's the skipper!"

"And Bud and Chow!"

Joyful voices filled the cavern. Tom whirled as figures crowded out of the gloom.

The Swifts' base crew!

"B-b-brand my star stew!" Chow gabbled.

"Yippee!" Bud cheered.

Tom was shaking a dozen hands at once. "Lee! To think of finding you and the gang here!"

"We knew you'd get to Nestria sooner or later, skipper!" the crew chief responded. "We're safe!"

Tom said soberly, "The truth is, the enemy's in complete control of the asteroid."

He related what had happened since the Challenger had landed on Nestria.

Bud asked, "What about you guys? We thought you were prisoners."

Lee Jarrild shook his head. "We figured it would be smart to pull out before the black ship landed. As it was, half our men were almost disabled by pain and nausea. The enemy must have projected some kind of ray or nerve gas."

"An ultrasonic beam, probably," Tom said.

Jarrild went on, "They were too busy taking over to chase us far. Guess they figured we'd either starve or give up."

"You hombres sure don't look like a bunch o' starvin' critters!" Chow said.

"That's a fact," Tom agreed. "The tip from the space people must have paid off."

Bob Jeffers, one of the crewmen, grinned. "Wait'll you sink your teeth into the stuff we found here. This mine's loaded with it!"

"One square meal and we were back on top of the world!" Jarrild said.

Tom was keenly interested.

Jarrild and the other crewmen led the newcomers deeper into the mine. As light was beamed on the walls, Tom noticed they were streaked with a reddish-orange deposit.

"That's it," Lee said. "You can scoop it out easily."

Passageways branching outward from the central tunnel had been excavated to follow the major veins of the deposit. Tom borrowed a clasp knife from Lee and pried out a handful of the "ore." It was of firm

consistency, but not hard, and could be broken into smaller pieces.

"Try some!" Lee urged.

Tom, Bud, and Chow did so. The food softened when chewed and had a delicious flavor, somewhat resembling beefsteak.

"Brand my barby-cue, that tastes like prime Texas steer!" Chow burst out.

He and the boys were starved after their strenuous hike and ate with gusto. Amazingly, the food seemed to satisfy their thirst, too.

"What a meal!" Tom said, after finishing a final morsel. "I feel like a million!"

Bud chuckled in agreement. "After a feast like that, I'm ready for anything!"

"Same way we felt," Lee said.

"It must be extremely nourishing," Tom mused, "and produce a psychochemical effect."

"Them words is too jaw-crackin' fer me, but it's plumb elegant grub!" Chow agreed. "You know what, Tom? My ankle ain't hurtin'."

The old cowpoke pulled off his boot and unwrapped the bandanna. "I declare! The swellin' has even gone down!"

Tom examined Chow's ankle in amazement. In spite of the painful, arduous trek, the swelling had diminished!

Tom scraped out another piece of the red-orange ore and examined it under his pocket magnifier. It had a definite cellular structure. "Must be organic!" he announced excitedly.

"Meaning what?" Bud asked.

"It was formed from living matter, just like coal or petroleum! Don't you realize what this means!" Tom said excitedly. "Nestria probably came from the asteroid belt between Mars and Jupiter. This bears out the theory that such asteroids are remnants of an exploded planet!"

"How come?" Bud asked with a puzzled look.

"Because Nestria by itself couldn't have supported life. But a planet could! If I'm right, Bud, perhaps other traces of life-even intelligent forms of life-may still exist somewhere on this and the other asteroids!"

Tom's listeners were awed by the thought. "Who worked this mine in the first place?" Bud asked. "The space creatures?"

Tom shrugged. "Maybe. Or maybe they found the workings in this condition when they first landed."

"Wow!" Bud exclaimed. "If the mine was worked before they came, that would prove intelligent creatures must have-"

His remark was cut short by a muted cry of warning from a crewman at the cavern entrance.

"The Cobra's men are coming!"

The words jolted the Americans back to their danger. Tom ordered lights switched off, then they dashed back to the entrance. In the earth-lit darkness men could be seen advancing up the canyon. Although no shots had been fired, there was little doubt but that they were heading straight for the cavern entrance I

"What'll we do, skipper?" Lee asked.

"How far does this tunnel extend?"

"The place is a maze," Lee said. "We've never followed out any of the drifts, let alone the main workings."

Tom made a quick, desperate decision. "Come on! Straight back!" he ordered.

The others obeyed, plunging deeper into the interior of the mine. Some were in favor of fanning out through the labyrinth of drifts in the hope that a few, at least, might avoid capture. But Tom overruled them.

"I believe this is a natural cavern," he explained. "There may be another outlet somewhere."

Using flashlights, they raced on through the winding central chamber. Behind them, they could hear shouts and echoing bursts of tommy guns.

Gradually the cavern passage narrowed, forcing the men into close file. Tom feared it might end in a cul-de-sac. If so, he and his men were trapped!

"Hey! Isn't that fresh air?" Lee exclaimed suddenly.

Tom's heart bounded as the draft struck his face. "We're near an outlet!"

The air became fresher as the passageway slanted upward. Moments later, the men gave sighs of relief. Straight ahead, the passage ended in the open air! Crouching and jostling one another, they squirmed through the aperture.

"Hold it, everybody!" Bud shouted. "We're on a ledge!"

There were gasps of apprehension as the men realized they were on the brink of a sheer dropoff. To their left, however, their flashlights showed that the ledge gradually widened and debouched onto a broad, sloping hillside.

They hurried toward safer ground. But as they reached the hillside, there were moving lights far below. Another enemy search party!

"They've spotted us!" Bud muttered.

Tom whipped out his pencil radio. It was a faint hope, but nothing else remained. "Tom calling Challenger! . . . Tom calling Challenger! . . . Can you read me?"

"We read you, skipper! Keep sending and we'll try to home on your signal!"

Hank's voice! The men broke into whispered cheers.

It was a race with time now. Over and over, Tom repeated the call as he and his friends clambered toward higher ground. Suddenly Hank's voice broke in again:

"Okay. Relax! We have you spotted!"

By this time the attackers were closing on them from two directions. But seconds later the Challenger came zooming out of the night sky. With blasts from its repelatrons, it scattered the enemy gunners and sent them tumbling down the slope!

Then the ship hovered low and dropped a ladder. The Americans scrambled to the landing platform and crowded through the air lock.

Tom took over the controls when he reached the flight compartment. Soon the Challenger was streaking away from the hillside.

"Out of one danger and into another!" the young inventor muttered grimly. He pointed off to starboard.

Over the horizon of the asteroid, graying now with the first hint of dawn, a black spaceship was soaring to intercept them.

Bursts of flame spouted from its missile tubes as it fired at the Challenger!

## **CHAPTER XX**

## A FIERY VICTORY

THE missiles roared toward the Challenger, tracing a wake of fire across the sky.

Tom reacted automatically. With split-second precision his fingers worked the controls and sent the Challenger veering to safety-in the nick of time! The missiles shrieked past as the ship rebounded from the searing turbulence of their wash.

"Look out!" Arv yelled. "Here comes another!"

Tom saw it almost too late. Swiveling the forward repelatrons into position, he triggered off their combined repulsion beams at full power.

The oncoming missile seemed to slow its course as if by magic-then suddenly nose-dived toward the asteroid as it lost all momentum!

"Whew!" Bud gasped weakly. "Thank goodness none of those babies detonated!"

"They couldn't, except by direct hit," Hank reminded him. "Don't forget, our good old Tomasite insulation shields us from the missiles' sensors."

Evidently the black spaceship had expended its ammunition. Nevertheless, Tom was taking no chances. He gunned the Challenger to top speed on an outward course from the asteroid.

Meanwhile, Arv was focusing the space prober to keep watch on the enemy's movements. "He's right on our tail, skipper!"

With its smooth, constant acceleration, the Challenger was outdistancing its pursuer. Yet the black spaceship came on.

"I'll bet they're nursing one last missile for a sneak punch!" Hank muttered.

"The picture's fading on the prober!" Arv exclaimed suddenly. "Now we've lost it!"

At almost the same moment Tom veered the ship to port-steering it in a wide, circling turn that brought the enemy back into view through their cabin window. The others were startled by the maneuver.

"What's the idea, boss?" Chow asked excitedly.

Suddenly a blinding explosion filled the flight compartment with a glare of light!

"The Cobra's ship has disintegrated!" Bud cried out.

Tom and his companions shielded their eyes from the dazzling brilliance. Fortunately, the heavy, tinted quartz-glass view pane provided protection.

After a while the brilliance faded enough for a direct view of the still-incandescent mass. Glowing shards of wreckage, hurled outward by the explosive reaction, were falling back toward the asteroid in a fiery rain!

"Roarin' rockets!" Ary gasped breathlessly. "What a spectacle!"

The others could only stare in awed silence.

"Did you expect that to happen, skipper?" Hank asked at last.

Tom shrugged. "I thought it might," he admitted in a grim voice. "I figured the Cobra would keep the deadly radiation barrier in position at full intensity to the last moment, hoping to trap us. As it turned out, he waited too long to dispel the barrier-not realizing we had already entered the area of antimatter particles."

"That's why the picture faded, and that's why you turned, eh?" Arv asked.

Tom nodded. "It was pretty awful, but I had to know what happened."

Tom reported the destruction of the Cobra's ship, over the intercom, to the other crewmen aboard. Some responded with cheers at hearing of the final defeat of the enemy, but most of them received the news with awe-struck murmurs.

Meanwhile, the young inventor was heading back to the asteroid for a mop-up of the Cobra's remaining forces. To take his shipmates' minds off what had happened, Tom asked Hank about the Challenger's movements after he and Bud and Chow had gone to reconnoiter the base.

Hank explained that a small, scouting enemy helicopter had sighted the spaceship, so he had been forced to take off before an attack followed. "We kept on the move, looking for you fellows," he added.

Tom chuckled dryly. "We were on the dodge, ourselves, most of the time."

As he swooped down over the asteroid, Tom flew first to Nestria's north pole, then its south pole, to check on the atmosphere machines. No enemy men could be seen guarding either one. Tom doubted that the Cobra forces had any idea how the machines worked.

Next, he ordered a loudspeaker rigged on the Challenger's landing platform. Then he proceeded to orbit Nestria slowly while blaring out orders to the enemy survivors. Tom spoke in English, feeling that many of them would understand this language and spread the news to the others.

"This is Tom Swift speaking to the Cobra's men!" his voice boomed out. "No doubt you saw the explosion a short time ago. That was your spaceship disintegrating. You are now helplessly marooned here unless you give yourselves up. Report to the base at once, throw down your weapons, and surrender! Otherwise, we will destroy the atmosphere machines with blasts from our repelatrons and you will all die in the resulting vacuum!"

In less than an hour the surviving space pirates had deposited their weapons in a pile in front of base headquarters, and were standing with their hands on top of their heads, in response to Tom's orders.

Hank, Bud, and several other crewmen disembarked and took charge of the weapons, then tied up the prisoners' hands and marched them aboard. None showed any sign of fight. It was plain from the expressions on their faces that they had lost heart after witnessing their comrades' fate. They were just men terrified for their own future safety on the bleak little asteroid so far from earth.

Tom questioned several of them, who spoke English, about the Black Cobra's movements. Most were sure that he had taken off aboard the black spaceship and had been destroyed. Others were not certain that he had headed the raiding party. But on one point all agreed-the Cobra's project had been financed and assisted by certain countries hostile to the United States.

"What'll happen to these jokers?" Bud asked.

"Plenty, I hope," said Tom. "Anyway, we'll turn them over to the FBI."

After radioing a full report to earth, Tom left the ship to collect samples of the strange mineral food from the asteroid mine, and to deal with the secret device by which the Black Cobra had controlled the antimatter barrier. Two of the prisoners had told Tom where it was located. When he found it, Tom switched the device to full power long enough for the deadly antimatter particles to be permanently dissipated into outer space.

At last, after leaving behind a volunteer crew to maintain American jurisdiction over Nestria, the Challenger headed earthward.

When the ship landed on Fearing Island, Tom groaned at the sight that met his eyes on the launch area.

A brass band, government officials, including several top officers of the Army, Navy, and Air Force, and a battery of TV cameras and newsmen were arrayed to greet him.

"No use beefing, skipper," Arv said with a chuckle. "You're trapped!"

Tom was forced to make a speech relating what had happened on Nestria. Then a personal representative of the President stepped forward to pin a decoration on the young inventor "for distinguished services to his country and the cause of freedom."

Finally the heroes were reluctantly yielded to their families and friends. Mrs. Swift, Sandy, Phyl, and Mrs. Newton each greeted the boys with a kiss, while Mr. Swift and "Uncle Ned" Newton shook their hands warmly. Harlan Ames added his congratulations.

On the flight back to Shopton, Ames reported that the Cobra's stronghold in Patagonia had been seized and disarmed by the Argentine government. Among his captured staff were the renegade scientists, Fernand Zerbski and Achmet Rahj. Information gleaned from the fortress had been passed on to the United States. As a result, the Cobra's agents here had been rounded up.

"Including the man who sabotaged your plane in Washington," Ames said, "and those two phony hospital guards."

"By the way, son," Tom Sr. said, "you'll be glad to learn that John Tsu is recovering."

Ames added, "The CIA has checked him out pretty thoroughly. They won't tell us much, but apparently Tsu belongs to a refugee resistance group working against one of the dictatorships. He infiltrated the Black Cobra's setup because the Cobra was one of the people who helped bring his own country's dictator to power. Tsu's group is prodemocratic and realized that the Cobra was a threat to the whole free world."

"He sure was-until genius boy pulled his fangs I" said Bud.

Tom stopped off with Bud at the Shopton Hospital. Tsu, who was sitting up in bed and smiling, greeted the boys with hearty handshakes.

"So happy to hear of your success on Nestrial"

"And we're happy that you're getting well," Tom said simply. "Thanks for risking your life to warn me. I hope," he added with a smile, "that you'll also pass on our thanks to your friend at the Trans-Pacific Import Company."

"Alas, I have never heard of such a company. In any case, I must leave for Hong Kong as soon as I am out of the hospital. However"-Tsu's black eyes twinkled merrily-"perhaps I shall find some way to convey your message."

"I'll bet he will!" Bud remarked with a chuckle as he and Tom left the hospital. "What's next on the program, genius boy?"

Tom yawned and stretched wearily before climbing into Bud's convertible. "Well, I could do with about twenty-four hours of sleep right now, and after that I'm eager to analyze the mineral food we brought back from Nestria."

"Then what?"

Tom grinned, not dreaming that his next adventure would take place in the jungles of Africa, building his Repelatron Skyway.

Bud yawned too. "This hopping around in space certainly keeps a guy wondering what time of day or night it is. I wish the old sun would stand still for about a week till I catch up with myself!"

THE END

TOM SWIFT AND THE ASTEROID PIRATES

BY VICTOR APPLETON II

No. 21 in the Tom Swift Jr. series.