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Sabotage in Space

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SABOTAGE IN SPACE

THE TOM CORBETT SPACE CADET STORIES

By Carey Rockwell

STAND BY FOR MARS!

DANGER IN DEEP SPACE

ON THE TRAIL OF THE SPACE PIRATES

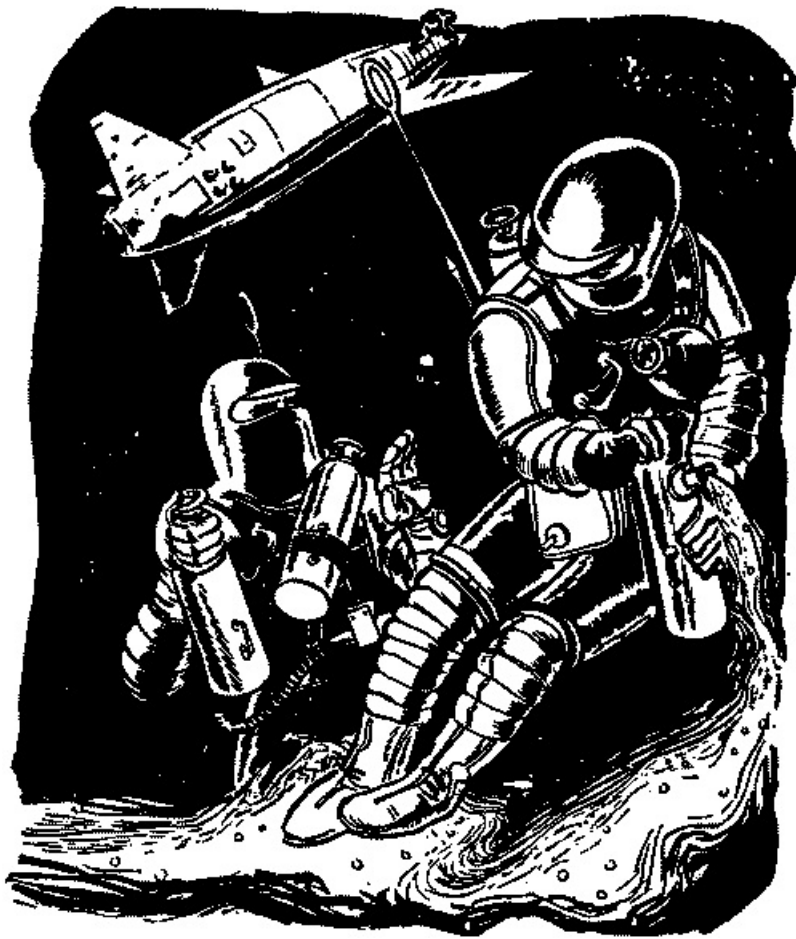
THE SPACE PIONEERS

THE REVOLT ON VENUS

TREACHERY IN OUTER SPACE

SABOTAGE IN SPACE

THE ROBOT ROCKET



A TOM CORBETT Space Cadet Adventure

SABOTAGE IN SPACE

By CAREY ROCKWELL

WILLY LEY *Technical Adviser*

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SABOTAGE IN SPACE

CHAPTER 1

"Bong-g-g! Bong-g-g! Bong-g-g!—"

With a hollow booming sound reminiscent of old eighteenth-and nineteenth-century clock towers, the electronic time tone rang out from the Tower of Galileo, chiming the hour of nine. As the notes reverberated over the vast expanse of Space Academy, U.S.A., the lights in the windows of the cadet dormitories began to wink out and the slidewalks that crisscrossed the campus, connecting the various buildings, rumbled to a halt. When the last mournful note had rolled away to die in the distant hills, the school was dark and still. The only movement to be seen was the slow pacing of the cadet watch officers, patrolling their beats; the only sound, the measured clicking of their boots on the metal strips of the slidewalks.

On the north side of the quadrangle near the Tower, a young watch officer paused in front of one of the dormitories and scanned the darkened windows of the durasteel and crystal building. Satisfied that all was in order, he continued on his lonely way. A moment later a shadowy figure rose out of the bushes opposite the dormitory entrance and stepped forward quickly and cautiously. Pausing on the slidewalk to stare after the disappearing watch officer, the figure was illuminated by the dim light from the entrance hall. He was a young man wearing the royal-blue uniform of a Space Cadet. Tall and wiry, with square features topped by a shock of close-cropped blond hair, he stood poised on the balls of his feet, ready to move quickly should another watch officer appear.

After a quick glance at his wrist chronometer, the young cadet darted across the slidewalk toward the transparent crystal portal of the dormitory. Hesitating only long enough to make certain that the inner hallway was clear, he slid the portal open, ducked inside, and sprinted down the hall toward a large black panel on the wall near the foot of the slidestairs. On the panel, in five long columns, were the name plates of every cadet quartered in the dormitory and beside each plate were two words, IN and OUT, with a small tab that fitted over one of the words.

Out of the one hundred and fifty cadets in the dormitory, one hundred and forty-nine were marked IN. The slender, blond-haired cadet quickly made it unanimous, reaching up to the tab next to the name of Roger Manning and sliding it over to cover the word OUT. With a last final look around, he raced up the slidestairs, smiling in secret triumph.

In Room 512 on the fifth floor of the dormitory, Tom Corbett and Astro, the two other cadets who, with Roger Manning, made up the famed *Polaris* unit of the Space Cadet Corps, were deep in their studies. Though the lights-out order had been given over the dormitory loud-speaker system, the desk lamp burned brightly and there was a blanket thrown over the window. The boys of the *Polaris* unit weren't alone in their disobedience. All over the dormitory, lights were on and cadets were studying secretly. But they all felt fairly safe, for the cadet watch officers on each floor were anxious to study themselves and turned a blind eye. Even the Solar Guard officer of the day, in charge of the entire dormitory, was sympathetic to their efforts and made a great deal of unnecessary noise while on his evening rounds.

His brown curly hair falling over his forehead, Tom Corbett frowned in concentration as he kept the earphones of his study machine clamped tightly to his ears and listened to a recorded lecture on astrophysics as it unreeled from the spinning study spool. As command cadet of the *Polaris* unit, Tom was required to know more than merely his particular duty as pilot of a rocket ship. He had to be familiar with every phase of space travel, with a working knowledge of the duties of all his unit mates.

Astro, the power-deck officer of the unit, paced back and forth between the bunks like a huge, hulking bear, muttering to himself as he tried to memorize the table of reaction times for rocket motors. Though the huge Venusian cadet was a genius at all mechanical tasks, and able to work with tools the way a surgeon worked with instruments, he had great difficulty in learning the theories and scientific reasons for all the things he did instinctively. Suddenly Astro stopped, looked at his chronometer, then turned to Tom.

"Hey, Tom!" he called. "Where's that jerk, Manning?"

"Huh?" replied Tom, lifting one of the earphones from his ears. "What did you say, Astro?"

"Where's Manning?" reiterated Astro. "It's ten minutes after lights out."

"He was going to get those study spools for us, wasn't he?" mused Tom.

"He should've been back by now," grunted the Venusian. "The library closed an hour ago. Besides, he couldn't have gotten those spools. Every other cadet in the Academy is after them."

"Well, he's a pretty resourceful joker," sighed Tom, turning back to the study machine. "When he goes after something, he gets it by hook or crook."

"It's the crook part that bothers me," grumbled Astro. "Besides, if the O.D. catches him out of quarters, he'll be doing his studying while he's polishing up the mess hall."

Suddenly the door to the room burst open and slammed closed. Tom and Astro whirled to see their missing unit mate lounging against the doorframe, grinning broadly.

"Roger!"

"Where've you been, blast you?"

Tom and Astro both jumped forward and spoke at the same time. The blond-haired cadet merely looked at them lazily and then sauntered forward, pulling six small study spools from his pockets.

"You wanted these study spools, didn't you?" he drawled, giving his unit mates three apiece. "Be my guest and study like mad."

Tom and Astro quickly read the titles of the spools and then looked at Roger in amazement. They were the ones the unit needed for their end-term exams, the ones all the cadets needed.

"Roger," Tom demanded, "how did you get these spools? The library was out of them this afternoon. Did you take them from another unit's quarters?"

"I did not!" said Roger stoutly. "And I don't like your insinuations that I would." He grinned. "Relax! We have them and we can breeze through them in the morning and have them back where they belong by noon tomorrow."

"Where they belong!" Tom exclaimed. "Then you have no right to them."

"Listen, hot-shot!" growled Astro. "I want to know where you got these spools and how."

"Well, if that isn't gratitude for you!" muttered Roger. "I go out and risk my neck for my dear beloved unit mates and they stand around arguing instead of buckling down to study."

"This is no joke, Roger," said Tom seriously. "Now for the last time, will you tell us how you got them?"

Roger thought a moment and then shrugged his shoulders. "All right," he said finally. "When I went down to the library to see if it was our turn for them yet, I found that we were still twenty-seventh in line."

"Twenty-seventh?" gasped Astro.

"That's right, spaceboy!" snorted Roger. "So I tried to con that little space doll of a librarian into moving our names up on the list, but just then an Earthworm cadet came in with an order from Tony Richards of the *Capella* unit, an order for the very spools we needed."

"You mean, you took them from an Earthworm?" queried Tom.

"Well, I didn't take them exactly," replied Roger. "I waited for him out on the quadrangle and I told him he was wanted in the cadet dispatcher's office right away and that I would take the spools on up to Tony."

"And you brought them here!" howled Astro.

"Yup." Roger grinned. "Do you think that squirt will know who I am? Not in a million years. And by the time Tony and the others do find out who has them, we'll be finished. Get it?"

"I get it, all right, you crummy little chiseler," growled Astro. "Tom, we gotta give these back to Tony."

Tom nodded. "You're right," he said.

"Now wait a minute!" said Roger angrily. "I went to a lot of trouble to get these things for you—"

"Look, Roger," Tom interrupted, "I would rather have one night with those spools than a two-week leave in Atom City right now. But the *Capella* unit is having a tough time making the Spring passing lists. They need those spools more than we do."

"Yeah," said Astro. "We could probably take the tests now and pass, but they really have to study. I'm for getting them back to the *Capella* unit right now. How about you, Tom?"

The young cadet nodded and turned to Roger who stood there, frowning. "Roger," said Tom, "both Astro and I really appreciate it. But you wouldn't want the *Capella* unit to flunk out of the Academy, would you?"

Roger gnawed at his thumbnail and then looked at his two unit mates sheepishly. "You're right, fellas," he said. "It was

kind of a dirty trick. Give me the spools. I'll take them back to Tony right now."

"Wait a minute!" exclaimed Astro. "It's after hours. We're not supposed to be out of the dorm."

For a second the three boys looked at each other hesitantly. Then, as though they had telepathically conveyed their individual decisions to each other, they turned toward the door. Tom opened it and stepped out into the hall cautiously, then turned back and nodded. Roger and Astro followed him quickly.

As Roger closed the door behind him, he murmured, "There's no reason for all of us to go. I was the one who took the spools, so I should bring them back. Why should you two guys risk getting caught?"

Astro punched him in the shoulder fondly. "We always work together, don't we?" he declared. "If one's gonna get into trouble, we all should."

"Let's go," urged Tom in a sharp whisper, and they all raced silently toward the slidestairs.

Seconds later, the three cadets of the *Polaris* unit were down in the main hallway of the dormitory building, tiptoeing toward the front portal. Pausing only to look into the O.D.'s office to make sure the officer wouldn't spot them, they reached the portal and ducked out. Pausing again to scan the immediate area for any watch officers, they darted across the slidewalk and into the shadows of the shrubbery.

Quickly and soundlessly, they raced across the green lawn of the quadrangle toward the dormitory where the *Capella* unit was quartered. Once they sprawled headlong on the turf and lay still as a watch officer suddenly appeared out of the darkness at the base of the Tower of Galileo. But he walked past without seeing them and they continued on across the quadrangle.

Reaching another clump of shrubbery right opposite the *Capella* unit's dormitory, the boys stopped and discussed their final move.

"This is getting ridiculous," whispered Roger. "I shouldn't have let you two come with me. But I'm going the rest of the way myself."

"We came this far, Roger," asserted Tom. "We'll go the rest of the way and help you explain."

"And you've got a space-blasting lot to explain."

The three cadets whirled as a familiar voice snarled out of the darkness behind them. They saw three figures, all in cadet uniforms, wearing the insigne of the *Capella* unit. In the forefront was Tony Richards scowling angrily.

"Tony!" gasped Tom. "What are you doing out here?"

"We were on our way over to your dorm, Corbett," growled Tony Richards. "We saw you three sneaking across the quadrangle."

"Coming to pay us a visit, fellas?" asked Roger blandly.

"You know blasted well why we were coming," snapped McAvoy, the second member of the *Capella* crew.

Davison, the third member of the unit, stepped forward. "Give us back our study spools," he demanded.

"Take it easy," said Tom in a calm voice. "We were bringing them back to you."

"I'll bet," snapped McAvoy.

"Relax," growled Astro. "Tom said we were returning them. We admit it was a dirty trick, but you haven't lost much time. Half an hour maybe."

"Don't try to cover for Manning, Astro," said Tony heatedly. "It's a shame you two guys are stuck with a bad rocket like Manning in your unit."

"Bad rocket!" exclaimed Roger.

"Now, wait a minute, Tony," Tom said, advancing toward the broad-shouldered cadet. "We are returning the spools, and we apologize for yanking them from the Earthworm. But that doesn't mean we'll listen to that kind of talk about Roger."

"He stole them, didn't he?" retorted Davison.

Roger stepped forward. "Davy, my boy," he said in a low controlled tone, "I don't like that remark. I've got a notion to make you eat that word."

"I don't think you can, Manning," replied the angry cadet.

Tom stepped between them quickly. "Listen, fellows, we don't want any trouble. Here are the spools." He held them out.

"That's what I mean, Corbett," said McAvoy sarcastically. "Manning gets you in trouble and then you and the big boy have to bail him out."

"We've apologized," retorted Astro angrily. "You're getting the spools back. So no more cracks about Roger."

"I can take care of myself, Astro," said Roger.

"Here, take the spools and get back to your dorm," growled Tom. He handed the pile of spools over, but as Tony extended his hands, one of the spools dropped to the grass. No one made a move to pick it up.

"There are the spools," said Tom icily. "Now beat it."

"Let's go," said Davison, leaning over to pick up the spool. "The air is beginning to stink around here."

Red-faced, Roger stepped forward and put his foot on the spool just as Davison reached for it. "That's enough, Davison," he snarled.

"Why, you dirty space crawler—" Davison straightened up and swung wildly. Roger ducked the blow easily, then spun the heavy-set cadet around and pushed him back into the bushes.

Tony Richards stepped forward and Astro turned to him threateningly, but Tom quickly shoved them aside and faced Richards.

"Listen, Tony," he said. "We're all out after hours, and if a watch officer spots us, we've had it. We don't want any trouble." He glanced at Davison, who was being restrained by McAvoy. "We apologize. Now get out of here before we're all logged."

Richards nodded and started to turn to his unit mates when suddenly Davison jerked free and lunged at Roger. The blond-haired cadet was not caught unawares. He stepped aside and threw a quick jolting right straight to the *Capella* cadet's jaw. Davison staggered back and fell to the ground. He shook his head, jumped to his feet again, and charged back with a roar.

Both Tom and Astro and Tony Richards and McAvoy grabbed at their respective unit mates and tried to restrain them. In the struggle to keep Roger and Davison apart, Astro accidentally pushed Richards to one side.

"What in blazes—!" yelled Richards. He suddenly released Davison and gave Astro a shove that sent the big cadet sprawling. And then, without warning, McAvoy swung at Tom. The curly-haired cadet saw the blow coming a fraction of a second too late and caught it on the side of his head. He fell back into the bushes.

Roger yelled in anger at the sudden attack, and grabbing Davison by the front of his tunic, slammed a hard right into the cadet's stomach. Richards grabbed Roger, holding him around the head and neck, as McAvoy swung at him viciously. Seeing their unit mate pommeeled, Tom and Astro charged back and the battle was on. The two units forgot about the watch officers and the strong possibility of being caught and slugged it out in the darkness of the quadrangle. The fight seemed to be the climax of a long-standing feud. The *Polaris* crew had first come to grips with Richards and his unit mates when they were assigned to the old rocket cruiser *Arcturus*. When the ship was scrapped, the cadets were transferred to the *Capella*, but the rivalry continued stronger than before. Time and time again, the two crack units had competed for hours on the athletic fields, in space flight tests, and in the classroom. The *Polaris* unit had constantly come out ahead, often by no more than a fraction of points, but their superiority was clear, and the *Capella* unit could not repress its resentment and jealousy.

Tony Richards and Tom had squared off and were boxing with lightninglike thrusts of their fists, each waiting for an opening. In back of them, Roger and Davison were simply hammering away at each other's mid-sections, and Astro and McAvoy were rolling around on the ground like bears, growling and tugging. It was brute strength against brute strength.

Tom danced away from Richards' rapierlike left, weaved low, and shot a hard right to his opponent's stomach that left him gasping. Richards doubled over and stepped in to bring up a solid right, then hesitated. Richards was through. The blow to the mid-section had taken all the fight out of him. Tom refused to pursue his advantage while the other could not fight back. His anger cooling rapidly, Tom realized that the whole fight was nothing more than a misunderstanding. As Richards sank to the grass helpless and gasping for breath, Tom turned to break up the other two fights. But Roger was just finishing his battle with Davison. Feinting to the mid-section and pulling Davison's guard down, Roger hooked his left cleanly to the jaw, following immediately with a haymaker right. Davison dropped to the turf, out cold.

Meanwhile, Astro had rolled on top of the last cadet of the *Capella* unit, and with his great strength, clamped McAvoy's arms to his side. Face to face, the two cadets glared at each other. The muscles tightened in Astro's arms, and beads of sweat popped out on his face.

"Give up!" demanded the Venusian, tightening his grip.



Tom shot a hard right to his opponent's stomach

Slowly McAvoy sagged under the pressure Astro was applying and his face began to redden.

"He'll break his back," whispered Roger to Tom.

Tom nodded and stepped forward. "Let him go, Astro. He's finished."

Astro did not let go. His face was white with anger. McAvoy bent further back. "Give up," demanded Astro.

"Grab him," said Tom to Roger. "Get him off Mac before he breaks his back."

Tom and Roger jumped to Astro's side and each grabbed one of the powerful arms encircling McAvoy. It took all their strength to break the viselike hold the giant Venusian had on the other cadet, but slowly they pulled the muscular arms back and McAvoy slumped to the grass.

The three victorious cadets paused and looked down at the beaten *Capella* crew, then looked at each other.

"Well," sighed Roger, "I suppose that the least we can do now is get them back to their dorm."

Tom and Astro nodded. As the three boys started forward they were stopped by a voice behind them—a voice that roared like an atomic blast.

"Stand to!"

Whirling around in surprise for the second time within a space of ten minutes, Tom, Astro, and Roger saw a menacing sight standing behind them, his balled fists jammed on his hips, his booted legs widespread, and his massive head thrust forward. It was Major Lou Connel, more familiarly known as "Blast-off" Connel, a Senior Line Officer of the Solar Guard and the sternest disciplinarian in the whole Academy. Behind him stood a short, thin man, whom none of the boys recognized.

Connel stepped forward slowly and menacingly, glaring at the three boys.

"Out a little late, aren't you, boys?" he asked with a mildness that sent a chill down their spines.

"Y-yes sir," replied Tom, a slight tremor in his voice.

"On official business, I presume?" The major's voice was still as smooth as silk.

Tom gulped and then shook his head. "N-no, sir," he quavered.

Connel's eyes widened in mock horror. "Why, Corbett," he exclaimed, "didn't anyone ever tell you the rules of Space Academy? Or perhaps you didn't know what time it was?"

Tom bit his lip. He knew that he and his unit mates were caught in a hopeless trap and that Connel was simply baiting them. "I knew what time it was, sir," he said. "We're out after hours."

Suddenly there was a movement in the brush behind Tom as McAvoy stumbled to his feet. Richards also sat up groggily.

"Major!" It was the man behind Connel who spoke. "Who are they?"

As though in answer, Davison stood up too and the three members of the *Capella* unit were suddenly and horribly aware of the presence of Connel. They immediately braced themselves, their faces white with sudden fear.

"So!" Now the major's voice began to roar again. "Fighting, eh? Well, now we really have something here."

"Sir," began Richards tremulously, "if you'll let us explain—"

"I'll let you explain all right," thundered Connel. "Out after hours, fighting, you'll have a great time explaining to an inquiry."

"An inquiry!" Tom exclaimed involuntarily.

"Did you expect anything less?" roared Connel. "You are all under arrest and confined to quarters."

The six cadets all trembled but said nothing, standing at rigid attention, eyes straight ahead.

"Return to your quarters immediately."

As one, the cadets wheeled and marched off. Tom, Astro, and Roger walked across the quadrangle back to their dorm, and the *Capella* unit took the slidewalk that led to their quarters. Connel watched them go, a ferocious scowl on his craggy features.

"Little rough on them, weren't you, Major?" asked the man who stood beside the Solar Guard officer.

"Rules are meant to be obeyed, Professor Hemmingwell," retorted Connel stiffly.

"Perhaps you're right," mused the stranger. "But what's this about an inquiry?"

"A trial, Professor. A trial conducted by the cadets themselves to see whether or not the accused should be kicked out of the Academy."

"Kicked out?" exclaimed the professor. "You certainly do believe in discipline."

"These boys are to be Solar Guardsmen," replied Connel shortly. "If they can't obey orders now, they never will."

"Well, it's all very unimportant really, Major," Hemmingwell said with a shrug. "We have many more vital things to think about now than mere cadets. Shall we go? Commander Walters is waiting for us."

As the little man in civilian clothes walked away, Connel stifled a blistering retort. True, his mission here at the Academy was of great importance. But cadets were important too. And he was afraid. The *Polaris* unit was in grave trouble, grave enough to cause expulsion from the Academy.



CHAPTER 2

Space Academy, U.S.A.!

This was the dream and goal of every boy in the thrilling year 2354, when mankind had reached out beyond the bounds of Earth and had conquered space, colonizing planets and blazing trails to distant worlds deep in the black void of the outer universe. To support the ever-growing need for trained spacemen to man the rocket ships that linked the planets and distant satellite outposts, the Solar Alliance, the government of the solar system, had erected Space Academy. It was there that the most promising boys were trained to become members of the Solar Guard to patrol the space lanes and keep peace in the universe.

Organized into tight, hard-hitting units of three, the Academy cadets were trained to work together under the most severe conditions. Their waking hours were spent in one of two places; in powerful rocket cruisers, blasting through space on endless training missions, or at the Academy in classrooms and lecture halls, where they studied everything from the theory of space flight to the application of space laws. A very important course of study was the theory of government. For, above all else, the Solar Alliance was a government of the people. And to assure the survival and continuance of that democratic system, the officers of the Solar Guard functioned as the watchdogs of the space democracy, entrusted with the vital mission of making sure the government reflected the will of the people.

As a practical approach to this course, the Academy officials had established a Cadet Council for the settlement of disputes and infractions of rules by the cadets. It was to this cadet governing body that the fight between the *Polaris* and the *Capella* units was referred by Major Connel.

The Academy had buzzed with talk since the fight, and sides were drawn hard and fast. Both units were extremely popular and the arguments raged through the dormitories as to which unit was at fault.

Meanwhile, the Cadet Council decided to have a full trial to give each unit a fair chance to defend itself against the charges. A judge and jury were selected and lawyers appointed for each side. Finally a date was set for the trial.

During this time, Tom, Roger, and Astro were confined to their quarters. They did not talk much, each conscious of the fact that should the Cadet Council decide against them, they might be expelled from the Academy. The same was true about the *Capella* unit, of course, but the Council might decide the *Polaris* had instigated the whole affair. Roger was particularly silent, since his actions in obtaining the study spools had started the whole chain of disastrous events.

The boys did not know which cadet would be appointed to defend them until late the following afternoon when there was a knock on the door, and a small, thin cadet, wearing a thick pair of eyeglasses that gave him a decided owl-like look, entered the room.

"Alfie Higgins!" cried Tom.

"The Brain!" yelled Astro.

"Glad to see you, pal!" shouted Roger.

The three cadets surrounded little Alfie and pommelled him playfully in their joy at seeing another cadet. Alfie merely looked at them gravely.

"Hello, Tom, Roger, Astro," he said somberly.

"What are you doing here?" asked Tom. "We're not allowed visitors."

"I'm not a visitor, Tom," replied the little cadet. "I'm your defense lawyer." He glanced at Roger and Astro. "I hope that will be satisfactory to you."

"Satisfactory!" exclaimed Tom. "Alfie, we couldn't ask for anyone better."

"That's right, Brain," said Roger. "You're the boy for us."

Astro grunted his approval. "Yeah."

"Well, in that case," said Alfie, opening his brief case, "I would suggest that we get right down to the facts. The trial is tomorrow."

"All right, Alfie, we're ready," said Tom. "I suppose you want to hear the whole thing."

"If you don't mind," said Alfie, adjusting his eyeglasses. "You start, Roger."

Sitting around the room, relaxed, yet concerned, the four cadets discussed the details of the case. Alfie took copious notes, occasionally interrupting Tom or Roger or Astro to ask a pointed question.



They talked for nearly four hours before Alfie was finally satisfied that he knew all the facts. He left them with the same somber attitude he had when he first arrived, and when the boys were alone, they each felt a chill of fear. The full meaning of a defense lawyer hit them. They were in serious trouble. After a few moments of silence, Tom rose and went into the bathroom to take a shower. Astro flopped on his back in his bunk and went to sleep. Roger began throwing darts idly at his "solar system" over his bunk. It was a map of his own design depicting the planets revolving around the sun, only each planet was represented by a picture of a girl, and his own grinning countenance was the sun. He was known to have made dates by throwing a dart at the map blindly and taking out the girl whose picture he had hit.

When Tom returned a few minutes later, he looked at his unit mates and shook his head. Never, in all the adventures they had shared or all the tough situations they had been in, had either Roger or Astro given up as they seemed to be doing now.

"And," thought Tom miserably, "with good reason too! I feel like tossing in the sponge myself."

The huge Space Academy gymnasium had been converted into a temporary courtroom, and at ten a.m. the following day the cavernous chamber was packed with all the cadets who could get off duty, in addition to a liberal sprinkling of Solar Guard officers and instructors who were keenly interested in their pupils' handling of orderly democratic procedure.

As the cadet judge opened the proceedings, Commander Walters, Major Connel, Captain Strong, and Lieutenant Wolchek, unit commander of the *Capella* crew, watched intently from their seats in the back of the gym. Up forward, at two small tables immediately in front of the Council's platform, the *Polaris* and *Capella* units sat rigidly, while their defense lawyers arranged papers and data on the table for quick reference. Little Alfie Higgins didn't say a word to Tom, Roger, or Astro, merely studied his opponent, Cadet Benjy Edwards, who was acting as attorney for the *Capella* unit. Edwards, a beefy boy with a florid face, looked across the chamber and sneered at Tom. The young cadet repressed a quick shudder of anger. There was bad blood between the two. Once, Tom had found Edwards bullying a helpless group of Earthworm cadets, forcing them to march and exercise under a broiling Martian sun for no reason at all, and Tom had put a stop to it. Edwards had taken every opportunity to get back at Tom, and now he had his best chance.

From the beginning, the trial was argued bitterly. Though the issues were clear-cut—illegal possession of the study spools, out on the quadrangle after hours, and fighting—Edwards tried to accuse the *Polaris* unit of irrelevant infractions. But Alfie Higgins was his equal. From the beginning, he admitted that the *Polaris* unit was guilty of the first charge, but made a strong claim that they had more than made up for the infraction by risking censure to return the spools to their rightful owners. In addition, he forced Tony Richards to admit that he had accepted Roger's apology. The Council agreed to drop that charge and to hold the second charge in abeyance, since both units seemed to have had good reason for being out after hours. Benjy Edwards scowled but could find no reason to object to the Council's decision. Alfie, on the other hand, broke into a smile for the first time that morning. He turned to the Council and announced that the only point of issue was the fight and who struck the first blow.

In the back of the room, Connel turned to Strong. "I, personally, am going to sign the pass for a week's leave for Alfie when this is over," he said. "I never saw such a ding-blasted brain in operation in all my life."

"He really slipped one over on Benjy Edwards all right," muttered Strong, his voice tinged with pride.

In front of the Council platform, Alfie turned to the judge.

"I would like to call to the stand, if the court please," he said in a clear voice, "Cadet Tom Corbett."

Tom walked to the chair, was sworn in, and sat down, facing Alfie.

"Cadet Corbett," Higgins paused, and then asked almost casually, "did you strike the first blow?"

"No," replied Tom.

"Dismissed," said Higgins suddenly. "Call Roger Manning to the stand, please."

Roger rose, and passing Tom on the way back, took his place on the stand and repeated the oath.

Alfie looked at Roger calmly and in a clear voice asked, "Cadet Manning, did you strike the first blow?"

"No."

"Dismissed," said Alfie. "Please call Cadet Astro to the stand."

The cadet audience began to murmur and sit forward tensely.

"What the devil is he doing?" growled Connel.

Strong grinned. "Blast me if I know, Lou," he said. "But wait and see. I'll bet you ten credits it's a lulu."

Astro was sworn in and Alfie waited for the room to become quiet.

"Cadet Astro," he said finally, "you have heard the other members of the *Polaris* unit state, under solemn oath, that they did not strike the first blow. Now, I ask you to consider carefully your answer. Did you, Cadet Astro"—Alfie paused dramatically, and nearly shouted the final part of the question—"strike the first blow?"

"No!" bellowed Astro.

"Dismissed," said Alfie quickly, turning to the Council. "Gentlemen," he said, "he did not strike the first blow, nor did Cadet Corbett, nor Cadet Manning. And I will not insist that the three members of the *Capella* unit be asked the same question, since I concede that they are three impeccable gentlemen who could *not* strike the first blow in a common fight."

As the audience in the courtroom burst into a roar, Benjy Edwards jumped to his feet.

"Your honor," he appealed, "I insist that the *Capella* unit be allowed to take the stand and deny the charge—"

"Your honor," interrupted Alfie, "the *Polaris* unit makes no charge. They freely admit that the *Capella* unit could not, I repeat, sir, could not have struck the first blow. And the *Polaris* unit—"

"Your honor—!" cried Edwards. "I insist."

The cadet judge rapped his gavel. "*Polaris* counsel will speak."

"Thank you, your honor. I just wanted to say that the members of the *Polaris* unit defer to the *Capella* unit. I submit, your honor, that it was nothing more than a misunderstanding and that both sides should be punished or freed."

"Is that all?" asked the cadet judge.

"Yes, sir," said Alfie.

"Counsel for the *Capella* unit may speak now. Do you insist on having your defendants brought to the stand to swear they did not start the fight?"

"Your honor—" began Benjy. But Alfie had already planted the seed. There were shouts of "Give it to both of them" from the gym.

Red-faced, Edwards held up his hand and appealed for quiet. "Your honor," he began at last, "after consultation with the members of the *Capella* unit, they have directed me to state that they are willing to abide by the suggestion of the *Polaris* counsel."

As the cadets in the courtroom roared their approval, the cadet judge consulted quickly with the members of the Council. A decision was reached quickly. A verdict of conduct unbecoming cadets was brought against both units, with orders for a strong reprimand to be placed on their individual official records. In addition, each unit was denied leaves and week-end passes from the Academy until the end of the term, four weeks away. All spare time was to be spent on guard duty.

"You are to report to Chief Warrant Officer Timothy Rush for further orders on all time not actually accountable for in

Academy schedules," concluded the cadet judge. "Dismissed."

The case was closed with a loud roar of approval from the entire cadet audience, who had seen justice done and democracy in action. Tom, Astro, and Roger looked at each other and smiled. They were still Space Cadets.

CHAPTER 3

"Where is Captain Strong?"

Startled, Commander Walters glanced up to see Major Connel enter his office, accompanied by Professor Hemmingwell. The thin little man scowled with irritation as he walked right up to the commander's desk.

"I wanted Captain Strong here for this meeting," the professor continued.

"Of course," replied Walters. "Captain Strong *should* be here." He turned to Connel. "Have you seen him, Connel?"

As Connel lowered his bulk into a soft chair, he sighed. "Steve is with his unit, chewing them out over that fight with the *Capella* unit."

Walters grinned. "You heard about our trial, Professor?"

"Yes," replied Hemmingwell stiffly. "Frankly, I cannot see how Captain Strong can ignore this meeting to hold hands with those infantile cadets."

Connel's face turned red and he glanced quickly at Walters, whose face was approaching the same color. Neither expected such a comment from a scientist.

"Professor," said Connel heavily, leaning forward in his chair, "I assure you Steve Strong is *not* holding their hands. In fact, I would hate to be in those cadets' shoes right now."

Hemmingwell grunted and drew back from Connel's burning glare. "Be that as it may," he said. "I cannot see that the staff of this institution has done anything constructive for the last three days. So far as I'm concerned, this childish talk about a common fight has been a complete waste of time."

"Professor Hemmingwell," said Commander Walters, rising from his chair, "if there had to be a choice between your project, as valuable as it may be, and the valuable lesson learned today by my cadets, I'll tell you right now that the lesson would come first. This was a very important issue. The cadets had their real taste of democracy in action today, down on a level where they could understand it. And, I dare say, there are quite a few boys who heard that childish talk, as you put it, and will remember it some time in the future when they are called on to act as officers of the Solar Alliance."

Connel cleared his throat noisily. "I think we'd better get on with the meeting," he said. "Do you have the plans and specifications, Hemmingwell?"

But the wiry professor refused to be dissuaded. He faced Commander Walters and wagged his finger under the spaceman's nose.

"You have a perfect right to your own ideas concerning the education of your cadets!" he shouted. "But I have a right to my ideas regarding my space projectile operations. I've devoted a good part of my life to this plan, and I will not allow anything, or anyone, to stand in my way."

Before Walters could reply, Connel jumped up and growled.

"All right! Now that we've got the speeches out of the way, let's get down to work."

Walters and the professor suddenly stopped short and grinned at the brusque line officer, who, for all his bullying tactics, knew how to take the edge off a touchy situation. Walters sat down again and Hemmingwell spread out several large maps on Walters' desk. He pointed to a location on the chart of the area surrounding Space Academy.

"This is the area here," he said, placing his finger on the map. "I think it is best suited for our purpose. Dave Barret and Carter Devers concur—"

"Someone mention my name?"

The sliding door to the commander's office opened and a tall, distinguished man with iron-gray hair entered, followed by a handsome, younger man.

"Devers!" exclaimed Hemmingwell in obvious delight. "I didn't expect you until this evening."

"Got away earlier than I figured," replied the elder man, who then turned to the two Solar Guard officers. "Hello, Commander Walters, Major Connel. Meet Dave Barret, my assistant." He gestured toward the young man beside him and they shook hands in turn.

"Well," said Devers, "have we missed anything?"

"Just starting," replied Walters.

"Fine," said Devers. "Oh, by the way, I want it understood, Commander, that while I am lending Dave to you to work on the operation with the professor, I'm not even going to let you pay him. He remains on my payroll, so you can't take him away from me. The Jilolo Spaceways would be lost without him."

Walters smiled. "All right with me," he said.

"I don't care *who* pays him, as long as he's with me on this, Commander," said Hemmingwell, wiping his glasses carefully. "That young man has a mind equipped with a built-in calculator."

Dave Barret grinned in obvious embarrassment. "If Mr. Devers can devote his time to you for one credit a year as salary, I have no objections to working on this project," he said. "In fact, I told Mr. Devers that if he didn't let me come down here, I'd quit and come, anyway."

Hemmingwell beamed. "Well, now, if Captain Strong were only here, we could get along with the business at hand."

Devers frowned. "Why is he so important?" he asked.

"Steve has been placed in charge of procurement for the construction of the hangar and getting the spur line in from the monorail station," replied Connel. "And that reminds me, Professor," he continued. "Where is your hangar going to be? And where is that spur coming in from? Are we going to have a lot of building to do to get that blasted thing snaked over those hills?" Connel pointed to the protective ring of high rugged peaks that surrounded the Academy.

"That's why Dave Barret here is so important," replied Hemmingwell. "He figured out a way of tunneling through this section here"—he pointed to a particularly rugged section of the hills—"at half the cost of bringing it straight in on that plain there."

Connel and Walters studied the map closely. "Very good," said Walters.

"You think you can do it, Dave?" asked Connel.

"I'm sure I can, sir," replied the young man.

"And save time?" growled Connel.

"I'll have that line through, and in operation, bringing in the first haul of hangar material in three weeks."

Impressed by the young man's confidence, Connel turned to Commander Walters and nodded.

"Well, if you can do that, Barret," said Walters, "Professor Hemmingwell will have to begin his operations now, won't you, Professor?"

"That's right," said the wiry old man. "Right now, this very minute."

Devers suddenly spoke up. "I would like to have one thing explained, Commander, unless, of course, it's a breach of security, but—" He hesitated.

"What is it?" asked Connel.

"I've been going along with you for some time now," explained Devers. "But I still don't know the exact nature of the projectile you propose to build. What's the purpose of it?"

"You certainly deserve an answer to that question," said Commander Walters warmly. "You've contributed your services to this operation absolutely blindly. Now you should know everything." He paused and looked at Hemmingwell and Connel, who nodded in return. "Carter," he resumed, "we are going to create a spaceship that can launch a large projectile filled with cargo and send it to any small area."

Carter Devers' face lighted up. "You mean, you are going to fire payloads from space freighters instead of landing with them?"

"Exactly," said Walters. "These freighters will deliver mail and supplies to out-of-the-way settlements that do not have a spaceport large enough to handle the giant freighters and have to depend on surface transport from the larger cities."

Carter Devers shook his head slowly. "This is the most amazing thing I've ever heard of in my life."

"I thought you'd be surprised, Carter," said Walters, his face glowing with pleasure. "The big item, of course, is to lick the problem of standardizing the receivers for the projectiles. They must be lightweight, easily assembled, and precision made, since it's going to have an electronic gismo inside for the projectile to 'home' on."

Professor Hemmingwell grunted. "That electronic gismo, as you call it, is the real idea behind the whole operation."

"How is that, Professor?" asked Devers.

"Well, it works on this principle," began Hemmingwell. "The receiver will send out a distinctive radar beam. In the spaceship, the projectile designated for that receiver will be tuned in to the frequency of that beam and fired from the ship. A homing device, built into the projectile will take over, guiding it right down the beam to its destination."

"And how does that radar beam work?" asked Devers.

"That," said Connel stiffly, "is a military secret."

"Of course," nodded Devers, smiling. "I was just curious."

"Well, now that we're agreed on a site for the operation," said Professor Hemmingwell, "is there anything else you want to discuss, Commander?"

"Not for the moment, Professor," replied the commandant of Space Academy. "You have any more questions, Major Connel?"

When Connel shook his head, Devers spoke up again.

"There is something else I would like to know, if it isn't a breach of military secrecy," he said with a smile at Connel. "I don't remember seeing anything about this project in the bills sent before the Solar Council. When was it authorized?"

"It wasn't," snapped Hemmingwell. "It was blocked before it came to a vote. So I ran around the whole Solar Alliance, begging and borrowing the money to finance the project myself."

"And the Solar Guard is just lending technical assistance and facilities," supplied Walters. "Of course, should the project succeed, we will go before the Solar Council with an emergency request to incorporate the idea into the defense of all Solar Guard outposts."

"Private capital, eh?" said Devers, turning to look at the professor admiringly. "You are a very brave man, Professor Hemmingwell, to risk so much. And, I might add, you must be an excellent salesman to sell Solar Alliance bankers your ideas."

"Common sense," snorted the professor. "Plain horse sense."

"Still," insisted Devers, "most of the bankers with whom I've ever tried to talk common sense *were* horses." As everyone laughed, he turned to Walters. "Now, just what do you want me to do, Commander?"

"Carter, you've done so much for this project already that I'm going to give you a rest," said Walters.

"I don't understand."

"From now on," Major Connel broke in, "the project will be in the hands of the professor. If he needs anything, he'll tell Steve Strong. If Strong can't fulfill the request, he'll pass it on to Commander Walters, and if the commander feels it necessary to have your help, he will contact you."

"You understand, of course," said Walters, trying to soften the major's flat statement.

"Of course," replied Devers easily. "Still, if you need my help on this thing at all, don't fail to call me."

"Thank you, Carter," said Walters. "You've been a great help already."

Shaking hands all around and wishing them well, Devers left the office. Dave Barret, Commander Walters, and Professor Hemmingwell turned to their study of the map, but Major Connel remained where he was, rubbing his chin thoughtfully. He shook his head as if to brush an impossible idea out of his mind and then turned to the map.

Tom Corbett, Roger Manning, and Astro stood at rigid attention in their dormitory room, backs ramrod straight, eyes front, hands stiffly at their sides. Captain Steve Strong, his face red and voice hoarse, strode up and down in front of them.

"And another thing!" he roared. "This court reprimand goes on your official records, and you're going to spend your time on guard duty like any common Earthworm that doesn't know its rocket from its pocket!" For nearly half an hour the cadets had listened to their unit instructor bawl them out. "When I think," he continued, "when I *think* of how close you three space brats came to getting kicked out of the Academy—" Words seemed to fail the young captain momentarily and he slumped on one of the bunks and looked at the row of cadets, shaking his head. "Why, in the name of Saturn, I ever accepted the responsibility of making you three bird brains into cadets is beyond me. And to think that when you first came here, I thought you had that special something to make you an outstanding unit. I even went out on a limb for you. And now you pull a stunt like this."

Behind them, the door opened and a short man, no more than five feet tall, but with the bulging muscles of a tiny giant stretching his bright-red enlisted man's uniform, stepped inside. He saluted Strong smartly.

"Chief Petty Officer Rush here to assign the *Polaris* unit to guard duty, sir," he announced.

"All right, Firehouse," said Strong, using the man's nickname. "Give it to them. Show them no mercy. By the rings of Saturn, they've got to be made to realize their responsibilities!"

"Yes, sir," said the thick little man.

Strong walked out of the room without another word, nor even a backward glance at the cadets.

As soon as the door closed, Timothy "Firehouse" Rush faced the three cadets, his beaten and battered face glowing with anticipation.

"Get this!" he growled. "When you're assigned to guard duty with the E.M.'s of the Solar Guard, you leave your immunity as cadets here in the Academy. From now on, you belong to me. And I'll tell you right now, there isn't anything in space that I hate more, or think less of, than Space Cadets. You get special privileges you don't deserve because you wear that uniform. You get a chance to learn to be a spaceman and most of you muff it. I've got E.M.'s in my outfit that could blast circles around either of you—guys that deserve the chance you've got, and fouled out because they can't spell or don't know how to hold a cup of tea with their fingers the right way. When you come to me, it means you've done something bad. You're on your way out. And I'm going to try my best to see that you make it—*out*." He took a step forward and glared at them. "Report to me at 1800 hours and"—his voice dropped to a gravelly roar—"you better not be late—and you better not be early."

He spun on his heels in a perfect about-face and left the room.

"There is only one consolation," sighed Tom. "The *Capella* unit is getting the same thing we're getting."

"Here we go!" breathed Roger slowly.

"I've been thinking about quitting the Academy, anyway," growled Astro.

CHAPTER 4

"Halt!"

Roger growled the order into the darkness and unslung the paralo-ray rifle from his shoulder, bringing it around to firing position. "Advance and be recognized," he said flatly.

Nothing moved. Even the air seemed still.

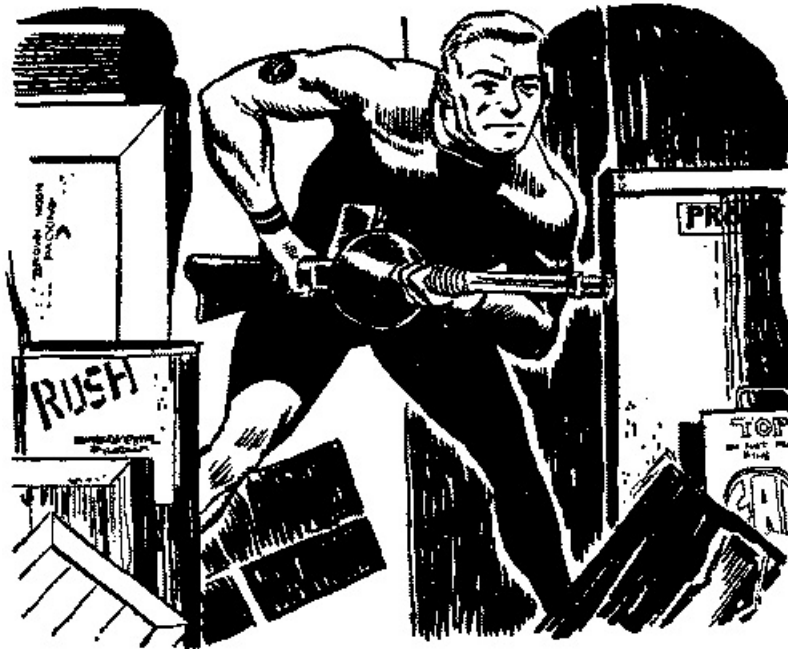
"Advance and be recognized," Roger ordered again. Still nothing moved. The cadet glanced around quickly in the direction of the guardhouse where he knew there was a communicator to the sergeant of the guard. Should he call for help? He decided against it and moved forward toward the noise he had heard, his finger poised on the trigger of the paralo-ray gun.

"Advance and be recognized," he called again. As he walked slowly between the huge packing cases piled outside the newly constructed hangar, he saw a shadowy movement to his left. He raised the deadly ray gun, and his finger tightened on the trigger.

"Advance and be recognized," he said over the sights of the gun.

"Mee-ooo-wwww!"

A tiny white kitten flashed out of a gap between two boxes and ran to his feet, purring, rubbing up against his space boots.



"Well, blast my rockets!" Roger laughed. He slung the gun over his shoulder and reached down to pick the kitten up in his arms. He began stroking its fur and making little soothing noises. He started back to the other end of his patrol post.

"You're a cute little fella," murmured Roger, nuzzling the kitten against his chin. "But you almost got blasted."

"Guard! Stand to!"

Startled, Roger whirled around to see Firehouse Tim behind him, his battered and beaten face clouded with rage. "Drop that animal at once," the petty officer roared.

Roger stooped over to let the kitten run free and it dashed away into a crack between the boxes and disappeared.

"Manning," began the enlisted spaceman, "the next time I catch you not attending to your duty, I will bring you up on charges of neglect! Carry on!" Rush spun on his heel and vanished into the darkness.

"Blasted muscle-bound squirt!" sneered Roger under his breath, shouldering his rifle and resuming his slow patrol outside the hangar.

For three weeks, Tom, Roger, and Astro, along with the three members of the *Capella* unit, had been spending close to eight hours a day on guard duty, eight to ten hours a day in classroom work, and the rest of the time studying. They only averaged some two to three hours of sleep per day. They were dead tired but they stuck to their task doggedly, without

complaint.

Around them, the work on Professor Hemmingwell's project had proceeded with amazing speed. The tunnel promised by Dave Barret had been finished in less than five days, with the rail for the monorail spur installed overhead as each yard of the shaft was completed. In the second week, scores of cars loaded with building materials began rolling into the deserted plain several miles away from Space Academy. Then, one morning, nearly a thousand construction workers arrived and built a hangar in thirty-six hours. No sooner had the huge building been completed than a tight guard had been placed around it. Specially designed identification tags were issued to the guards and workers on the project. Gradually the huge store of cases and boxes outside the hangar had been moved inside, with all but a few of the smaller ones remaining outside. The secret work inside the hangar was advancing rapidly, but this did not enter into the thoughts of the three cadets of the *Polaris* unit, nor of the *Capella* unit. The harsh discipline instituted by Tim Rush and the extra study necessary for the end-of-year exams had forced the cadets into a round-the-clock struggle not only to keep awake but to make the class promotion lists.

Roger paced off the required distance, wheeled smartly, and in so doing came face to face with Astro, who was patrolling another side of the hangar.

"I just saw Firehouse," said Astro quietly. "Did he catch you goofing?"

"Yeah," growled Roger. "I found a kitten and he walked up just as I was holding it."

Astro grinned. "I wouldn't be surprised if that pocket-sized giant didn't send that cat down there to tempt you."

"How's Tom?" asked Roger. Astro, in his patrol, came in contact with both unit mates.

"Sleepy. He's having a tough time with that chapter on space law. He didn't sleep at all last night."

"He better keep awake," said Roger. "That little fireman's got his rockets hot tonight. He'll blast Tom sure if—"

"Wait a minute," said Astro suddenly, looking off into the darkness. "What was that?"

Roger spun around, his rifle in his hands, ready to fire. "What is it?" he asked.

"I don't know," replied Astro in a whisper. "I thought I saw something move inside the hangar." He pointed to a large window. "Sort of a shadow against the frosted glass."

"Are you sure?"

"Of course I'm sure."

"I'll investigate. You get Tom and call Firehouse."

"Right," replied Astro, and raced down the path, alongside the hangar.

Grasping his rifle firmly, Roger inched toward a nearby door. He opened it a crack, then flattened himself against the wall and watched Astro run toward the other end of the hangar. He saw the big Venusian say a few quick words to Tom and then rush off toward the guardhouse and the communicator. Tom waved to Roger, indicating that he would enter the opposite door of the hangar.

Roger dropped to his hands and knees and poked his head through the open door, peering around from one end of the huge dark chamber to the other. Then, taking a deep breath, he rose and stepped quickly inside. He closed the door behind him and stood still, listening for some sound.

Suddenly there was a flash of light from the opposite wall. Roger brought the paralo-ray gun up to his shoulder quickly and was about to fire when he realized that the light he saw was Tom opening the door on the opposite side. He breathed easier and waited until he could distinguish Tom's moving figure clearly, and then walked stealthily forward on a parallel line.

It was the first time Roger had been inside the hangar since it had been constructed and he was not sure of his way around, but gradually, the moonlight filtering in through the frosted plates of Titan crystal illuminated the huge forms of the machines around him.

He stopped and gasped. Without even realizing it, he emitted a long whistle of astonishment. Before him, reaching up into the shadows of the cavernous hangar, was the gleaming hull of a huge rocket ship. Two hundred feet long, the space vessel stood on its stabilizer fins, ladders and cables running into the open ports on both sides.

Roger waved to Tom, who had also stopped to stare at the giant spaceship, and the two of them met beneath the gleaming hull.

"What's the matter?" asked Tom. "Astro said you saw someone."

"I didn't see a blasted thing," said Roger in an exasperated whisper. "That big goof said *he* did."

"Wow!" said Tom, looking up at the ship. "This is some baby. I never saw one with lines like that before. Look at the funny bulges on the lower side of the hull."

"Sh!" hissed Roger. "I just heard something."

The two cadets stood silently, ears cocked for the slightest sound in the huge hangar. They heard a distinct tapping sound from somewhere above them.

"It's coming from inside the ship!" said Tom.

"You climb in the other port," said Roger. "I'll take this one."

"Right," said Tom. "And remember, if there's any trouble, shoot first and ask questions later."

"Check."

Tom slipped away from Roger and moved to the opposite side of the ship. Slinging the rifle over his shoulder, he climbed up the ladder silently toward the open port.

Making his way noiselessly through the air lock, he entered the huge main deck of the ship and was able to see his way around by the faint glow of the emergency reflectors in the bulkheads. Tiny, sparkling gemlike pieces of specially coated Titan crystal, they glowed with steady intensity for many hours after having been exposed to any form of light. The deck was a mass of cables, boxes, tools, and equipment. Tom noticed curious-looking machines behind, what he judged to be, the odd bulges on the outside of the hull. Ahead of him, a hatch was partially open and he could see light streaking through the opening. He gripped his rifle tightly, finger on the trigger, and moved forward.

At the hatch he paused and looked into the next compartment. From the opposite side, he saw another hatch partially open and the outline of Roger's head and shoulders. Between them, a man was bending over a makeshift desk, copying information from a calculator and a set of blueprints. Tom nodded across to Roger and they both stepped into the compartment at the same time.

"Put up your hands, mister, or I'll freeze you so hard it'll take a summer on the Venus equator to warm you up," Roger drawled.

The man jerked upright, stumbled back from the desk, and moved toward Tom, keeping his eyes on Roger. He backed into the barrel of Tom's ray gun and stopped, terrified. He threw up his hands.

"What—wh—" he stammered and then caught himself. "How dare you do this to me?" he demanded.

"Shut up!" snapped Tom. "What are you doing here?"

"None of your business," the man replied.

"I'm making it my business," snapped Tom, pressing the gun into the man's back. "Who are you and how did you get in here?"

The man turned and looked Tom in the eye. "I have a right to be here," he stated coldly. "I'll show you my identification—" He brought his hands down and reached into his jacket, but Roger stepped over quickly and brought the barrel of his gun down sharply on the man's head. He slumped to the floor with a groan and was still.

"What did you do that for?" growled Tom.

Roger didn't reply. He reached down into the unconscious man's jacket and pulled out a small paralo-ray gun stuck in the top of his waistband. "Some identification," Roger drawled.

"Thanks, pal," said Tom sheepishly. "Let's search him. Maybe we can find out who he is."

As Roger bent over the fallen man, there was a commotion in the hangar outside the ship, followed by the sound of footsteps clattering up the ladders to the ports. Seconds later, Astro, followed by Tim Rush and a squad of enlisted spacemen, surged into the compartment. Rush stopped short when he saw the man on the floor.

"Great jumping Jupiter," gasped the petty officer, then whirled on Tom and Roger. "You space-blasted idiots!" he shouted. "You good-for-nothing harebrained, moronic dumbbells! Do you know what you've done?"

Tom and Roger stared at each other in amazement. Astro, standing to one side, looked confused.

"Sure we know what we've done," declared Tom. "We found this guy in here copying secrets from some blueprints there on the desk and—"

"Copying secrets!" screamed Rush. "Why, you ding-blasted idiots, that's Dave Barret, the supervisor of this whole

project!"

The man on the floor stirred and Firehouse ordered the squad of enlisted men to help him up. Just then, there was a bellow of rage from the hatch. Major Connel stepped into the compartment, his face a mask of disgust and anger.

"By the rings of Saturn!" he roared. "I've been sitting in the laboratory for the last hour and a half waiting for Dave Barret to come back with vital information, so we could get on with our experiments, and I find that you—you—" Connel was so furious, he could hardly talk.

He faced the three cadets. "There isn't anything in the books that says you should be disciplined for this—this—outrage, but believe me, Cadets"—his voice sounded like thunder in the small compartment—"this is the very last time I'll stand for this kind of stupidity."

Tom gulped but stepped forward bravely. "Sir," he said clearly, "I would like respectfully to submit the facts for the major's honest consideration. Neither of us has ever seen this man before and we found him copying information from these blueprints. When I challenged him, he said he was going to show us his identification. He put his hands in his jacket to get it, but Roger saw a gun in his belt, and thinking he was going to use it, Roger hit him on the head." Tom stopped, clamped his mouth shut, and stared the major in the eye. "That's all, sir."

Connel returned the stare, his eyes meeting those of the cadet for a full half minute. "All right," he said finally. "I guess it's just a case of misjudgment. But," he added scathingly, "in the face of the *Polaris* unit's record, you can understand my initial opinion."

As Dave Barret was assisted from the ship by the guards, Connel turned to Rush. "Firehouse!" he barked.

"Yes, sir?"

"See that these cadets don't cause any more mischief."

"Yes, *sir*."

"Dismissed," snapped Connel.

"All right, you space brats," bellowed Rush, "back to your patrol!"

Tom, Roger, and Astro left the ship and returned to their posts outside the hangar. Just before they separated to resume their endless march around the hangar, Tom winked at his unit mates. "At least we didn't get demerits," he said.

"Only because Connel couldn't find any reason to give them to us," sneered Roger. "What a busted rocket he's getting to be!"

"Yeah," agreed Astro quietly.

The three cadets began their round again, their eyes heavy with lack of sleep, their arms and legs leaden, and their desire to become successful Space Cadets more determined than ever. But they didn't know they had started a chain reaction that would affect their very lives.



CHAPTER 5

"We passed!"

Tom turned away from the lists posted on the dormitory bulletin board and with his arms around Astro and Roger pushed through the knot of cadets.

"Yeow!" bellowed Astro.

"We made it," murmured Roger with a note of disbelief in his voice. "We made it!" And then, with the realization that he was still a Space Cadet for at least another term, he turned and began pounding Astro on the back. "You big Venusian ape, we made it."

Arm in arm, the three cadets strolled across the quadrangle and shouted to friends they passed. Occasionally they fell silent when they saw a boy carrying his gear to the supply building. These had failed to pass the rigid examinations.

Near the Tower of Galileo, the cadets came face to face with Tony Richards, McAvoy, and Davison. The two units looked at each other silently, remembering what had happened only four short weeks before. Then they all smiled and pounded each other on the back, congratulating each other on passing. Neither of the units had made top honors as a result of their fight and the trial, and having to spend so much time on guard duty, but they had passed and that was the most important thing. The boys all adjourned to the credit exchange and gorged themselves on Martian fruit pies covered with ice cream. Finally the party broke up when Tom remembered that he and his unit mates had to go on guard duty in half an hour.

"Well," said Tony Richards, rising, "we relieve you guys at midnight, so we might as well hit the sack right now. I've been waiting for this night for a long time."

"No study," sighed Davison. "What heaven! I feel as if I've been pardoned from prison."

The three boys of the *Capella* crew said good-bye to Tom, Roger, and Astro, and walked off. Tom settled back in his chair and sighed. "Sure wish I was in their boots," he said. "I don't see how I'm going to get through tonight."

"Don't think about it," said Roger. "Only seven more days to go, and then we go on summer cruise with the *Polaris*."

"I can't wait to get back on that power deck," said Astro. "It'll be like going home."

Later, riding the new slidewalk to the area where the huge hangar had been built, they saw Captain Strong returning from the restricted area on the other slidewalk. They hopped off their walk and waited for the young officer.

"I'm happy that you passed the exams, boys," he said. "And I want you to know Commander Walters and Major Connel think a lot more of you, though they wouldn't admit it, for the way you worked to make it."

"Thank you, sir," said Astro respectfully.

"You'll have to excuse us, sir," said Tom. "We've got to get out to the hangar and go on guard."

"Yes, and you'd better hurry," said Strong. "After that mix-up with Dave Barret, Firehouse Tim has his eye on you. Barret put up quite a fuss about it."

"I still don't see how Mr. Barret got in there," said Tom. "The fourth side of the hangar faces the hills, and we three covered the other three sides."

"However he got in," interrupted Strong, "he had a right to be there. And he also had a right to carry sidearms."

"Captain Strong," said Roger, "we've talked about it a lot, the three of us. And we decided that regardless of what Major Connel or Firehouse or Barret have said, we'd do the same thing, in the same way again."

"I think you're perfectly right, Manning. But don't quote me," said Strong, his voice serious. "This is one of the most important projects I've ever been connected with and—" He stopped suddenly. "Well, I can't tell you any more. That's how tight the security is on it."

"But everyone knows that it's a projectile that will home on a target, sir," said Tom.

"Yes, that was given to the stereos for general news release, but there are other factors involved, factors so important that they could revolutionize the whole concept of space flight."

"Wow!" said Tom. "No wonder they have this place so well guarded."

"Humph," snorted Roger. "I'd give up the opportunity of guarding this revolutionary secret for one night's good sleep."

"You'll get that tomorrow when we go off duty," said Tom. "And please, Roger, no blunders tonight, eh? Let's not take any chances of losing the summer cruise in the *Polaris*."

"Listen! You want to talk to the Venusian hick about that, not me," declared Roger. "He's the one that spotted Barret."

"But you hit him on the head," growled Astro. "You and your catlike reflexes." The big cadet referred to a recent letter he had seen in which one of the blond-haired cadet's many space dolls referred to his sensitivity as being that of a poet, and his dancing as smooth as the reflexes of a cat.

Roger spun on the big cadet. "You blasted throwback to a Venusian ape!" he roared. "If I ever catch you reading my mail again—"

"You'll what?" growled Astro. "You'll do just exactly what?" He grabbed Roger by the arm and held him straight out, so that he looked as if he were hanging from a tree.

Strong laughed and shook his head. "I give you three to the loving, tender care of Firehouse Tim," he said, hopping over on the moving slidewalk, back to the Academy.

"Put me down, you overgrown idiot," Roger howled.

"Not until you promise not to threaten me with violence again," said Astro with a wink at Tom. The young curly-haired cadet doubled up with laughter. Finally Roger was lowered to the ground, and, though he rubbed his shoulder and grumbled, he was really pleased that Astro felt like roughhousing with him. The events of the last few weeks had so tired all of them that there had been no energy left for play.

Lightheartedly they stepped over to the slidewalk and were back on their way to the secret project.

Two huge wire fences had been built around the hangar area now, fences carrying a surge of paralyzing power ready to greet anyone that dared touch it. More than twenty feet high, the outer fence was buried six feet into the ground and was some hundred yards away from the hangar building itself, and fifty yards away from the second fence. The entire area was also guarded by radar. Should any unauthorized person or object be found in that area, an automatic alarm sounded and in fifteen seconds a hundred fully armed guards were ready for action. The men who had been cleared by security to work in and around the restricted area wore specially designed belts of sensitized metal that offset the effects of the radar. But the fence was still the untouchable for everyone.

Tom, Roger, and Astro had now been moved inside the hangar itself, to stand guard over the only three doors in the cavernous structure. They were armed with powerful heat blasters. These rifles were different from the paralo-ray guns they had used previously. A beam of light from the ray guns would only paralyze a human being, while the blaster destroyed anything it touched, burning it to a crisp.

As soon as the three cadets saw the change in armament, they knew they were guarding something so secret that human life, if it interfered with the project, would be disintegrated. Only once before, on a hunting trip to Venus, had they ever used the blasters, but they knew the deadly power of the weapons.

Nothing was said to them. Firehouse Tim had not posted any special orders or given them any special instructions. Each man who worked inside the hangar had to pass a simple but telling test of identification. On a table at each entrance to the hangar was a small box with a hole in the top. Each worker, guard, and person that entered the hangar had to insert a key into the hole and it made contact with a highly sensitive electronic device inside. The keys were issued only by Major Connel or Captain Strong, and should anyone attempt to enter the hangar without it, or should the key not make the proper contact, lighting up a small bulb on the top of the box, Tom, Roger, and Astro had simple instructions: Shoot to kill.

This form of identification had been employed for some time now, even before the wire fence had been installed, but the really spectacular change was in the heat blasters each guard carried. This, more than anything else, impressed on everyone connected with the project, that to move the wrong way, to say the wrong thing, or to act in any suspicious manner might result in instant death.

It was a mark of trust that Tom, Roger, and Astro had been placed in such a highly sensitive position. They could kill a man and simply explain, "The light didn't go on!" and that would be the end of it. Neither of them knew that Connel had specifically requested that they be assigned to the day shift, when the hangar would be crowded with workers, who, intent on their assigned jobs, might be careless and leave themselves open to instant action on the part of the guards. Connel reasoned that Tom, Roger, and Astro, aside from their occasional antics in the Academy, would be more responsible than rough enlisted spacemen. The orders were specific: shoot to kill, but there was almost always one poor human being who would forget. In spite of the necessity for tight security, Connel felt he had to allow for that one percent of human failure. Secretly he was very happy that he had a crack unit like the *Polaris* to place in such a job. And the

Capella unit had been entrusted with the same responsibility.

It was under such tight conditions that Astro, watching the least busy of the three entrances and exits, saw Dave Barret walk to a nearby public teleceiver booth, and, with the door ajar, place a transspace call to Venusport.

The booth was used often by the workers and Astro did not think much of it, until he accidentally overheard Barret's conversation.

"... Yeah, I know, but things are so tight, I can't even begin to get at it." Barret had his mouth close to the transmitter and his voice was low, but Astro could still hear him. "Yeah, I know how important it is to you, but I can be burned to a cinder if I make one false move. You'll just have to wait until I find an opening somewhere. Good-by!"

Barret switched off the teleceiver set and stepped out of the booth to face the muzzle of Astro's blaster. "Stand where you are!" growled the big cadet.

"What, why you—" Barret clamped his mouth shut. There was a difference between being frozen and being blasted into a crisp.

Astro reached over and touched the button that would alert a squad of guards, Major Connel, and Tim Rush. In a flash the alarm sounded throughout the hangar and troopers stormed in brandishing their guns. Firehouse Tim and Connel arrived seconds later. They skidded to a stop when they saw Barret with his hands in the air and Astro's finger on the trigger of the blaster.

"By the blessed rings of Saturn!" roared Connel. "Not again."

"Put down that gun," demanded Rush, stepping forward quickly. Astro lowered the gun and Barret dropped his hands.

"What's the meaning of this?" demanded Connel, his face reddening with rage.

Astro turned and looked the major right in the eye. "Major," he said calmly, "this man just made a teleceiver call—a transspace call to Venusport."

"Well, what about it?" cried Barret.

"Sir," said Astro, unruffled by Barret's screaming protest, "this man spoke of getting at something, and that he was unable to do so, because he might be burned to a cinder. And the other party would have to wait until he found an opening."

"What!" exclaimed Connel, turning to look at Barret. "What is the meaning of this, Barret?"

"Why, that knuckle-headed baboon!" yelled Barret. "Sure, I made a transspace call to Venusport—to the Venusian Atomic By-Products Corporation."

"What was the call about?" demanded Connel.

The guards had not moved and the workers in the hangar were now gathering around the small knot of men by the teleceiver booth.

"Why—I—"

"Come on, man!" shouted Connel. "Out with it."

"I called about getting a new timer for the projectile fuel-injection system," snapped Barret. "The timer is too slow for our needs. I wanted to adjust it myself, but the projectile is so compact, I can't get at it without taking a chance of getting doused by the fuel."

"What about that remark about finding an opening?" growled Connel.

"What's going on here?" called Professor Hemmingwell as he bustled up to the group. "Why aren't these men working? Dave, why aren't you up there—?"

"Just a minute, Professor!" Connel barked, and turned back to Barret. "Go ahead, Barret."

"They can't make a new timer until I find a way of installing it without taking apart the whole projectile," said Barret, adding sarcastically, "in other words, Major—finding an opening."

"All right," barked Connel. "That's enough." He turned to the assembled workers. "Get back to work, all of you." The men moved away and Firehouse Tim led the guards back to their quarters. Professor Hemmingwell, Barret, and Astro remained where they were.

Connel turned to Astro. "Good work, you dumb Venusian," he snorted. "But so help me, if you had burned this man, I, personally, would've buried you on a prison rock." The major then turned to Barret. "As for you—" he snarled.

"Yes?" asked Barret coolly.

"You make one more call like that over a public teleceiver," Connel roared, "especially a transspace call that's monitored by the idiots in the teleceiver company, and I'll send *you* to a prison asteroid!"

"Now, Major," said Hemmingwell testily, "I don't think you should speak to Dave that way. After all, he's a very valuable man in this project."

"How valuable would he be if this cadet had gone ahead and blasted him?" snarled Connel.

"It's just another example of how these stupid boys have obstructed my work here," replied Hemmingwell angrily. "I can't see why they have to interfere this way. And they always pick on poor Dave."

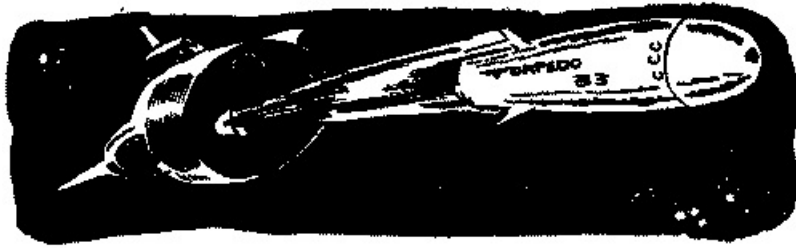
"Yes," snarled Barret. "I'm getting pretty tired of being a clay pigeon for a bunch of brats." He turned to Astro. "You'll have a head full of socket wrench if you mess with me again."

"You'll get a receipt, Barret," growled Astro. "Paid in full."

"All right, break it up," growled Connel. "Back to your post, Astro. And you get back to work, Barret, and remember what I said about using that public teleceiver."

Barret and Hemmingwell walked off, with the little professor talking rapidly to the younger scientist, trying to calm his anger.

Astro, Tom, and Roger were extraordinarily strict about the exit of the workers that night and there was angry muttering in the ranks of the men who wanted to get home. But the three cadets refused to be hurried and made each man perform the ritual of getting out to the letter. Still later, after they had been relieved by the *Capella* unit and had told them of the incident between Astro and Barret, they headed back to the Academy dormitory more tired than they had ever been before in their lives. Thirty seconds after reaching their room, they were asleep in their bunks, without undressing or washing. Like whipped dogs, they sprawled on their bunks, dead to the world.



CHAPTER 6

Sabotage!

Major Connel, Commander Walters, Captain Strong, Professor Hemmingwell, and Dave Barret stared unbelievably at the tangle of wires and smashed tubes on the main deck of the sleek spaceship.

"Get every man that has been in this hangar during the last twenty-four hours and have him brought under guard to the laboratory for psychographs." Commander Walters' face was grim as he snapped out the order.

Professor Hemmingwell and Barret got down on their hands and knees and examined the wrecked firing device carefully. After a long period of silence, while Strong, Walters, and Connel watched them pawing through the tangle of wires and broken connections, Hemmingwell stood up.

"It can be replaced in twelve hours," he announced. "I believe that whoever did this either didn't know what he was doing, or it was an accident."

"Explain that, will you, Professor?" asked Strong. "I don't understand."

"This is an important unit," Hemmingwell replied, indicating the wreckage, "but not the most important part of the whole unit. Anyone who really knew what he was doing and wanted to delay the project could have done so much more easily by simply destroying this." Hemmingwell held out a small metallic-looking cylinder.

"What is that, Professor?" asked Barret.

"Don't you know?" asked Connel.

"No, he doesn't," snapped Professor Hemmingwell. "This is something I developed that only the commander and myself know about."



"So, if you and Commander Walters are the only ones that know about it," said Steve Strong slowly, "then a saboteur would have thought it unimportant and concentrated on the rest of the mechanism."

"Looks that way," mused Connel. "But there is still the possibility that it was an accident, as the professor said."

Strong looked at Connel questioningly and then back to the wreckage. The unit had been hurled from the upper deck of the spaceship, down to the main deck, and it looked as if someone had trampled on its delicate works.



"I'll have a crew put right to work on this," said Hemmingwell.

"Commander," Connel suddenly announced, "I'm going ahead with my trip to Mars to inspect the testing receivers. I don't think this incident is serious enough for me to delay leaving, and if Professor Hemmingwell and his men can get this unit back in operation in twelve hours, then there's very little time lost and we can go ahead with the tests on schedule."

"All right, Lou," said Walters. "Do whatever you think best. I'll have a ship made ready for you at the Academy spaceport any time you want to leave."

Connel nodded his thanks. "I think I'll take the *Polaris*, with Cadet Corbett along as second pilot," he said. "I'm getting too old to make a solo hop in a scout all the way to Mars. I need my rest." He grinned slyly at Walters.

"Rest," Walters snorted. "If I know you, Lou Connel, you'll be up all night working out standard operational procedures for the space projectiles." He turned to Strong. "He's so sure this will work that he's already writing a preliminary handbook for the enlisted personnel."

Strong turned and looked at the major, amazed. Every day he learned more and more about the space-hardened veteran.

Connel turned to Strong. "Will you give Corbett the order to be ready at 0600 hours tomorrow morning, Steve?" he asked.

"Certainly, Lou," replied Strong.

As the major turned away, Walters called after him, "Take it easy."

Leaving Hemmingwell and Barret to take care of clearing away the wreckage, Strong and Walters climbed out of the ship, left the hangar, and headed for the Academy.

"Do you think it was sabotage, sir?" asked Strong, as they rode on the slidewalk.

"I don't know, Steve," said the commander. "If that special unit of Hemmingwell's had been damaged, I would say it might have been an accident. But the things that were damaged would have put the whole works out of commission if we didn't have that unit."

"Yes, sir," said Strong grimly. "So the man who did it thought he was doing a complete job."

"Right," said Walters. "Assuming that it was sabotage."

"Anyone you suspect?"

"Not a living soul," replied Walters. "Every man in that hangar has been carefully screened by our Security Section. Background, history, everything. No, I think it really was an accident."

"Yes, sir," replied Strong, but not with the conviction he would like to have felt.

Pat Troy had been Professor Hemmingwell's foreman for nearly two years. It was his job to read the complicated blueprints and keep the construction and installation work proceeding on schedule. Troy lacked a formal education, but nevertheless he could read and interpret the complicated plans which the professor and his assistants drew up, and transform their ideas into actual mechanical devices. Professor Hemmingwell considered himself fortunate to have a man of Troy's ability not only as a co-worker, but as a close friend.

But Dave Barret did not like Troy, and he made this dislike obvious by giving Troy as much work as possible, mainly tasks that were beneath his ability, claiming he only trusted the trained scientists. Barret put the professor in the position of having to defend one to the other. He needed both men, both being excellent in their respective fields, and found it more and more difficult to maintain any kind of peaceful relationship between them. Barret, as Hemmingwell's chief assistant and supervisor of the project, was naturally superior in rank to Troy, and made the most of it. A placid, easy-going man, Troy took Barret's gibes and caustic comments in silence, doing his work and getting it finished on time. But occasionally he had difficulty in controlling his resentment.

The day after the accident, or sabotage attempt on the firing unit, the hangar was quiet, most of the workers still being psychographed. Troy, one of the first to be graphed, had been detained by the technicians longer than usual, but was now back at his bench, working on the unit. This incident gave Barret the opportunity he was looking for, and as he and Professor Hemmingwell strode through the hangar, he commented casually, "I hate to say this, sir, but I don't like the way Troy has been acting lately."

"What do you mean, Dave?" asked Hemmingwell.

"I depend a great deal on instinct," replied Barret. "And as good as Troy's work has been, I feel the man is hiding something."

"Come now, Dave," snorted the professor. "I've known him a long time. I think you're being a little harsh."

As Barret shrugged and didn't reply, a troubled expression crossed Hemmingwell's face. "But at the same time," he said slowly, "if you have any reservations, I don't suppose it would hurt to keep an eye on him."

"Yes!" agreed Barret eagerly. "That's just what I was thinking."

They reached the workbench where Troy, a small man with powerful arms and shoulders, was working on a complicated array of wires and vacuum tubes. He looked up, nodded casually at the two men, and indicated the instrument.

"Here it is, Professor," he said. "All ready to go. But I had a little trouble fitting that coil where the blueprints called for it."

"Why?" Barret demanded. "I designed that coil myself. Isn't it a little odd that a coil I designed, and the professor O.K.'d, should not fit?"

"I don't care who designed it," said Troy easily. "It didn't fit where the blueprint indicated. I had to redesign it."

"Now, now," said Professor Hemmingwell, sensing trouble. "Take it easy, boys."

"Professor," Barret exploded, "I insist that you fire this man!"

"Fire me!" exclaimed Troy angrily. "Why, you space crawler, you're the one who should be fired. I saw you come back to the hangar the other night alone and...."

"Of course I did!" snapped Barret. "I was sent down here to get information about—" He stopped suddenly and eyed Troy. "Wait a minute. How could you see me down here? What were you doing here?"

"Why—I—" Troy hesitated. "I came down to check over some equipment."

"Why were you detained at the psychograph tests this morning?" demanded Barret.

"None of your business!" shouted Troy. "I was doing my job. That's all."

"I'll bet," snapped Barret. "Professor, here is your sabotage agent. Who are you working for, Troy?"

"None of your business," stammered Troy, seemingly confused. "I mean, I'm not working for anyone."

"There! You see, Professor!" shouted Barret.

"I think you'd better explain yourself, Pat," said the professor, looking troubled and suspicious. "Why were you detained so long this morning?"

"They were asking me questions."

"What kind of questions?" demanded Barret.

"I'm not allowed to tell you."

"What were you doing here the other night?" pursued Barret. "The night you saw me here."

"I came down to check our supplies. I knew that we were running short on certain equipment."

"What kind of things?" demanded the professor.

"Well, the timers on the oscillators," Troy replied. "I knew we would need them for the new units you and Commander Walters were planning."

"Guard!" shouted Barret suddenly. "Guard!" He turned and called to Roger and Astro, who were standing guard at the doors. They both came running up, their blasters held at ready.

"What is it?" demanded Astro. "What's going on here?"

"Arrest that man!" shouted Barret. Astro and Roger looked questioningly at Troy. They did not know him personally but had seen him around the hangar and knew that he worked closely with the professor and Barret.

Still vaguely distrustful of Barret's behavior, Astro turned to Hemmingwell. "How about it, Professor?" he asked. "Do we haul this guy in?"

Hemmingwell looked at Troy steadily. "Pat, you knew about that new unit I was building?"

"Yes, sir," replied Troy forthrightly. "I accidentally overheard you and Commander Walters discussing it. From what you said about it, I knew you would need new timers for the oscillators—"

Roger and Astro had heard about the vital unit that had not been destroyed, and realized that Troy was admitting to knowledge he shouldn't have had. Roger raised the blaster menacingly. "All right, buster!" he growled. "Move this way and move slowly."

"Professor," exclaimed Troy, "you're not going to let them—!"

"I'm sorry, Pat," said the professor, a dejected look in his eyes. "I have nothing to do with it now. You should have told me that you knew about the new unit. And the fact that you were here the night it was destroyed, well—" He shrugged meaningfully and turned away.

"All right, buster," growled Astro, "do you move or do I move you? It makes no difference to me."

Troy took a look at the blasters leveled at him and silently walked between them to the hangar door. Barret and Professor Hemmingwell remained at the workbench, following the trio with their eyes.

Later, after Troy had been safely locked in the Academy brig, Firehouse Tim Rush sat at his desk in the small security shack taking down the two cadets' reports.

"... And upon the orders of Dave Barret and Professor Hummingbird—" Roger was saying.

"Hemmingwell," snapped Firehouse. "*Hemmingwell*."

"—Hemmingwell"—nodded Roger with a wink at Astro—"we brought the suspect to the officer of the guard, Firehouse Tim Rush."

"Can that Firehouse, ya squirt!" growled Rush. "Only my friends can call me that. And you two are not in that classification."

"O.K., Fireman," said Roger. "I can call you Fireman, can't I? After all, you are a pretty hot rocket, and—"

"Get back to your posts!" roared Firehouse Tim in his loudest voice.

Roger and Astro grinned and hurried out of the small building. Before resuming their posts in the hangar, the two cadets stopped at an automatic soda dispenser. As they drank slowly, they looked around the hangar. The project was back in full operation now. The workers that had been cleared had heard about the arrest of their foreman, and there seemed to be more talk than work.

Dave Barret walked over to Roger and Astro. Nodding in a surprisingly friendly fashion, he said, "I want to commend you two boys on your good work a while ago. I think that traitor would have tried anything if you hadn't been there. He might even have tried to kill me or the professor."

Roger and Astro mumbled curt thanks for the compliment.

Barret looked at them quizzically. "No need for us to be angry with each other," he said smoothly. "I realize that when we had our two little run-ins you were carrying out your duties, and I apologize for behaving the way I did. How about it? Can we shake and forget it?" He held out his hand. Astro and Roger looked at each other and shrugged, each in turn, taking the young man's hand.

"You know," said Barret, "I've heard a lot about you three cadets of the *Polaris* unit. Especially you, Manning. I understand that you know almost as much about electronics as your instructor at the Academy."

Roger grinned shyly. "I like my work."

"Well, blast my jets!" roared Astro. "That's the first time I have ever heard Manning accept a compliment gracefully." The big Venusian turned to Barret. "He is not only the finest astrogator in the whole high, wide, and deep," he said sincerely, "but he could have had a wonderful career in electronics if he didn't want to be a rocket jockey with me and Corbett."

"Is that so?" murmured Barret politely. "Well, Manning, you must have some ideas about the work that's going on here."

"I sure have," said Roger. "And I see a lot of things here that could be done a lot easier."

"Hum," mused Barret. "You know something. I think I might be able to relieve you two of guard duty. After all, if Corbett can get out of it, I don't see why I can't put your talents to work for us here. How about it?"

Both boys almost jumped straight up in the air.

"That would be terrific, Mr. Barret!" exclaimed Astro.

"Call me Dave, Astro. We're friends now, remember?"

"Sure, Dave," stuttered Astro. "But listen, we'd do anything to be taken off this detail and get Firehouse off our necks."

Barret smiled. "All right. I'll see what I can do." He turned and walked off, giving them a friendly wave in parting.

Astro and Roger could hardly believe their luck. They returned to their posts and took up guard duty again with light hearts.

In his small private office, Barret watched them through the open door to the hangar and then turned to his desk, to pick up the recently installed private audioceiver. He asked for a private number in a small city on Mars, and then admonished the operator, "This is a security call, miss. Disconnect your circuit and do not listen in. Failure to comply will result in your immediate dismissal and possible criminal prosecution."

"Yes, sir," replied the operator respectfully.

There was a distinct click and Barret heard a gruff voice.

"Hello?"

"This is Barret," the young designer whispered. "Everything's going fine down here. I just had the foreman arrested to throw them off the track, and I have a plan to get rid of two of these nosy cadets." Barret listened a minute and then continued. "Connel and the other cadet, Corbett, have gone to Mars to inspect the receivers. Don't worry about a thing. This ship will never get off the ground. And if it does, it will never fire a projectile."

Barret hung up and returned to the open door. He waved at Roger and Astro on the other side of the hangar and the two cadets waved back.

"Like lambs to the slaughter," he said to himself.



CHAPTER 7

"Sound off, Corbett!"

Seated in the pilot's chair on the control deck of the rocket cruiser *Polaris*, Major Connel bellowed the order into the intercom as he scanned the many dials on the huge control board.

"One minute to touchdown, sir," reported Tom over the intercom from the radar bridge of the *Polaris*.

"One minute to touchdown," repeated Connel. "Right!"

Connel reached for the switches and levers that would bring the giant ship to rest on the red planet of Mars. Even after his many years in the Solar Guard and thousands of space flights, landing a rocket ship was still a thrill to the veteran spaceman, and knowing that he had a good man on the radar deck made it even more exciting and demanding of his skill.

"Decelerate!" yelled Tom over the intercom.

Connel shut down the main drive rockets and at the same time opened the nose braking rockets. "Braking rockets on!" he yelled.

"One thousand feet to touchdown," said Tom.

Connel watched the dials spinning before him.

"Seven hundred and fifty feet to touchdown," reported Tom.

"Keep counting, Corbett!" yelled Connel enthusiastically.

"Five hundred feet!"

Connel quickly cut back the nose braking rockets and again opened the main drive rockets as the ship plummeted tailfirst toward the surface of Mars.

"Two hundred feet!" came the warning call over the intercom.

Connel glanced up at the teleceiver screen over his head that showed the spaceport below. The concrete runways and platforms were rushing up to meet the giant ship. He opened the main rockets full.

"Seventy-five feet! Stand by!" yelled Tom.

Connel's hands flashed over the control panel of the ship, snapping switches, flipping levers, and turning dials in an effort to bring the ship to a smooth landing. There was a sudden roar of rockets and then a gentle bump.

"Touchdown!" roared Connel.

He flipped off the main switches on the control board, spun around in his chair, and noted the time on the astral chronometer. "Touchdown Marsport, 2117!" he announced.

Tom clambered down the ladder from the radar bridge and immediately noted the time of arrival in the logbook. He turned around and saluted the major sharply. "All secure, sir," he said.

"Congratulations on a smooth trip, Corbett," Connel said. "And thanks for letting me take her in. I know it's unusual to have the senior officer take over the ship, but once in a while I get the urge to put my hands on those controls and—well—" Connel paused, fumbling for words.

Tom was so startled by the major's stumbling attempt to explain his feelings, he felt himself blush. He had always suspected the major of being a rocket jockey at heart and now he was certain. But he would never tell anyone, not even Roger and Astro about this incident. It was something he knew that he himself would feel if he ever got to be as old as Major Connel and had reached his position. There passed between the officer and the cadet a sudden feeling of mutual understanding.

"I understand, sir," said Tom quietly.

"Dismissed!" roared Connel, recovering his composure again, and very conscious that he had exposed his innermost feelings to the cadet. But he didn't mind too much. Tom Corbett had proven beyond the shadow of a doubt that he had the stuff true spacemen are made of, and because of this, Connel could feel as close to him as a man near his own age. There was never a breed of men who were drawn so close together in their love of work as the spacemen and there was no need for further explanation.

When they had climbed out of the *Polaris* and stepped on the landing ramp at Marsport, Connel and Tom saw that the ground crews were already checking over the afterburners and exhaust tubes of the ship. A young Solar Guard lieutenant, wearing a decidedly greasy uniform, snapped to attention before Connel.

"Lieutenant Slick at your service, sir," he announced.

"Lieutenant," bawled Connel, "your uniform is filthy!"

"Yes, sir, I know it is, sir," replied the young officer. "But I was overhauling a firing unit this morning, sir, and I guess I got a little dirty."

"That is enlisted man's work, sir," stated Connel. "You are an officer."

"I know, sir, but—" Slick stammered. "Well, sir, once in a while I like to do it myself."

Tom turned away, hiding a smile. The young officer was expressing the same feelings Connel himself had uttered just a few minutes before. Connel cleared his throat, and with a sidelong glance at Tom and a wink, dismissed the young officer, ordering him to have a jet car sent for them right away.

"Take mine, sir," said the young officer, happy to have escaped Connel's wrath so easily. It was not too long ago that he had been a cadet at the Academy and he remembered all too clearly what Connel could do when he was mad.

When the jet car was brought up, Tom slipped behind the wheel, and with Connel seated beside him, he sent the sleek little vehicle roaring across the spaceport to the main administration building.

Inside the gleaming crystal building, Connel and Tom were escorted by a Space Marine guard to the office of the spaceport commander, Captain Jim Arnold. He and Connel knew each other well, and after quick greetings and the introduction of the young cadet, Connel asked for the latest reports on the projectile receivers.

"Lou, I've got good news for you," announced Arnold. "We've completed the receiver ramps for the test. As soon as your ship is ready to fire her cargo projectiles, we can receive them."

Connel's face showed the surprise he felt. "Why, Jim, that's the most amazing news I've ever heard!" he exclaimed. "How did you do it?"

"Through hard work," replied Arnold, "and the efforts of a young officer named Slick. He handled the whole thing."

"Slick!" exclaimed Connel. "I just bawled him out for wearing a dirty uniform."

"He's responsible for our success," asserted Arnold. "And what's more, those receivers can be taken apart and reassembled again in less than ten minutes."

"Incredible," gasped Connel. "I've got to see those things right away. Come along, Corbett."

Tom followed the major out of the office and back to the jet car. They were about to drive off to the opposite end of the field when they heard someone shout to them. Tom stopped the speedy little car and Connel turned around to see who had called them.

Carter Devers rushed up and greeted the Solar Guard officer enthusiastically. "Major, this is a surprise."

"Hello, Carter. What are you doing here?" Connel asked bluntly.

"Had some business here on Mars," said Devers. "I've finished and I'm on my way back to Earth. You wouldn't, by any chance, be going back soon, would you? I saw the Solar Guard cruiser come in and one of the attendants told me that they were preparing it for immediate blast-off—"

"Of course, Carter," Connel said briskly. "Get in. We're just going over to inspect the receivers and then we'll be heading back."

Devers jumped into the jet car and Tom headed across the broad expanse of the spaceport.

Connel turned to Devers and said enthusiastically, "Can you imagine, Devers? Some young officer here at Marsport has worked out a way to assemble and transport the receivers in a fantastically small amount of time."

"That's amazing," said Devers. "I'd like very much to see them." He looked at Tom and said, "Incidentally, who is your young friend?"

"Oh, sorry," replied Connel. "This is Cadet Corbett of the *Polaris* unit. No doubt you've heard of them. He and his unit mates manage to get into more trouble than all the monkeys in the Venusian jungle."

Carter laughed. "I've known Lou Connel long enough to know that when he says something like that about you, son, he thinks very highly of you."

"Thank you, sir," replied Tom, not knowing what else to say.

While Connel and Devers talked of the problems surrounding the projectile operation, Tom concentrated on his driving. He was following directions given him by Jim Arnold to reach the testing grounds and this made it necessary for Tom to drive right through the center of the spaceport, weaving in and out of the dozens of spaceships parked on the concrete ramps.

Tom swept past them, driving expertly, heading toward a group of concrete blockhouses enclosed by a fence which he knew would be the testing area. Beside the fence, a short, stubby-nosed spaceship was loading cargo, and beneath the vessel, two huge jet trucks were backing into position. Tom steered the car up to the gate and stopped at the signal of an armed guard. Connel, Devers, and Tom stepped out of the car and waited for a minute, and then young Lieutenant Slick appeared, wearing a clean uniform.

Slick checked their names off against a list he carried and then drew Connel to one side. "I'm sorry, sir," he said, just out of Tom and Dever's hearing, "I can't allow the cadet inside this area."

"Why not?" asked Connel. "I'll vouch for him."

"I'm sorry, sir," said Slick. "Those are my orders. I can let you and Mr. Devers in, but not Cadet Corbett." He showed Connel a list of names: Connel, Strong, Hemmingwell, Walters, Devers, and Barret. They were the only names on it.

Connel nodded. "I understand," he said and turned to Tom. "You'll have to stay here, Corbett," he called. "Wait for me in the car."

"Yes, sir," replied Tom and hopped back in the jet.

He backed out through the gate, pulling up alongside the fence near the stubby-nosed freighter. When Connel and Devers, escorted by Slick, had disappeared behind a blockhouse inside the restricted area, Tom casually walked over to watch the loading operation of the spaceship. A few of the workers stopped when he walked up, and recognizing his cadet uniform, greeted him warmly.

"Space Cadet, eh?" said one of the men. "Sure wish I could get my boy in the Academy."

"Me too," said another man. "All I hear from morning until night is Space Academy—Space Academy."

Tom smiled his appreciation of their admiration. While he answered their questions about the training school of the Solar Guard, they continued working. After a while the conversation turned to the restricted area behind the fence.

"Some pretty important work going on in there," said one of the men. "But how come they wouldn't let you go in?"

"I haven't been cleared by security," replied Tom. "It's top secret."

"Secret," said a man who had just joined the group. Tom had noticed him before, climbing out of one of the huge jet trucks parked near the gate. "Why, there ain't nothing secret about what's going on in there," he continued.

"Why do you say that?" asked Tom alertly.

"Why, we all know about it, Cadet," said one of the first men Tom had spoken to. "They're building receivers for cargo projectiles."

Tom gulped in surprise. "But how did you know?" he asked.

"Why, it's the only thing we've been talking about down at the garage and at Sloppy Sam's, the jet-truckers hangout," replied the trucker. "If this thing works, surface transportation will be finished."

"That's right," asserted another worker. "The whole industry will be wiped out overnight. Nobody will have anything trucked any more. Cargo'll be loaded into a projectile and shot off into space to a passing freighter. Then the freighter carries it to its destination and shoots it back down to a receiver."

"But how could you know all this?" asked Tom. "It is one of the Solar Guard's most closely guarded secrets."

"It's all over Mars," declared the truck driver with a derisive laugh. "Why, everybody knows it."

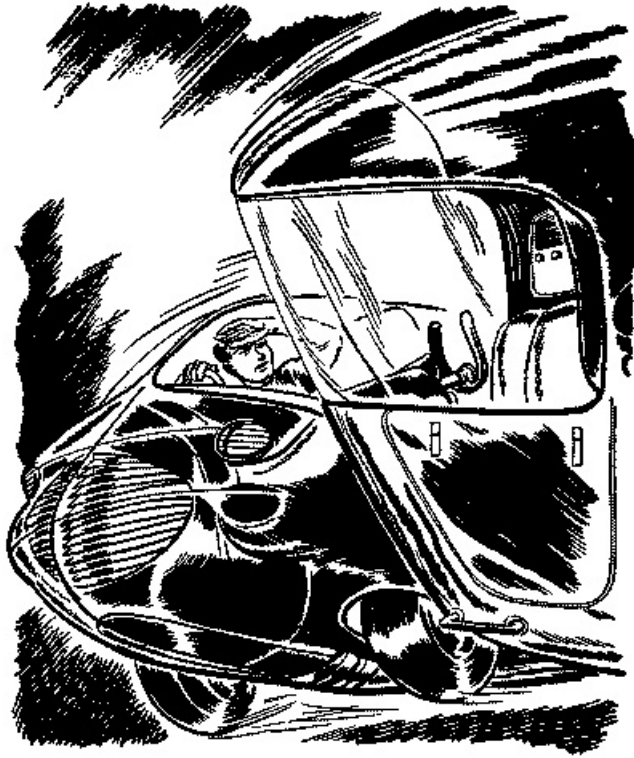
Suddenly one of the men yelled and pointed toward the fence. The jet truck parked near the gate was rolling forward slowly. As Tom and the men watched in horror, the giant vehicle crashed through the fence and rolled into the restricted area, picking up speed.

In a flash Tom was inside the jet car, driving right through the hole in the fence and speeding after the huge machine. Around him, guards were running after the truck, shouting frantic warnings. Far ahead of him, Tom saw Major Connel and Devers standing near several receivers lined up outside a blockhouse. The truck was rolling straight toward them. Hearing the shouts of alarm, the two men turned and saw their danger. Devers immediately jumped into the safety of the

blockhouse, but Connel stumbled and fell heavily. Tom's blood ran cold. He saw that the major had struck his head against one of the receivers and he lay on the ground, dazed and unable to move.

Tom jammed the accelerator of the tiny jet car to the floor and shot ahead like a rocket. He was alongside the truck now, but the distance between the huge machine and Connel was narrowing rapidly. Tom clenched his teeth and urged the little car on faster. He knew that there was not enough time for him to jump into the truck and pull the brake. There was only one thing he could do.

Regaining his senses, Connel tried to crawl to safety, but there was no time. He braced himself for what he knew would be instant death, and then to his amazement he saw Tom's jet car swerve sharply in front of the runaway truck.



Tom swerved the jet car in front of the runaway truck

Note

There was a wrenching crash of metal, a shrill scream of skidding tires, climaxed by a thunderous roar. After that, deathly silence.

For a second Connel stood frozen in horror, staring at the overturned truck and the tangle of twisted metal that was the jet car. Then he lunged forward with a frantic cry.

"Corbett! Corbett!"



CHAPTER 8

"Tom! Tom!"

Connel knelt beside the limp form of the Space Cadet, calling frantically, praying that the boy would be miraculously unhurt, yet fearing the worst. A few moments later Tom groaned and opened his eyes.

"Did I—did I stop the truck?" he asked weakly.

"You sure did, son!" said Connel, breathing a sigh of relief. "And thank the lucky spaceman's stars that you're all right. I don't see how you got out alive."

Tom sat up. "I jumped from the jet car at the last minute," he said. "I guess I must have bumped my head." He looked down at his torn uniform. "Wow," he said. "Look at me."

"Don't worry about it." Connel laughed. He turned to Lieutenant Slick who had just rushed up.

"Lieutenant, I want a complete check on the men who were standing outside the fence when that truck ran away."

"Yes, sir." The young lieutenant patted Tom on the shoulder. "Good work, Cadet," he said and started away.

Tom grinned his thanks at the young officer and struggled to his feet. "Sir," he said to Connel, "I think I should explain something about that truck."

"The truck!" cried Connel. He turned and called, "Lieutenant, come back here." The young officer turned back. "Go ahead, Tom," said Connel.

While Tom told his story of the truck having been parked near the gate, and having started to roll by itself, Connel and Slick listened intently. Quietly Devers joined them. Finally, when Tom had finished, Connel rubbed his chin thoughtfully and stared at the truck which was being examined by a swarm of guards.

A few moments later the sergeant in command reported to Connel that they had found a worn clutch plate that could have slipped and caused the truck to roll of its own accord, especially if the motor was turning over.

Connel nodded and then ordered, "Get the driver over here."

The man that had spoken to Tom about the secret project came forward under guard. He was thoroughly frightened and Connel was aware of it. "Relax, friend," he said. "I just want to ask you one question."

"Yes, sir," gulped the truck driver.

"Was there anything wrong with your truck?" demanded Connel.

"Yes, sir," replied the driver. "I had a slipping clutch."

Connel turned abruptly to Lieutenant Slick. "All right, Slick, release this man and get that fence back up. I'm satisfied that it was an accident."

"Yes, sir," replied Slick, and left the group with the grateful driver.

Connel relaxed for the first time and turned to Carter Devers who had been standing by silently. "Well, Carter," he said, "see what I meant about the *Polaris* unit getting into trouble! Blast it, if they don't start it, they sure can finish it." He turned to Tom. "Son, you deserve some time off. Go back to the Spacelanes Hotel in Marsport and get yourself a room. Just forget everything and relax. And get a new uniform, too."

"And send the bill to me," Devers suddenly spoke up. "It's the least I can do."

"Thank you, sir," said Tom. "I could sure use a little sleep."

Hitching a ride on a jet sled, Tom rode over to the administration building where he managed to clean up enough to make himself presentable at the hotel. Later, as he rode along the curving canal in a jet cab into the main section of Marsport, he relaxed for the first time and enjoyed the sights.

The city of Marsport was built in a hurry—at least, the old section of the city was. Like many other planets, when first colonized by the early great conquerors of space several hundred years before, the city grew out of immediate need, with no formalized plan.

Years later, when the Solar Alliance was formed and there was uniform government all over the solar system, the citizens of Mars began to regard their ugly little capital with distaste. A major effort was made to clean up its squalid appearance and huge cargoes of Titan crystal were shipped to Mars for modern construction. Now, as Tom Corbett rode in comfort

along a speedway bordering one of the ancient canals, he approached the city with a vague feeling of awe. Gleaming towers, reflecting the last rays of the setting sun, loomed just ahead of him, and the wavy lines of heat rising out of the sandy deserts seemed to make the buildings dance. It was a sunset ballet that never failed to thrill even the oldest Martian citizen.

At the magnificent Spacelanes Hotel, Tom was greeted with the greatest respect. Already his feat of stopping the runaway truck had been announced over the stereo newscasts, and when he asked the location of the nearest supply store to buy a uniform, one was immediately brought to his room by the manager.

"But how did you know?" asked Tom, astounded.

The manager showed Tom a photograph of himself in his ragged clothes, taken while he was talking to Connel. In the background was the remains of the jet car.

"Major Connel called and said you would be staying here," said the manager. "From the looks of you in this picture, we knew you would need a new uniform."

"And you've got my size!" exclaimed Tom, holding up the gleaming new blouse.

"We called the Academy." The manager smiled. "We wanted to be sure. Incidentally, there is a message for you." The manager handed Tom a typed space-o-gram and left. The cadet ripped it open and smiled as he read:

trying to hog all the stereo space you can while you leave the real competition at home, you rat! congratulations!

astro and roger

Laughing to himself, Tom left the message on the desk, stripped off his torn, dirty clothes, and stepped into a hot, refreshing shower. Half an hour later he was digging into a thick steak with French fried potatoes.

After a third helping of dessert, the cadet stretched out on the bed and closed his eyes. But sleep would not come. The incidents at the spaceport that afternoon kept flashing through his mind. He tossed restlessly, something he couldn't quite remember was tugging at the back of his mind.

He retraced the events of the day, beginning with the landing of the *Polaris* and ending with the crash of the jet truck.

Suddenly he sat up straight. Then quickly he jumped out of bed, hurriedly threw on the new uniform, and rammed his feet into the soft space boots.

Ten minutes later, having used the service elevator to avoid the lobby, he stood on the corner of Lowell Lane and Bulker Avenue. He hailed a passing jet cab, and climbing in, asked the driver, "Do you know a restaurant or a bar called Sloppy Sam's?"

"Sure," said the driver. "That where you want to go?"

"As fast as this wagon will get me there," replied Tom.

"Why?" asked the driver strangely. "You look like a nice kid. That joint's for—for—well, it ain't for a Space Cadet," he concluded lamely.

"The first thing they teach us at the Academy, buddy," said Tom impatiently, "is how to take care of ourselves, and the second thing is to mind our own business."

"Right," said the driver, tight-lipped. He slammed the car into motion and the force hurled Tom back in his seat.

Tom grinned. He hadn't meant to sound so tough. He leaned over and apologized. "I'm looking for an old friend. Someone told me he drives a truck and he might be there."

"Forget it, kid," said the driver. "I wouldn't want you in my cab if you couldn't take care of yourself. We pay taxes to teach guys like you how to protect us. A lot of good it would do if you were scared of a taxi driver."

Tom laughed and settled back in his seat to watch the city flash past.

A half hour later the curly-haired cadet became aware of the change from the magnificent crystal buildings to the dirty and streaked buildings of the poorer section of the city. And with the change, Tom noticed a difference in the people who walked the streets. Here were men who wore their coat collars high and their caps pulled low, and who would duck into the shadows at the approach of the cab and then watch it with dark, silent eyes.

"Here ya are, Cadet," the driver announced, stopping in front of a small, dirty building. "Sloppy Sam's."

Tom looked out. The door was open and he could see inside. Sawdust covered the floor, and the tables and chairs were old and rickety. The men inside were the same as those he had seen on the street, tough-looking, hard, steely-eyed. Tom looked at the faded sign over the door. "That says *Bad* Sam's," he protested.



**The men inside were tough-looking
and steely-eyed**

Note

"Used to be called Bad Sam's," replied the driver. "As a matter of fact, I think it's still officially Bad Sam's. You see, Sam used to be a real tough fella. Then one day a fella came along that was tougher than he was and beat the exhaust out of him. Sam went to pot after that. He got fat and lazy, and his place here got dirtier and dirtier. Finally everybody started calling him Sloppy Sam and it stuck."

"Quite a story." Tom laughed. "What happened to the fellow that took Sam over the hurdles?"

"He's got a joint on the other side of town called Bad Richard's. But they're friends now. Get along fine."

Tom paid the driver and stood on the sidewalk, watching the silver cab shoot away into the darkness. Then he took a deep breath and slowly moved toward the open door of Sloppy Sam's.

Inside, Tom saw that most of the customers were lined up at the bar, drinking rocket juice, a dark foul-tasting liquid that Tom had sipped once and vowed he would never try again. But as he looked around, he didn't think it was the type of place you could order anything milder, so he walked up to the bar and ordered loudly, "A bucket of juice."

Some of the men at the bar turned away from the stereo screen to look at the newcomer. They eyed the crisp, clean uniform narrowly, and then turned silently back to the play on the screen.

The husky bartender placed the small glass of dark liquid in front of Tom. "Twenty credits," he announced in a hoarse voice.

"Twenty!" exclaimed Tom. "Don't give me that rocket wash! It's five credits a shot."

"To a Space Cadet that wants to keep his reputation, Corbett," replied the burly man, "it's twenty."

Tom realized that the man had seen his picture on the stereo news that afternoon and that it would be impossible to get out of paying this blatant form of blackmail. He handed over the money and picked up the glass. He sipped it to keep up appearances but even the few drops he allowed to trickle down his throat almost made him gag. He gasped for breath. Whatever information he might be able to get here, it wasn't worth another swallow of that stuff.

He stood at the bar for nearly half an hour, watching the stereo and waiting. When the show was over, the men turned back to the serious business of drinking. Two of them drifted over close to Tom and looked him up and down. After a whispered conversation, they turned to him and pointed to his drink, the same one he had bought and had not touched since.

"Drink up, mate," said the nearest man, a tall, heavy-shouldered man with a dark beard, "then join us in another one."

"No, thanks," said Tom. "One's my limit."

The two men laughed. "Well, I'll say this for you, lad, you're honest about it," said the tall one. "Most squirts coming in here try to put on they can take the stuff and then they wind up in the gutter."

"That's right, Cag!" said the other man, laughing.

"What are you doing in here, Cadet?" asked the man called Cag.

"Looking for a guy."

"What's his name? Maybe we know him."

"Yeah, we might," chimed in the other. "We know just about everybody that comes in here."

"Maybe he don't want to tell us, Monty," said Cag.

"I don't know his name," said Tom. "I just met him today and he mentioned this place. I wanted to talk to him about something."

"Where did you see him?"

Tom paused. It was only a chance remark that the driver of the jet truck had made and it was a slim chance that these two men might know him. He decided to risk it. "He's a jet trucker. I saw him out at the spaceport today."

The two men looked at each other. "Little guy, with a sort of funny twitch in his eye?" asked Cag.

"Yes," replied Tom. "That's him. Know him?"

"He hangs out in a joint across the street," said Monty. "Come on outside. I'll show you where it is. And his name's Pistol, in case you want to know."

"Pistol," said Tom. "That's an odd name."

"Not when you consider he carries a pistol all the time," snorted Cag.

Tom and the two men walked to the door and out into the street.

"What do you want to see him about, anyway?" asked Monty, as they walked to the corner.

"Just wanted to talk to him about the jet-trucking business."

"What about it? We're truckers, me and Cag, we could probably tell you a lot more than Pistol."

"Maybe," said Tom. "But I want to talk to Pistol."

They stopped at the corner and Monty stepped off the curb into the street. "See that light down there," he said, pointing down the block, "the one just above the door?"

Tom turned to look. "Where—?"

He suddenly felt a sharp jolting pain in the back of his head and then everything went black.

"Nice work, Cag," commented Monty.

"What'll we do with him?" asked Cag.

"Throw him in the back of the truck and get outta here," said Monty, pulling Tom's limp form into the shadows of an alley. "I'll get in touch with the boss and tell him what's happened. And you better send out word to get Pistol. He must know something."

"Right," said Cag. "Gee, Corbett's getting his nice clean uniform messed up."

Dirty gutter water flowed over Tom in the dark Martian alley as the boy lay deathly still.

CHAPTER 9

"What!" exclaimed Major Connel. "Give me that again."

The messenger from the Solar Guard headquarters on Mars repeated the message. "Cadet Corbett has not been in his hotel since last night, sir," he said. "He was seen leaving the service entrance at about 2100 hours. There is no report as to his whereabouts, sir."

Standing at the foot of the ladder leading to the main air lock of the *Polaris*, Major Connel turned to Carter Devers angrily.

"This is the end!" he shouted. "I've had as much of this foolishness as I'm going to take. When that young space brat comes back, I'm going to throw the book at him."

"Now, now, Major," said Devers. "I wouldn't be too hard on the lad. How do you know that he isn't in some kind of trouble?"

"That's just it," growled Connel. "One of those three is always in trouble."

"He saved your life," reminded Devers.

"I'm well aware of that," replied Connel stiffly. "But it's a personal debt. It has nothing to do with his behavior as a cadet. I ordered him to go to that hotel and rest, not go skylarking all over Marsport. This is typical of the whole unit's attitude."

"But you said that they were the best crew you ever had," insisted Devers.

"I know, but what's worse is that *they* know it! Blast it, Carter, it isn't easy to say the things I've said about Corbett! He's a fine lad. But look at it this way. I have to return to Atom City immediately. Corbett may be in trouble, right?" Devers nodded. "Well, how do you think I feel, blasting off and leaving him?"

Devers nodded his understanding as Connel continued furiously, "And furthermore, I have more important things to think about than wet-nursing a cadet."

At that moment Connel noticed a jet car racing across the spaceport toward the *Polaris*. As it drew near, he saw the insignie of the Solar Guard on the hood. His eyes widened hopefully for a second. "Humph," he grunted, "this may be him now!"

"If it is," cautioned Devers, "go easy on the boy."

"We'll see, we'll see."

The car screamed to a stop in front of them, the plastic blister was thrown back, and another Solar Guard messenger climbed out, saluting Connel smartly.

"Message from Solar Guard headquarters, Major Connel," he said.

Connel took the paper and ripped it open. "Excuse me, Carter," he muttered and stepped to one side to read the note hurriedly.

hemmingwell's chief foreman arrested as saboteur. advise you return immediately. walters

Dashing up the metal ladder, Connel roared the order to the waiting ground crew. "Stand by to blast off."

Carter Devers scrambled up into the giant ship after the Solar Guard officer, and in less than a minute later, all ports were sealed and the *Polaris* was ready for space. In the pilot's chair, Connel called traffic control for blast-off, and at the same time prepared to raise ship.

By the time Devers had strapped himself into the copilot's chair next to Connel, the ship was quivering with leashed power. Suddenly Connel roared the familiar call for space.

"Blast off, minus five, four, three, two, one, *zero*!"

The great ship literally exploded off the ground, and within seconds, was rocketing through the thin atmosphere above Mars on course for Earth, far across the deep black velvet void of space, but leaving Tom Corbett, her true commander, behind.

Captain Steve Strong and Commander Walters watched grimly as the *Polaris* landed on the Academy spaceport. They had been in contact with Connel during his trip back to Earth and had already told the bluff major of still another incident that had taken place at the Academy while he was gone.

Roger and Astro had stolen a rocket scout and disappeared.

"I don't get it, sir," sighed Strong. "Manning and Astro blowing wide open, Corbett disappearing—" He shook his head. "It doesn't make sense."

"Perhaps not," said Walters. "But those three are really in trouble now. Connel won't stand for this kind of behavior."

"Do you think that he'll go so far as to ask for a court-martial?"

Walters hesitated. "I hate to say this, Steve," he said finally, "but if Major Connel doesn't, I will be forced to. No other unit has had more of an opportunity to prove itself than the *Polaris* unit. And every time, something like this happens."

"But suppose they have good explanations," insisted Strong.

"It would have to be better than anything they've had before," replied Walters. "Frankly, I cannot see how that is possible."

Walters climbed into his jet car and Strong followed, biting his lip.

The car shot across the field to the now grounded *Polaris*, pulling alongside it just as Major Connel and Carter Devers climbed out of the open hatch. Without even the courtesy of a greeting, Connel roared, "What's this about those two cadets stealing a ship?"

"Let's talk about that later, Lou," said Walters. "Climb in. We've got something more important to discuss. The saboteur."

Devers stepped forward. "This is no place for me, I know," he said. "I'll leave you here. And thanks for the lift, Major."

Connel grunted his acknowledgment and climbed into the car as Strong turned to Devers.

"There was a message for you, Mr. Devers," said the Solar Guard captain. "You're to get in touch with your Atom City office immediately."

"Thanks, Steve," said Devers, and with a wave of his hand to the others walked away.

As the jet car raced back to the Tower of Galileo, Walters brought Connel up to date on the incident at the hangar leading to the arrest of Pat Troy. When they reached Walters' office, high in the tower, Troy was ushered in by two guards.

"Sit down!" barked Connel, taking command of the situation.

Troy walked to the center of the room and sat down in the indicated chair, facing Walters, Connel, and Strong.

"We'd like to get to the bottom of this as soon as possible, Troy," began Connel. "So I suggest that you tell us the truth and save us the trouble of pulling it out of you."

"I will answer all of your questions to the best of my ability, sir," said Troy calmly. "And I will tell the truth at all times."

"Very well," snorted Connel. "Now, who are you working for?"

"Professor Hemmingwell," replied Troy.

"Stow that," snarled Connel. "Who paid you to sabotage the ship?"

"I have not committed any sabotage for anyone, sir."

"Then you deny that you wrecked that firing unit?"

"Yes."

Walters suddenly leaned forward. "But you do not deny that you knew about the special unit that Professor Hemmingwell had created," he said. "A unit that only he and I knew about?"

"I knew about the unit—yes, sir," replied Troy.

"How could you?" demanded Walters.

"I overheard you both discussing it one day."

"Where?"

"In the hangar," said Troy. "You and Professor Hemmingwell were talking on the main deck while I was inside—what will be the radar deck—working. I heard you talking about the unit, and after you left, I happened to find a blueprint on the table. It coincided with what you had been talking about. I looked at it and then thought nothing of it. A few minutes later the professor came running in and took the blueprint away."

"Did he ask you if you had read the print?" asked Connel.

"No, sir," replied Troy. "If he had, I would have told him that I had."

"Now," said Connel, "did you have anything to do with the so-called accident to the oscillating timing device?"

"No, sir."

"Do you know who did?"

"No, sir."

"We can put you under drugs, you know, and get the truth out of you," warned Connel.

"You'll get the same answer, sir," Troy calmly replied.

Walters, Strong, and Connel moved to one side of the room and talked in low tones while Troy remained seated.

"Well," said Walters, "do we give him drugs or not?"

"I may be sticking my neck out, Commander," said Steve, "but I think that he's telling the truth."

"Same here," said Connel. "I would suggest that we let him loose, and even let him go back to work, but keep an eye on him."

"And you wouldn't give him drugs now?"

"No. I'd give the benefit of the doubt to a man any time," said the hardened space major.

"All right," said Walters. He turned back and told Troy he was free, but that he was not to leave the restricted area. And he was only permitted to work on less critical projects. "Do you have anything to say?" Walters asked.

Troy smiled at them and shook his head. "No, sir. That's fine with me," he said. "And I'll keep my eye open for the real saboteur—"

"That won't be necessary!" snapped Connel. "We're capable of handling our own detective work."

Troy grinned again. "Very well, sir," he said.

Connel dismissed the guards and the foreman walked out of the office a free man.

Connel and Walters turned to discussing the installation of the receivers on Mars, with Connel lauding young Lieutenant Slick highly. "That boy deserves a promotion in rank," he stated.

Walters nodded. "I'll put his name on the list at the end of the year," he said. "If he has done everything you say he has, he deserves it."

Steve Strong stood to one side, waiting impatiently for the two older men to finish their conversation before asking about Tom Corbett. At the same time, he was a little fearful of bringing up the subject of the *Polaris* unit, in the face of what Astro and Roger had just done. It was not an easy thing to do, but at the first opportunity he broke into the conversation with a direct question to Connel.

"Major, is there any doubt in your mind about Corbett's disappearance being an accident or do you—"

Connel cut him off. "Do I think he's AWOL?"

Strong nodded silently.

"Steve," said Connel patiently, "I know how you feel about those three boys, but tell me, how long can this go on? They constantly take off on their own, without authorization—"

"But they usually have a good reason," Strong interrupted quickly.

"Then why don't they give us the reason first?" Connel shot back.

"What Lou is trying to say," interjected Walters quietly, "is that Corbett, Manning, and Astro have time and time again committed us to take action, to get them out of situations that they initiated. It's time they were stopped! They are only one unit in this Academy, not the whole works."

"Then I guess you mean"—Strong hesitated, a lump in his throat—"it will be the end of the unit when they get back?"

"If they get back," snapped Connel, "I intend to see that all three receive solid disciplinary action."

"Very well, Major," said Strong. He rose and addressed the commander. "I request permission for emergency leave, sir, commencing now."



"Permission denied!" said Walters. "This is exactly what I've been talking about, Steve. You want to leave to go to Mars and look for Tom when we need you here on the project."

Strong's face suddenly turned white. And then, for the first time in his career, he ignored military courtesy and turned to leave without the courtesy of a salute or permission to do so. Connel almost called him back, but Commander Walters put a restraining hand on the major's arm.

"Think of it this way, Lou," he said. "If you wanted something you believed to be right, and it was denied you, how would you feel?"

"I'd very likely do the same thing," snapped the major. "And I'd get my rockets busted for it by my commanding officer!"

Walters grinned and pulled the major back to the desk where they continued their discussion of the receivers on Mars.

They had no sooner begun their discussion when the sliding door opened and Professor Hemmingwell burst into the room, his smock flying behind him, his hair ruffled and eyes wide with fright.

"The ship! The ship!" he cried out. "Someone has blown up the whole control panel of the ship!"



CHAPTER 10

"It will take weeks to repair it!"

Professor Hemmingwell stood on the main deck of the giant spaceship staring sadly at the mess of wires and tubes, controls and gauges, switches and filaments, all shattered and useless.

"When did it happen?" demanded Connel.

"Less than half an hour ago," replied Dave Barret. "Professor Hemmingwell and I were down at the far end of the hangar. The men had just left for the day and we were planning the work for tomorrow."

"Then what happened?" demanded Connel. "Wait, don't answer yet!" He stopped himself and turned to a Space Marine standing nearby. "You! Can you work an audio recorder?"

"Yes, sir," replied the Marine.

"Then get a machine up here on the double and take down everything that's said."

"Yes, sir," said the Marine and left the ship. Connel silently began inspecting the wreckage. It was ten times as serious as the first sabotage attempt.

Barret, Commander Walters, Professor Hemmingwell, and Captain Strong watched the major, their teeth clenched, eyes clouded with anger. Where the destruction of the first unit could have been called an accident, here was tangible evidence of a deliberate attempt to stop the whole project. The Space Marine, accompanied by Firehouse Tim Rush, returned five minutes later with the audio recorder and set it up for operation.

Connel took the small needlelike microphone in his hand and spoke into it as the reel of sound tape unwound slowly.

"This is a preliminary inquiry into the sabotage of the control deck of spaceship XX, Operation Space Projectile," he said. "This is Major Lou Connel, interrogator!" He paused and nodded to Barret who stepped forward. "My first witness will be Dave Barret." Holding the microphone close to the young engineer's mouth, Connel said, "Tell us everything you know of this incident."

Barret spoke slowly and carefully, describing how he and Professor Hemmingwell had been at the other end of the hangar when the explosion had occurred. Professor Hemmingwell had immediately run out of the hangar to inform Commander Walters, leaving Barret alone to check the damage. "Then you and Commander Walters and the Space Marines showed up, sir," he concluded. "That's all I know."

"All right," said Connel and turned to the professor. "Your statement, Professor Hemmingwell."

"It happened just about the way Dave said," Hemmingwell began. "Except for one thing. I cannot see why there weren't any guards at their posts this afternoon. We were without any men at the entrances for nearly an hour. Anyone could have slipped into the hangar and planted the bomb."

"Why weren't the entrances guarded?" snapped Connel, looking directly at Firehouse Tim Rush.

"Cadets Manning and Astro left their posts without leave, sir," reported the stocky little spaceman.

Captain Strong took an involuntary step forward, his face drained of all color. Connel looked at him, steely-eyed. "Did you hear that, Strong?" he growled.

Strong nodded. "I—I did," he stammered.

"So those two idiots not only stole a rocket scout, but they left their posts."

Strong could only shake his head in utter disbelief. Commander Walters looked at him pityingly.

"I knew they had taken the scout," said Walters, his voice hard and tight. "But I didn't think they were foolish enough to leave their posts."

"Well, they did, sir," declared Rush. "They left about four hours before they were to be relieved. I was making the rounds when I discovered that they were gone. I put two other men on guard right away, but the doors were unguarded for at least an hour. Anyone could have walked in without the slightest trouble."

Connel turned back to Walters. "This is the end! Those two cadets are going up before a general court-martial."

"Commander," protested Strong, "you can't—!"

"Shut up, Steve!" barked Connel. "There's a limit to how long you can defend your unit. Face it, man, those three boys

have gone off their rockers. They're too cocky. This is the last straw." He turned away from the young Solar Guard officer and faced the others. "Let's get on with the interrogation. Firehouse! What have you got to say about this?"

The tough little enlisted guard stepped up and reported clearly and rapidly and without pause. When he was finished, Connel turned to the guards that had replaced Roger and Astro and each one repeated the story told by Firehouse Tim.

Over and over, Connel heard the same story. No one seemed to have been around the ship when the explosion took place. And it seemed that the only time when a saboteur could have gotten into the hangar and planted the bomb was during the hour the doors were unguarded.

Finally, the interrogation was over and Connel declared, "One thing to remember when you are dealing with sabotage is this: if the saboteur fails, he might return. If our enemy does not know the extent of the damage, then he might return and make another attempt. So, not a word about this to anyone. And that includes your mothers."

"Major, there is one thing I'd like to add," said Barret, stepping forward.

"What's that?" asked Connel.

"It's about the cadets," said Barret. "I talked to them just before they blasted off in the scout. They had a lot to say about your taking Corbett with you on the trip to Mars. They seemed disgruntled and dissatisfied."

Steve Strong whirled on the young engineer. "What did they say?" he demanded.

"Simply that they didn't feel that they were getting a fair deal with Tom being taken off guard duty, since he was actually responsible for them having it in the first place.

"They said that!" exclaimed Strong. "But how could that—" He suddenly closed his mouth and turned away, frowning.

"But how could what, Steve?" asked Walters.

"Nothing, sir," said Strong. "You have already reprimanded me too often as it is for speaking up in their behalf."

Walters lifted his eyebrows. "It appears to me that you're getting a little touchy!" he barked. "Watch yourself, Steve. Don't let your feelings for those boys get out of hand."

"Blast it!" exclaimed Professor Hemmingwell. "While you continue talking about those stupid cadets, you're just wasting my time. There's plenty of work to do and precious little time to do it in." He turned to Barret. "Come on, Dave, let's get this mess cleared away."

"Yes, sir," said Dave Barret.

As Hemmingwell and Barret turned their attention to the wrecked control panel, Connel, Walters, and Strong climbed out of the ship and left the hangar. On the slidewalk, headed back to the Academy, Commander Walters looked at Connel inquiringly.

"What now, Lou?" he asked.

"I have an idea, Commander," said Connel. "I'm going to spend the rest of the night listening to this audiotape over again. Then I'm going to do a little digging around."

"All right," said Walters. "And I suppose you'll want to talk to Manning and Astro when they get back."

Connel looked at Captain Strong grimly. "I want to talk to them so badly, I would crawl on my hands and knees to get to them right now."

Strong flushed angrily but said nothing, and as soon as the three officers arrived at the Academy grounds, he excused himself. He walked slowly and thoughtfully along, looking at the dormitories with unseeing eyes and hearing with deaf ears the noise of the cadets getting ready for bed. He could not believe that Roger or Astro had abandoned their posts, or that Tom would run off to disappear on Mars, just for the sake of disappearing. In all his years at the Academy, Strong had never met three boys who so exemplified the true spirit of Space Cadets. Something was wrong somewhere. But what?

Strong paused outside the huge recreation hall, watching the cadets. Tony Richards and the *Capella* unit walked by, and returning their salutes, Strong could only see Tom, Roger, and Astro.

A figure dressed in the black-and-gold uniform of an officer in the Solar Guard walked toward him. Strong's eyes lighted up with recognition.

"Joan!" he exclaimed. "What are you doing here?"

"Looking for you," she said. She had some papers in her hand and held them out to him.

"What's this?" he asked, glancing at them in the light reflected from the hall, and then back to the serious face of the brilliant young physicist, Dr. Joan Dale, who, in spite of being a woman, had been placed in charge of the Academy laboratories, the largest and most complete in the entire Solar Alliance.

"Steve," she began, "I was in charge of the psychograph tests taken of all the workers at the projectile operation after the first mishap—"

"How did you know about the second?" Strong interrupted quickly, remembering Connel's admonition about keeping the incident quiet.

"I was ordered to go over the graphs again, to look for any possible clue in a worker's mental make-up that would lead him to a criminal act." She paused and looked up at him squarely. "Do you suspect me too?"

"I'm sorry, Joan," said the young captain. "But this whole business is getting me down. Tom, disappearing on Mars, Roger and Astro walking off guard duty and stealing a scout, and now this latest sabotage attempt." He sighed and shook his head. "I'm tired I guess."

She smiled. "I understand, Steve, and regardless of what Major Connel and Commander Walters have said, I'll bet my last credit there's a good reason for what the boys have done."

Strong looked down at the pretty physicist and smiled. "Thanks, Joan," he said. "Now, what about these papers?"

"It's about the report on Pat Troy," she replied. "When we asked him if he was working with anyone other than the professor, he lied."

She produced a sheet of paper from among those she held and handed it to Strong. The young captain took it and scanned it quickly. The paper was ordinary graph paper with a series of small, wavy lines on it in red ink. Near the bottom of the paper, there was a jagged peak in the wavy line. "What does this mean?" he asked, pointing to the peak.

"That was his reaction when he was asked if he worked for anyone else."

"Does that mean it's a lie?"

"Yes. All the waves that you see," she continued, pointing to the line, "represent answers to questions about his personal life. Does he shave in the morning? Does he brush his teeth at night, and so forth. They're comparison questions to show his reaction when he tells the truth. That peak indicates a lie."

"Then," said Strong thoughtfully, "he might be the saboteur."

"Or know who it is," said Joan.

"I've got to get this information to Connel right away!" said Strong. "Can I have this paper?"

"Yes. I made copies. I was just going to take one to the commander when I saw you."

"I'll try to locate Major Connel and you go on and tell the commander what you've found. And Joan—" Strong hesitated.

"Yes?"

"Put in a good word for the cadets, will you?" Strong pleaded. "Both Connel and Commander Walters are all set to blast them right out of the service."

"I'll do what I can—" Suddenly Dr. Dale stopped, her eyes widening with fright. She pointed down the walk behind Strong.

Steve turned around and gasped. Connel was striding toward them grimly, followed by four guards carrying a stretcher covered by a blanket. Strong quickly recognized the outline of a human form beneath the blanket.

"Major," exclaimed Steve, "what—who—?"

"It's getting thicker by the hour, Steve!" said Connel in a low voice. "This is the first time in the history of the Academy that there has been what looks like"—he paused and turned to look at the draped body being carried past them—"an attempt at murder," he finished.

"Murder!" said Strong. "But—"

"Who is it?" demanded Joan.

"A little man who can tell us a great deal if and when he regains consciousness! Pat Troy!"



CHAPTER 11

"Vroom-m-m!"

As the shattering blast of noise pounded against his eardrums, Tom Corbett opened his eyes, blinked, and stared around him. By the dim light from a small window in the wall over his head, he saw that he was in some sort of metal enclosure. Suddenly the floor trembled and again the shocking, shattering noises rang through his aching head. He tried to sit up but found that his hands were tied behind his back. The ropes were so tight, his hands were almost completely numb. Slowly he clenched his fingers, then opened them again, repeating the process over and over again while needlelike pains shot through his hands. Finally there was feeling in his fingers again and he struggled to a sitting position.

Again the metal enclosure vibrated and there was another thunderous blast. This time Tom recognized the sound.

"A jet!" exclaimed the cadet aloud. "I'm in the van of a jet truck."

When Tom tried to stand up, he found that his feet were bound. Again he went through the slow, painful process of restoring circulation in his legs and feet, gritting his teeth against the needles of pain. Finally he felt strong enough to push his back against the wall and inch his way upright.

The noise around him continued. Again and again, he could hear the shattering explosions of the exhausts and the screaming whine of the jets. Looking around carefully for the first time, he saw that the van was empty except for a pile of heavy quilted rugs in one corner which he knew were used to protect and cushion cargo.

Hopping to the corner, he flopped down on the blankets and, one by one, he began dragging them out. There was nothing else in the van that would aid him in cutting the thick ropes around his wrists and he hoped to find something under the heap.

Suddenly he felt something hard and boxlike under the last blanket and he tore it off quickly.

He nearly screamed for joy when he recognized a heavy metal toolbox. Sitting on the floor of the van, he maneuvered the top open, then spun around and hopefully looked inside. There was nothing in the box but a dirty cloth, and Tom slumped back in bitter disappointment.

Suddenly the cadet became aware of the intense heat inside the van. He was sweating, and he found it difficult to breath. He inched over to the side of the huge truck and touched the metal paneling. It was blisteringly hot.

"The New Sahara," he thought, a vision of the desolate sun-baked wasteland of the Martian desert flashing through his mind.

He looked around again desperately. The only thing in the van that might cut through the rope was the edge of the toolbox. He inched his way back to the box and began rubbing the rope across the edge of the box, but it was too smooth.

Tom knew that he would have to roughen the edge of the box, so that it would cut the thick fibers of the rope, and in sudden inspiration, he inspected the floor of the van. The heavy-gauge metal was scarred and roughened from the many heavy loads dragged across it. He turned the box over, and with great difficulty, rubbed it back and forth across the floor. Every few minutes he tested the edge of the box with his finger. It was losing its slick surface, but there was a long way to go.

It got hotter inside the van and Tom's uniform was soaked with sweat. He found it difficult to breathe and the continuous roar of the jets tortured his ears.

He did not know how long he had worked, but eventually, he felt that the edge of the box was sufficiently rough to try to cut the ropes. He righted the box, placed the ropes on the edge again and, with a silent prayer, began scraping them across the metal.

After a few minutes there was a tug at the bonds. The cadet pushed harder. There was another tug and the rope seemed to give a little. Working frantically, he sawed back and forth. The sweat poured from his forehead, his arms and back ached unbearably, and soon he felt something warm and wet begin to trickle down the palms of his hands. He knew it was blood, but he kept on grimly, and suddenly he was rewarded. With a snap, the ropes parted. His hands were free!

Tom hastily untied his feet, and giving the toolbox an affectionate pat, rose to his feet to begin the next step in his plan to escape.

The young cadet examined the entire surface of the inside paneling of the van with his finger tips. He could find no opening other than the back door, which he knew was locked by an electronic beam. Without the proper light-key adjustment, the door could not be opened. And the vent high in the wall was much too small to help him.

He sat down, disheartened. He was still no better off than before. And there was no way of telling where he was, whether it was day or night, and how long he had been riding in the jet truck.

He rested on the floor of the van, the bumpy ride cushioned by the soft blankets, and tried to recall the events that had led him into this trap. He remembered the two men, Cag and Monty, and grimly vowed to repay them if he ever met them again.

Suddenly remembering something more immediate, Tom sat bolt upright. He got up and went to the front of the huge van. There he knelt down in one corner and felt the floor with his hands. He found exactly what he had been hoping for. A large grate, and it was cool! He jumped up, grinning, grabbed the heavy toolbox and carried it back to the corner where he let it drop on the grate. It sagged slightly, near the corner. He picked up the box and dropped it again. The grate sagged a little more. Tom got down on his knees and felt along the edge of the floor. The grate was giving way.

He really began to hammer in earnest then. And each time the heavy box thudded on the grate, he thanked his lucky stars that he had lived near a garage when he was a boy back in New Chicago. Time and time again, he had slipped inside the huge vans after the produce had been taken out, to find a piece of fruit. He had gotten into the sealed vans, through the refrigerating compartment, a huge unit beneath the van and connected to the cab. Opening the outside hatch to the unit, he had squeezed inside and then unscrewed the grate from the bottom.

With a final hard smash, the grate gave way, clattering into the recesses of the refrigerating unit. Now Tom was grateful for the roar of the jets. It covered the sound of his escape.

Quickly reaching down into the unit, Tom began tearing the mechanism apart; ripping out coils of copper tubing and rubber connections. Disconnecting a pipe, he used it to pry apart the rest of the unit, and finally, after removing the broken parts, there was room enough for his body.

Stuffing the heavy pipe in his tunic, Tom dropped into the unit and opened the outside hatch. A blast of cool air struck him. The sun was setting and the cadet knew that soon the near-zero temperatures of night would settle over the desert. Tom poked his head out and the air stream hit him like a solid wall. He looked back past the spinning wheels and saw a long stretch of deserted road bordering a canal. His view forward was blocked by the overhanging cab of the truck. The small step up to the cab was a foot away. Tom eased back into the compartment again and sat back against the wall to consider his next move. He would have a better chance of not being seen if he waited for darkness. On the other hand, they might reach their destination before that and he would be caught. Tom made up his mind quickly.

Moving back to the hatch, he eased himself through the opening. There was a ticklish moment when he had to let go of the side of the compartment and swing over on the step. He took a deep breath and lurched forward.



Behind him, the huge thick wheels spun over the road. A slip now would mean instant, crushing death. His fingers reached for and grasped the door handle. Seconds later, he stood balanced on the step, swaying in the wind.

He dared a glance into the window of the cab, wondering why he had not been noticed before. He saw Cag and Monty inside, Cag driving and Monty asleep. The driver was on the opposite side from Tom, and Monty was slumped against the door.



Tom realized that if he opened the door, Monty would fall out and probably be killed, but he had no choice. He reached up for the handle and tested it gently before swinging down on it to make sure it would open. It gave a little. Then bracing himself, he pulled hard.

The door swung open and Monty fell out, hitting the pavement and rolling off into the sand to lie still. Tom paid no attention to him. With a mighty effort, he swung into the cab and confronted a startled, wild-eyed Cag.

"You!" cried Cag.

"Stop this crate, or so help me, I'll break your head!" Tom shouted, brandishing the short length of pipe.

In reply, Cag suddenly swerved the big truck to one side of the road, hoping to throw Tom out of the open door. Tom managed to grab hold just in time. He swung back into the cab and struck out with the pipe.

Cag ducked and swung the heavy truck to the opposite side of the road, trying to throw Tom off balance, but the cadet was not to be denied. He swung the heavy pipe again and again, landing hard, telling blows on the arms and shoulders of the burly truck driver. Finally a solid blow caught Cag on the side of the head and he slumped over unconscious. Tom leaned over him, grabbed the wheel, and maneuvered the big truck back onto a straightaway course. A minute later he brought the truck to a stop.

Tom jumped out and pulled Cag after him, taking a bottle of water from the small compartment behind the driver's seat. He splashed some on the man's face, and while Cag moaned and came to, Tom drank his fill. He hadn't realized that he was so thirsty.

"Cag," said Tom coldly, when he knew the man could understand him, "I'll beat your ears off if you don't tell me who put you up to this!"

Cag was silent. Tom stepped in and slapped the man across the face.

"Come on! Talk!" he snarled.

Dirty, his clothes ripped, his hands bloody, Cadet Tom Corbett did not look like the carefree young cadet that Cag had met a few hours ago. He was frightened and began to whine.

"Talk or I'll slap you silly!" Tom growled.

Cag saw the wild rage in Tom's eyes and began to stutter.

"The trucking outfit! Just find out who owns this trucking outfit and who would gain if the projectiles failed."

Tom was back in the cab in a flash. He started the mighty jets and began to engage the clutch.

Cag leaped up. "You can't leave me here in the desert! I'll die."

Tom looked at the man, threw out the rest of the food and water from the compartment, and gunned the huge truck down the highway.

Eight hours later Tom rolled into Marsport, stopping the big truck at the first Solar Guard substation he could find.

He raced inside without cutting the jets of the truck and reported to a sergeant seated behind the desk, reading.

"I'm Cadet Tom Corbett!" he shouted. "I've got to get in touch with Commander Walters at the Academy right away."

"Stand where you are, Corbett!" said the sergeant, jumping up and leveling a paralo-ray gun at him. "You're under arrest!"

Tom stared, and then, spinning on his heels, dashed out of the station, the guard's ray blasts spitting at his heels. Jumping into the truck, he gunned the jets and roared off into the dark Martian night.



CHAPTER 12

"Aw, shut your big Venusian mouth!"

As Roger's voice roared over the intercom loud-speaker of the speedy rocket scout, down on the power deck Astro's face turned red.

"Manning," he growled into the intercom microphone, "if I didn't need you to get me back to Mother Earth, I'd come up there and take you apart!"

For four days the two cadets had been aboard the rocket scout, circling in an orbit between Mars and Earth, conducting equipment tests for Dave Barret. They had become bored with the routine work and spent most of their time needling each other, but as Roger said, at least they were in space.

"O.K., let's knock off the space gas!" called Roger over the intercom. "It's time to run another test. Want to come up topside and take a hand?"

"Be right there, Roger!" said Astro. He set the power-deck controls on automatic, and then, with a quick look around to make sure everything was shipshape, he climbed the ladder to the control deck.

Roger was standing at the chart table, audiophones on his ears, listening for the automatic astral chronometer time-check broadcast on a suprahigh-frequency audio channel from the giant electronic clock in the Tower of Galileo. All spaceship chronometers were checked against this huge clock regularly, in order to maintain constant uniform time so necessary for the delicate art of astrogation between celestial bodies.

Astro started to speak to the blond-haired cadet, but Roger waved him off, listening for the signal. Suddenly he looked up at their own chronometer above the control board and took off the audiophones, smiling his satisfaction.

"Right on the split second, Astro," he said.

"O.K.," replied the big Venusian. "Then let's run that test and get it over with."

"Right," said Roger, turning back to the control panel. "Do you want to go outside this time?"

"I might as well," replied Astro. "Give me a change of scenery."

The big Venusian turned to a locker, pulled out a bulky space suit, and climbed into it quickly. Adjusting the space helmet, he nodded at Roger and stepped into the air-lock chamber, pulling the hatch closed behind him. While waiting for the oxygen in the small chamber to be pumped back into the ship and the pressure to be equalized with the vacuum of space outside, he checked his helmet intercom to insure a clear line of communication with Roger.

The red hand closed on the zero of the gauge over the door and Astro moved to the outer hatch. He unlocked it, swung the door open, and slowly climbed out into the fantastic beauty of endless space. No sooner was he outside than the synthetic gravity generators lost their pull on his body and he started into space. Tightly grasping two metal handles in the hull, the big cadet performed a quick somersault and planted his feet firmly on the hull. His magnetic-soled space boots held him fast and he called Roger over his helmet intercom.

"I'm outside, Roger," he reported. "On my way down to the exhaust."

"Right," came Roger's voice over the intercom. "Let me know when you're ready."

Without replying, Astro made his way slowly and carefully down the length of the rocket scout toward the main drive rocket assembly. Stopping at the trailing edge of the hull, where it enclosed the four rockets, the big Venusian squatted on his heels, making certain the soles of his space boots stayed in contact with the metal of the hull. He peered over the edge and braced himself in a position where he could observe the individual rocket exhausts.

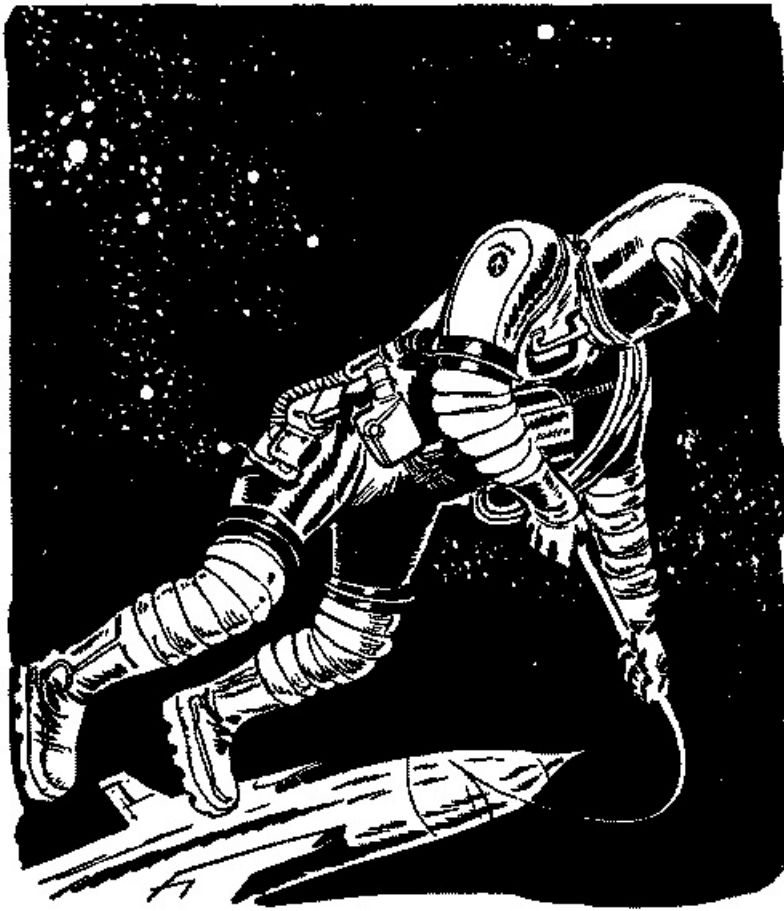
"O.K., Roger!" he called into his intercom. "Open up number one."

"Number one, aye," replied Roger. "And watch yourself, you big baboon. Don't burn your nose!"

"Go ahead, go ahead!" growled Astro in reply.

A long tongue of flame shot out of the exhaust of the number one tube and, after drawing back momentarily, Astro watched the tube keenly.

"You know," he commented idly as he kept his eyes fixed on the tube, "I still can't figure out what's so different about these tubes. They're exactly the same as any others I've ever seen."



"That's how much you know, Astro," snorted Roger. "Dave Barret said they were using a new duralumin alloy in the tubes."

"Still doesn't look any different to me," persisted Astro. "And for us to spend four whole days out here testing them"—he paused and shook his head—"seems like an awful waste of time," he concluded.

"What do you care? We're out in space, aren't we? Or would you rather be back on guard duty?"

"No, of course not," replied Astro. "But even space gets dull after a while with nothing to do. Barret sure gave us an old crate. Not even a long-range receiver aboard."

"What do you want to listen to?" snorted Roger. "Flight orders and all the rest of that rocket wash?"

"Be a relief to listen to somebody else beside you for a change," snapped Astro. "Anyhow, suppose something important happened. Suppose our orders were changed. How would we know about it?"

"What difference does it make?" replied Roger. "We've got our orders—straight from Barret. As long as we follow them, we won't get into trouble."

"For a change," murmured Astro.

"Now cut the griping and finish up out there!"

"O.K.," sighed Astro. "That's enough on number one. Give me number two."

The ship bucked slightly as one rocket tube was cut out and another flared at full power, but Astro clung to the hull tightly, continuing his observations. With troubled eyes he watched all four rocket tubes in operation, unable to understand the difference between these tubes and the standard makes. Finally he shrugged his shoulders, and rising to his feet, called Roger again.

"That's enough, pal," he said. "I'm coming in."

"O.K.," replied Roger from the control deck. "And don't fall all over your big feet."

In five minutes the Venusian cadet was inside the air lock again, and as the pressure was boosted to equalize with the interior of the ship, he removed his space suit and helmet. He opened the inner hatch and stepped into the control deck to see Roger staring at the teleceiver in openmouthed astonishment. A harsh voice was coming over the loud-speaker.

"... Order you to cut all power and stand by for a boarding party, or I'll open fire immediately!"

With an exclamation of startled surprise, Astro rushed to the teleceiver screen and saw a man in the uniform of the Solar Guard, his face grim and purposeful. Just as Astro was about to speak, the officer spoke again.

"Did you hear me? This is Captain Newton aboard the cruiser *Regulus*! I order you to cut all power and stand by or I'll open fire! Acknowledge!"

"Roger," gasped Astro, "what's this all about?"

"I—I don't know," stammered the blond-haired cadet. He grabbed the teleceiver microphone and called into it rapidly.

"Rocket scout 4J9 to *Regulus*. This is Space Cadet Roger Manning. There must be some mistake, sir. Cadet Astro and I are out here on special assignment for the Space Projectile project."

"I know who you are!" shouted Newton. "If you don't stand by, I'll open fire! This is your last warning!"

Astro grabbed the mike from Roger's hand.

"All right!" he bellowed. "We don't know what it's all about, but for the love of Saturn's rings, don't start shooting."

Captain Newton nodded grimly. "Very well," he said. "Bring your ship to a dead stop in space and open your starboard air lock. I will send a jet boat over to you."

"Aye, aye, sir," said Astro.

When the Solar Guard captain signed off and his image faded from the teleceiver screen, Astro and Roger numbly complied with Newton's abrupt orders, bringing the ship to a dead stop in space and opening the starboard air lock. Then the two cadets sat in the main deck of the small scout and waited, their faces showing their concern. Neither felt like talking. They were so confused that they didn't know what to say. Finally Roger got up and in a daze walked to the chart table to note the time of the tests in the log. Then he automatically logged the time of Newton's order.

Suddenly he threw the pencil down and turned to Astro.

"Blast it!" he shouted. "What's this all about?"

Astro merely grunted, shrugged his shoulders, and slumped further down in his chair. The big cadet was worried. Anything that threatened his career at the Space Academy made him literally tremble with fear. In his whole life there was never anything that he wanted more than to be an officer in the Solar Guard. And the only way that could be accomplished was by being a Space Cadet. Now he was under arrest. He didn't stop to reason why. All he knew was that it was a direct threat to his future as a power-deck officer in the Solar Guard.

The two boys felt the metallic thump of something hitting the hull of their rocket scout. They realized immediately that it was the sound of the jet boat coupling on their ship and they turned to face the air-lock hatch.

Captain Newton was the first to step through the air-lock hatch and he was followed by six Space Marines, holding their ray guns leveled.

"I am Captain Newton of the Solar Guard, in command of the rocket cruiser *Regulus*," he announced. "I arrest you in the name of the Solar Alliance." The officer handed over the standard warrant that was used by the Solar Guard.

Roger read it slowly. It was a simple warrant for their arrest, on the grounds of desertion, taking a Solar Guard vessel without permission, and being absent without leave from Space Academy. Stunned, the cadet handed it to Astro who had been reading it over his shoulder, his face white with shock.

"And I warn you, Cadet Manning," continued Newton, "that anything you say from now on may be used against you."

"I understand, sir," said Roger, dazed.

"Then do I have your word," said Newton, "on your honor as Space Cadets, that you will not make any attempt to escape or in any way jeopardize my authority over you?"

"Yes, sir," nodded Roger.

"On my honor, sir," said Astro, gulping, "as a Space Cadet."

"All right," said Newton. "Then I'll let you take the scout back to the Academy yourselves. I'll escort you in the *Regulus*."

He turned to the squad of Space Marines and nodded. They filed into the air lock and Newton followed slowly. He paused in the hatch and looked back at the two cadets, a momentary gleam of sympathy in his eyes.

"You'd better be prepared for a rough time, boys," he said. "Major Connel is going to haul you in front of a court-martial as soon as you land."

"But what've we done?" Astro suddenly exploded.

"The charges are listed in the warrant, Cadet Astro!"

"But that's all wrong!" protested Astro. "We were ordered to—"

"Hold it, Astro," Roger interrupted. "Let's stop and figure this out first. We can tell our side at the court-martial!"

Captain Newton looked at the two boys piercingly for a second, then turned and entered the air lock, slamming the hatch closed behind him. Slowly and thoughtfully, Astro and Roger prepared to get their ship under way. They were still stunned by the sudden turn of events.

They had no idea what had happened. But they knew Dave Barret was at the heart of their troubles. They vowed silently that he wouldn't get away with it!

This time it was not a cadet court that Roger and Astro faced. It was a five-man board of Solar Guard officers, consisting of four captains and one major, who conducted the court-martial in closed session. Only the defendants and the complaining witnesses were allowed to be present. The evidence the board heard was as damaging to the boys as it was bewildering. Major Connel testified to their being absent without leave and taking a Solar Guard space vessel without permission. Firehouse Tim Rush stated that they had deserted their stations. When Roger was called to the stand, he entered the only defense he could, stating that he and Astro had been operating under Dave Barret's orders. The board immediately called Barret in to testify and his words blasted the cadets' case to smithereens.

"... I have no idea what they were doing out in that rocket scout," he stated calmly. "I certainly didn't send them up on any such ridiculous tests. If you will examine the exhaust tubes of that ship, you'll see that they're made of standard materials used in all Solar Guard ships." He turned to the board, casually. "No, gentlemen," he continued, "I don't know what these boys are talking about. You can call Professor Hemmingwell in, if you like. I'm sure he'll vouch for what I've said."

As Barret stepped down from the stand, Astro lunged toward him, blind with anger and shouting his fury. It took six Space Marines to force him back to his chair. Roger merely sat, staring blankly into space, a wry smile curling his lips. He clearly saw the trap into which he and his unit mate had fallen, and there was no way out.

The board didn't deliberate very long after the last testimony was taken. When they returned to the chamber, the presiding officer addressed Roger and Astro directly, asking formally whether they had anything to say before sentence was passed. Roger stepped forward.

"I have something to say, sir," he said in a quiet but firm voice.

"Very well," nodded the major.

"Sir," began Roger, with a glance at Astro, "this is not a plea for mercy but understanding. We are, it is true, nothing but boys in training to become officers of the Solar Guard. One of the most important parts of our training is how to take orders without question. Now at this trial, we have been accused of three specific instances of misconduct. We can offer no other defense than what we have already claimed. Major Connel and Warrant Officer Rush have stated that we should have cleared Barret's orders with them first, since Barret is only a civilian and has no right to give us orders. That may very well be true. But I submit this for your consideration, gentlemen—" Roger paused and looked up and down the line of stony-faced officers. "What would have been your judgment," he resumed, "if Dave Barret had asked us to do these things and we had refused? Would you have been less hard on us? That's all, sir."

Roger stepped back abruptly and the officers stirred uncomfortably. They recognized the merit in Roger's statement, and had not the decision been made, there was more than one who might have reconsidered, remembering their own difficulties as Space Cadets. However, the presiding officer picked up a sheet of paper and addressed the boys coldly.

"While I must compliment Cadet Manning for his admirable statement," he said, "it does not change the decision of this board. Normally, these offenses would be punished by immediate dismissal from the Cadet Corps. However, in view of their past record at the Academy, it is the decision of this board to exercise some lenience. Cadet Roger Manning, Cadet Astro, you are sentenced to serve on the enlisted man's work gangs here at Space Academy for a period of exactly six months. All pay and privileges to be denied during that time. Case is closed!"



CHAPTER 13

"Atom City rocket liner now loading on Ramp Two!"

The metallic voice of the dispatcher echoed through the waiting room of the subspaceport on the outskirts of Marsport and the passengers began moving toward the field gate, where the stewards of the ship checked each ticket against the liner's seating plan. Near them, a squad of four Space Marines scrutinized all passengers carefully as they boarded the waiting jet cars that would take them to the ship far out in the middle of the field.

Tom Corbett sat at the refreshment stand in the waiting room, sipping a glass of milk thoughtfully and eying the squad of Space Marines. He wore a big-billed hat pulled low over his face and a tight-fitting black jacket, the standard uniform of a merchant spaceman.

"Anything else?" asked the pretty waitress behind the counter.

"Yeah," growled Tom. "Gimme another glass of milk and another of these crummy sandwiches."

"Well, you don't have to be rude about it!" snapped the girl. "Somebody should teach you space tramps some manners!"

As she flounced off angrily the young cadet smiled. He knew his disguise must be good indeed to fool this young girl, who met hundreds of people at the spaceport every day and could easily recognize a person for what he truly was. Now his only hope was that the disguise would fool the squad of Marines at the gate.

After having abandoned the jet truck, Tom had moved through the glittering city of Marsport carefully, keeping to the dark alleys and shadows. Gradually he had worked his way back to the area around Sloppy Sam's where, for a few credits, he had been able to buy a merchant spaceman's clothes with no questions asked. He buried his cadet uniform in the loose ground near a construction project.

Then, staying in the area, he wandered in and out of the dingy bars and restaurants looking for the man he had seen at the spaceport, the driver of the truck that had crashed the fence.

He spent three days in his search, not daring to ask questions, simply keeping his eyes open for the man. Finally he had been forced to abandon the search when he saw a stereo newscast reporting that the missing cadet, Tom Corbett, had been traced to Skid Row. He decided that it was time to leave Mars and went to the huge main spaceport, hoping to get aboard a ship bound for Earth. But the Space Marines were stationed at every gate, examining each departing passenger carefully, and Tom knew it would be impossible to get past them. Then he noticed a poster advertising special non-scheduled flights to Atom City, Earth, at reduced rates, that would blast off from a subspaceport on the outskirts of the city. With renewed hope, he had gone there immediately and bought a ticket. Space Marines were on guard here too, but only a small squad. The cadet resolved to make his break here. He had no other choice.

"Here's your milk!" said the waitress, slopping it down on the counter before the cadet. "And your sandwich!"



Tom saw that the Space Marines were watching the passengers very closely

Note

Tom paid for the order and took his time about chewing the stale sandwich. He knew he had to get aboard the ship that was loading now, but the Space Marines were watching the passengers very closely. Suddenly Tom saw a spaceport attendant race up to the squad and hand a message to the sergeant in command of the squad. Leaving the counter, Tom walked quickly to a newsstand near the gate, where he could stand close to the Marines. The sergeant read the message quickly and turned to his squad. Tom strained his ears to listen.

"We have to move out of here or we'll never get out," he said. "There's a Martian sandstorm coming this way. It should hit in about fifteen minutes. This will be the last flight. Then nothing will get off the ground until it blows over. May last for days."

"But what about that cadet?" asked the man nearest to the sergeant. "What if he shows up?"

"Just about all the passengers for this flight are aboard now," growled the sergeant. "Besides, do you see him anywhere?"

Tom turned his back to the troopers quickly and heard the Marine reply, "Naw."

"Then get your gear and pile on the truck outside," ordered the sergeant, "or we'll be living in this station for a couple of days."

The Marines quickly marched away from the gate, through the waiting room, and out the door.

Tom dug into his pocket for the ticket to Atom City and stepped quickly to the gate, presenting his ticket to the steward. "Spaceman Wilson!" Tom growled.

The steward checked his ticket casually and announced, "Seat fourteen, berth twelve!"

Tom walked through the gate, trying to look casual.

"Hey you!" There was a sudden cry of alarm behind Tom and for a moment he was tempted to run. But he turned slowly and looked back. The man at the newsstand was shouting at him.

"Ya tryin' to steal my paper?" he yelled.

Tom looked down and saw that he was still holding the paper he had picked up to hide his face from the Marines. He

smiled, reached into his pocket for a coin, and flipped it back to the man.

"Sorry," he called and walked on.

He hurried through a tunnel to the open area of the field where the other passengers were waiting in jet cars. He slipped into the nearest one and settled down beside a fat woman. She looked at him archly, sniffed audibly, and turned to stare out the window. Tom merely grinned and settled deeper in the seat. In a moment the jet cab was speeding across the small field to the waiting passenger ship.

Safely inside the ship, Tom sank into his assigned seat, buckled his acceleration belt, and listened to the voice of the skipper counting off the seconds until blast off.

"Five, four, three, two, one, *zero*!"

There was very little acceleration shock, since this was a vessel designed for the comfort of the passengers. In fact, Tom found it difficult to determine just exactly when it left the ground. The force of the drive pushed him deep in his seat, to be sure, but it was a gradual pressure and not at all like the sudden violent jerk that came when he gunned the *Polaris*.

He smiled. There was considerably less power in this ship than in the *Polaris*!

The thought of the giant rocket cruiser made him think about Roger and Astro. He wondered what they were doing and if they had stayed out of trouble.

During the trip back to Atom City, Tom kept to himself, avoiding the other passengers on the ship as much as possible, taking his meals in his berth. The cadet had a lot of thinking to do. Though temporarily safe, he knew he couldn't dodge the Solar Guard forever. He kept track of his pursuit by stereo newscasts which the ship picked up from both Mars and Earth, and he was pleased to learn that the Marines and Solar Guardsmen were still searching for him in Marsport.

There was one bit of information that was general news to the others on the ship, but of particular interest to Tom. He had sat up in his berth and listened.

"... The report of a sabotage attempt on a highly secret project now in progress at Space Academy was denied today by project officials and Commander Walters. The commander said there was no basis for the report that the entire control panel of a new type ship had been destroyed."

Tom switched off his set and settled back in his bunk. He saw through the denial by Commander Walters. There was no need to upset the public and, more important, let the saboteur know how successful he had been.

Though Tom knew who was responsible, this knowledge did not mean much while he was still a fugitive. He would have to have proof. He would have to have more than just *his* word and accusation to make his charges stick. But how to get it?

"Attention," boomed the voice of the captain over the ship's loud-speaker. "Fasten your deceleration belts, please! We land at Atom City in thirty minutes. Fasten your deceleration belts, please!"

Certain he wouldn't be seen by the passengers and crew strapped in for the landing, Tom slipped out of his berth and down the companionway to the luggage compartment. Safely inside, he examined the contents of several expensive-looking bags, opening them by springing the locks with his knife. Finally he found a set of civilian clothes that would fit him. Leaving a hundred credits in the suitcase, more than the clothes were worth, he returned to his berth where he quickly washed, shaved, and dressed in the stolen clothes, steadying himself against the lurching of the ship as it made its landing approach.

When the ship finally touched down at the Atom City spaceport, Tom waited in his berth until he was sure most of the passengers had left. Then he walked quickly out of the ship, head down and hat pulled low over his face, to lose himself in the crowded spaceport.

Safe for the time being, at least until the Solar Guard traced him to Earth, Tom moved openly through the streets of Atom City and went directly to the monorail station where he purchased a ticket for Space Academy. He boarded a local train instead of the express and rode the jet-propelled train in the comfort of the dining car where he had a huge meal.

The stop before the Academy was a small village that catered to the wants of the hundreds of civilian workers at the Academy spaceport. Tom had been there many times with Astro and Roger, and knew of a small hotel where he could hide out until he could contact his unit mates.

It was early evening when Tom registered at the hotel under the name of Joseph Cazippi, an engineer from Titan Colony. Safely in his room, Tom turned to the window and stared longingly at the Tower of Galileo in the distance, as it caught the last of the sun's rays and gleamed proudly against the gathering night sky.

He whirled away from the window and froze as someone knocked on the door and a young voice called:

"Lemme in, Tom!"

The young cadet gulped in fear. Someone had recognized him! He wondered if he should open the door or slip out of the window and leave.

"Hey, Tom!" the voice called. "This is Tiny! Come on, lemme in."

"Tiny!" shouted Tom in swift relief. He opened the door and a small boy of about twelve stepped inside.

"Hiya, Tom," greeted the boy enthusiastically.

Tom grinned his welcome. He and Roger and Astro had met the youngster on several of their trips to the village and had become great friends. They always had to tell him stories about the Cadet Corps.

"How did you know I was here, Tiny?" asked Tom.

"I followed you from the monorail station," replied the boy. "You couldn't fool me in those civvies. Where's your uniform?"

"Never mind that now," said Tom, kneeling before him. "Look, Tiny, can you keep a secret?"

"Sure!" said the boy gleefully. "Sure I can, Tom."

"Well, I'm on a secret assignment, see?" whispered the cadet with a conspiratorial air. "And I need someone like you to help me. But you can't tell anyone I'm here!"

"Sure, I understand, Tom. Whatcha want me to do?"

"Go to the Academy and find Astro and Roger. Tell them to come here at nine o'clock tonight. But remember, don't talk to anyone else!"

"O.K.!" replied the youngster. "I getcha! You going to catch spies, Tom?"

"I don't know yet, Tiny. But you do what I told you and then hurry right back to me and tell me what they said!"

The boy nodded and hurried off. From the window, Tom watched him climb on his jet bike and roar off into the gathering darkness toward the Academy.

It was nearly two hours before he heard the jet bike return and he hurried to the door, waiting impatiently for the boy to come in. When the door opened and Tiny stepped in, Tom sensed immediately that something was wrong.

"Tom!" gasped Tiny, his eyes wide with shock. "You know what happened?"

"What?"

"Roger and Astro—" the boy stopped, seemingly unable to go on.

"Didn't you see them?" demanded Tom.

"Naw, I couldn't. They wouldn't let me."

"Who wouldn't let you?"

"The guards."

"What guards? What are you talking about, Tiny?"

"The guards at the jail! Roger and Astro are on the enlisted man's work gang for six months!" said Tiny.

Hiding his shocked surprise, Tom hurriedly gave the boy a ten-credit note and swore him to silence.

"Now you hurry home, Tiny, and don't tell anyone you've seen me!" he said.

"O.K., Tom," replied the boy. "But what does it all mean?"

"I wish I knew," said Tom grimly. "And when I find out, Tiny, I promise you I'll let you know."

When Tom was finally alone, he stood at the window, staring at the gleaming tower, now lighted and shining brilliantly in the darkness. He suddenly felt that he would never see the tower again.

CHAPTER 14

"Stand clear!"

Professor Hemmingwell's voice rang over the roar of activity in the hangar as the huge new control panel was lifted along the hull to a large hole that had been cut into the side of the experimental ship at the control-deck level.

"Easy does it!" called the professor, standing on the deck and peering through the hole. "Careful now!"

Now even with the hole, the panel was slowly pulled into the ship by the workers. Even Major Connel and Steve Strong lent a hand, setting it into place. When it had been securely anchored, a team of technicians swarmed over the panel to begin the intricate work of connecting all the controls to the various parts of the ship, and Hemmingwell and the two Solar Guard officers stepped back to watch them.

"This puts us back on schedule now," said the professor, turning, red-eyed and tired, to Connel and Strong. "It was a good idea of yours, Steve, to prefabricate the panel and have it put into position all at once. If we had tried to install it piece by piece, we'd be weeks behind."

"Good work, Steve," Connel chimed in.

Strong merely nodded his thanks. He was tired. More tired than he had ever been in his life. Not only had he supervised the construction of the new control panel, but he had been working on a special report to present to the Solar Guard Review Board requesting another trial for Astro and Roger. And he had spent every spare minute haunting the MP headquarters of the Solar Guard for word of Tom. So, he accepted the compliments of Connel and Professor Hemmingwell with little enthusiasm.

"You better get some rest, Steve," said Connel, aware of Strong's attitude. "I know how hard you've been working these past few days. So knock off and I want your word that you will go back to your quarters and get some sleep!"

"Sorry, Major," replied Strong, "I can't give you my word about that."

Connel's face darkened with anger. "All right! Then do what you want. Get out!" he shouted.

Strong merely nodded and left the ship.

Outside the hangar, he stopped suddenly when he saw Dave Barret step off the slidewalk from the Academy and stride toward him. The young captain clenched his teeth in sudden anger. He had talked to Astro and Roger many times since they had been put on the work gang and they swore that their story of their ill-fated flight was true. Strong could not believe that they would lie. He had been too close to them and had, many times, put his very life into their hands. But there seemed to be no way to break Barret's story. He waited for the man to pass him.

"Good morning, Strong," said Barret, as though surprised. "Well, how's the genius? Get the control panel in this morning?"

Barret was annoyed that Strong's plan to replace the control panel had been accepted over his own. The captain returned his cold stare and nodded.



"It's in," he said, and then added, "I would like to ask you a few questions, Barret."

"Sorry, haven't got time!" replied Barret curtly as he tried to brush past Strong. But the young captain grabbed him by the arm and spun him around.

"Make time!" he snarled. "I want the straight story about that so-called test flight!"

Barret glared at Strong. "I suggest that you let go of my arm, Captain," he threatened, "or I will be forced to bring charges of assault against you!"

Realizing an open fight would be useless, Strong released his grip on the man's arm and turned away quickly. Barret's mocking laugh echoed in his ears as he stepped on the slidewalk and glided away toward the Academy. Behind him, the big hangar buzzed with the sound of men working in high gear again. The mighty ship and its specially designed equipment seemed at last to be ready for testing. But Strong felt none of the excitement. It mattered little to the Solar Guard captain whether the project was a success or failure. His thoughts were of the three cadets in his unit, who were, first and foremost, his responsibility.

With double guards around the hangar area and even tighter security restrictions than before, the unknown saboteur was unable to attack the precious ship again. But he struck elsewhere. The single track monorail that Barret had run into the area was blocked by an explosion in the mouth of the tunnel. Nearly a thousand tons of rock and earth had fallen on the hangar side, blocking delivery of vital equipment.

With powerful earth-moving machinery, the tunnel was cleared of the heavy rocks and dirt, and all that remained was a general cleaning up, and the enlisted man's work gangs had been assigned to that job.

Nearly a hundred tough, battle-scarred spacemen from the enlisted ranks of the Solar Guard worked in the area, stripped to the waist, their bodies burned brown from the sun. Sent to the work gang for petty offenses, rather than for criminal acts, the enlisted men as a whole did not mind the work. They were under guard, watched by a squad of Space Marines armed with paralo-ray guns, but there was no attempt to make the men feel as if they were criminals. Most of the sentences were short, usually running from five to thirty days, with some extreme cases serving as long as three months. But no one had ever remembered a Space Cadet working on the squad, and particularly for six months! It was an extraordinary situation and the guards, as well as the men on the work details, sympathized with Roger and Astro. They realized that nothing really serious had been done, or the boys would have been sent to the prison asteroid, where all true criminals were sent. So a true spirit of comradeship developed between the cadets and the enlisted men.

When Captain Strong arrived to speak to Roger and Astro, he found them in the tunnel, working as a team of a shoveler and a sweeper. Roger would sweep up a little pile of dirt and Astro would shovel it into a handcart nearby.

"All right, you Venusian pug!" bawled Roger. "Police the joint!"

Astro scooped up the little pile of dirt neatly and deposited it in the truck.

"Manning, what made the spaceship cross to Pluto?" he asked.

"To get to the other side of the universe," said Roger.

"All right," interrupted Strong. "If you two will cut out the comedy, I'd like to talk to you."

"Captain Strong!" yelled Roger. "Hey, fellas! Look!" He turned to the other men on the work gang. "We're special characters! See? We have visitors during working hours!"

Strong laughed with the others, and then motioning for Roger and Astro to follow him, walked to an isolated corner of the tunnel.

"How is it going?" he asked.

"Fine, sir," said Roger. "We have no complaints."

"Yeah," chimed in Astro with a grin. "The food is better here than at the Academy!"

"Give this Venusian bum a good kitchen and he'd go to the Rock!" Roger laughed.

Strong noted their lean, brown bodies and decided that a little work in the sun with a pick and shovel had done them good. But six months of it would interfere with their work at the Academy and could hold them back.

He told them of the work he had been doing to have their case renewed by the Solar Guard Review Board and asked them for any special details in their relationship with Barret that might lend weight to his plea for outright pardon, rather than just a commutation of sentence. He wanted it clear on their records that they had been accused unjustly, and that, therefore, their sentence was an error.

But neither Astro nor Roger could add anything to what the young captain already knew. He finally turned to leave, cautioning them both to stay out of trouble, especially Roger.

"Manning," he warned, "your mouth is your big weakness. I'm detailing Astro to make sure it stays closed!"

"You see?" gloated Astro. "You see who the captain trusts!"

"Listen, you big bum!" began Roger angrily, then stopped and grinned. "O.K., Captain Strong, I'll keep on the ball."

"You'd better," Astro interrupted, "or I'll stand you on your head!"

With a pat on the back, Strong left them. Just as he was about to leave the tunnel, Roger called after him:

"Have you heard anything about Tom, sir?"

"Not a word," replied Strong grimly. "So far as I know, he's still on Mars."

"A—a fugitive?" asked Astro.

"Yes, Astro. The Solar Guard is still looking for him."

Strong watched the two cadets turn back to their work dejectedly, and then, sighing with weariness, he headed back to the slidewalk. In the morning he would check the reports of the Security Section for word of Tom. Then he squared his shoulders determinedly. He would check them now!

He could not go to bed yet. Not while Tom was still missing and while Astro and Roger were on the work gang. He would not sleep until they were free and the *Polaris* unit was together again out in space!

Tom Corbett was also unable to sleep. He had spent the night in the village hotel tossing and turning, his mind seething with plans to aid Roger and Astro.

Finally, at dawn, he got up and sneaked out of the hotel. Avoiding the convenience of the monorail, he struck out on foot over the rugged countryside for Space Academy. He had a plan, but the plan required that he talk to Roger and Astro first, and then to Captain Strong, but it had to be done secretly. He realized that his knowledge of the identity of the saboteur would be a more effective weapon if everyone still believed he was on Mars.

After getting close enough to the Academy to use the slidewalk system crisscrossing the huge area, he loitered on the crowded platforms which connected the hangar, the Academy, and the spaceport. He kept his coat collar high and his civilian hat pulled low over his eyes.

He was on the main slidewalk, moving toward the Tower building, when his eyes picked out the familiar close-cropped blond hair of Roger and the unmistakable bulk of Astro on the walk leading to the hangar. Changing at the slidewalk intersection, he took off after them, hoping he would not be noticed in the crowd of civilian workers. Roger and Astro were carrying tools over their shoulders and were lagging behind the main body of workers moving toward a huge tunnel opening. Tom saw his chance and moved up quickly beside them.

"Keep walking and don't show surprise!" he whispered sharply.

But it was too much to ask. Astro and Roger jumped in surprise and let out involuntary shouts of joy, which attracted the attention of the guards. They noticed the stranger in civilian clothes and stared at him.

"Tom!" exclaimed Roger. "What the devil are you—?"

"Sh!" hissed Tom. "We haven't got much time." He saw one of the guards turn and stare at him. "Listen to me," he continued quickly. "I've got important dope about the saboteur!"

"How?" gasped Astro.

"Never mind," replied Tom. "Now, to nail him, I've got to get him into the act! I need proof!"

"But who is it?" asked Roger.

"I can't tell you now. Here comes the guard. Are you going to be working around here long?"

"At least another three days," said Roger. "But who—?"

Roger noticed the guard move up to them and he suddenly straightened up and snorted derisively, "Yeah. But why a guy should want to join the Solar Guard is more than I can see. You must be wacky, mister!"

He and Astro walked away, and after a hesitant look at Tom, the guard followed the two cadets. Tom boarded the slidewalk heading back toward the Academy. So far, so good. He knew where his unit mates were, but up ahead, in the gleaming Tower of Galileo, was his second target, Captain Strong. His skipper had to listen to him, had to be sympathetic and help him catch the saboteur. It was the only way Tom could clear his own name and free Roger and Astro.

CHAPTER 15

"Scott!"

"Here!" bellowed a grizzled spaceman in reply to Major Connel's call.

"Augutino!"

"Here!"

"Jones!"

"Present!"

"Smith!"

"Here!"

"Albert!"

"Here!"

Connel checked the last name on the clipboard and turned to Professor Hemmingwell standing beside him at the base of the ship. "All present and ready, sir."

"Fine!" said the professor. He turned and looked around. "Where is Dave?"

"Here he comes now," said Connel.

They both watched Barret stride toward them, his arms loaded with gear.

"This is the stuff I told you about, Professor," he said as Hemmingwell looked at it curiously.

"What stuff?" asked Connel.

"Portable heaters for the crew's space suits, just in case—" Barret paused meaningfully.

"In case of what?" growled Connel.

"Why, ask them!" replied Barret, gesturing toward the group of civilian crewmen who had been selected for the test flight of the spaceship.

Connel turned to look at them, then back at Barret. "Ask them what?" he barked.

"How they feel about making this flight," said Barret.

Connel scowled and turned to the men. "Is there anything to what he says?" he demanded.

The men shuffled their feet nervously but did not reply.

"Well?" exploded Connel.

"See, they're afraid of you, Connel," said Barret, deliberately omitting the courtesy of using the major's title.

Ignoring Barret's thrust, Connel continued to face the men. "Is that right, men?" he shouted. "Are you afraid of me?"

There was a mumble from the group and then the man named Scott, a thick-set individual with black flashing eyes, stepped forward.

"Speaking for myself," he said, looking straight at the major, "I'm not afraid of anything that walks. And that includes you, Major Connel. No offense meant, it's just a statement of fact." He paused and drew a deep breath. Then he added, "But I am afraid of this ship."

"Why?" demanded Connel, who could not help admiring the man for his straightforward approach.

"She's junk-jinxed," said the man, using the expression of spacemen who believed a ship with a suspicious accident record should be junked because it was jinxed.

"Junk-jinxed!" cried Connel, amazed.

"Preposterous," snorted Professor Hemmingwell. "Why, you helped build this ship, Scotty! Do you doubt the work you've put into her? Or the work of your friends?"

"That has nothing to do with it," replied Scott stubbornly. "The others feel the same way I do."

Barret stepped forward. Arrogantly and before Connel could stop him, he began addressing the men. "Listen, you men!" he shouted. "You're being childish! Why, you built this ship! How can you possibly allow yourselves to be so stupid as to believe in an idiotic thing like a jinx. Now, why don't you just get aboard and stop being so ridiculously superstitious!"

Connel could have reached out with one of his big hands and squeezed Barret's neck to shut him up. Instead of allaying their fears, which even he would admit were real enough, the man was creating further resentment with his attack on their pride as thinking, reasoning men.

"All right, all right!" he bellowed. "That's enough for now, *Mister* Barret!" He turned to the men and he could tell by the expressions on their faces that he had lost them. They would not take the ship aloft. But he had to try.

"Now listen," he growled. "This is a very important project and someone has been trying to get us to wash out the whole idea. If you don't come through, he'll succeed. You are the best men in your fields, and if each of you attend to your particular job, then the ship will blast off and be a success! Now, how about it?"

He was met with the stony faces of men who were afraid. Nothing he could say or offer them would get them to take the ship off the ground. He tried a new tack. "I'm offering you *double wages*!" he roared.

The men were silent.

"Double wages *and* a bonus!"

Silence.

"All right! Beat it!" he growled. "Don't ever show your faces around here again!"

Connel turned to Professor Hemmingwell. "I'll see if I can't muster a crew from the ranks of the Solar Guard," he said.

"Major," said the professor, his face worn and haggard from the long ordeal of completing the project, "I wouldn't want men *ordered* to man this vessel."

"They're in the Solar Guard and they take orders," said Connel.

"No," persisted Hemmingwell. "I will not let a man on that ship that does not want to go. Remember, Major, it is still my personal property."

"All right," said Connel grimly. "I'll see if I can recruit a crew from the civilian workers around the Academy."

But Major Connel encountered the same superstitious dread everywhere. The word had spread that the projectile ship was jinxed. Old tales of other ships that had gone out into space, never to be heard of again, were recalled, and the men found instances of similar prelaunching happenings on the projectile ship. Very little of it was true, of course. The stories were half-truths and legends that had been handed down through generations of spacemen, but they seemed to have special significance now.

Connel fumed and ranted, threatened and cajoled, begged and pleaded, but it was no use. There was not a man in the Academy who would set foot inside the "jinxed" ship. Finally, in a last desperate attempt, he ignored Hemmingwell's order and appealed to Commander Walters.

"No, Lou. I cannot order men to take that ship up," Commander Walters replied, "and you know it!"

"Why not?" argued Connel. "You're the commander, aren't you?"

"I most certainly am," asserted Walters, "and if I want to get other things done in the Solar Guard, I can't order men to take a jinxed ship off the ground." He looked at Connel narrowly. "Do you remember the old freighter, the *Spaceglow*?" he asked.

Connel frowned but didn't reply.

"You were mate on that ship before you enlisted in the Solar Guard," persisted Walters. "And I read the log of your first trip when you wrote, and I quote, 'There seems to be some mysterious and unanswerable condition aboard this vessel that makes her behave as if she had human intelligence....'"

"That has nothing to do with *this* situation!" roared Connel.

"They're alike! You couldn't get a crew on that wagon in any port of call from Venus to Jupiter!"

"But we found out what was wrong with her eventually!"

"Yes, but the legend still exists that the *Spaceglow* had intelligence of its own!" asserted Walters.

"All right," snorted Connel. "So we have to fight superstition! But, blast it, Commander, we're faced with a saboteur. There's nothing supernatural or mysterious about a man with a bomb!"

Connel turned abruptly and walked out of the commander's office, more furious than Walters had ever seen him.

Back at the hangar, Connel faced the professor. It was a tough thing to tell the elderly man, and Connel, for all his hard exterior, could easily appreciate the professor's feelings. After many years of struggle to convince die-hard bankers of the soundness of his Space Projectile plan, followed by sabotage and costly work stoppages, it was heart-rending to have a "jinx" finally stop him.

"I'm sorry," said Connel, "but that's the way things are, Professor."

"I understand, Major," replied Hemmingwell wearily. He turned away, shoulders slumping, and walked back to his tiny office in the shadow of the mighty ship that was anchored on the ground.

"May I speak to you a moment, Major?" a voice broke the silence in the hangar.

Connel turned around slowly. "You!" he exclaimed. "If it hadn't been for you and your big mouth, this ship might be in space right now!"

"Stop blowing your jets!" snapped Dave Barret. "I want to see this ship in space as badly as you do. Perhaps even more so. But listen, I'm not afraid of the jinx. Neither are you, nor is Professor Hemmingwell. We're spacemen. And we know the operation of every piece of equipment on that ship. What's to prevent us from taking her up?"

Connel looked at the young man, immediately recognizing the value of his suggestion. He nodded his head curtly. "All right," he said. "I'll take you up on that."

Barret grinned, stuck out his hand, and after a friendly shake turned and ran to the professor's office. Connel walked back to the outside of the hangar and began bellowing orders for the giant ship to be brought out to the blast ramp and prepared for the blast-off.



But Dave Barret did not go directly to Professor Hemmingwell's office. He made one stop. Looking around quickly to make sure that he was not observed, he slipped into the teleceiver booth and made a hurried call to an Atom City number. When a gruff voice answered, he merely said three words:

"It's all set!"

Roger and Astro were some distance away from the main gang, working at the tunnel mouth overlooking the hangar area.

"Look, Astro," said Roger. "They're bringing out the ship. They must be ready to blast off!"



Astro stopped his work momentarily and stared as the huge ship was inched out of the hangar, resting on her tail fins, her nose pointing skyward.

"I'd sure like to be bucking the power deck on that baby," sighed Astro.

"Yeah, and I'd give my eyeteeth to see that radar deck," said Roger. "It must be really something with all the gear to control those projectiles when they're released."

"Do you believe any of that talk about her being jinxed?" asked Astro.

"Stop being a Venusian lunkhead!" snorted Roger. "The only thing wrong with that ship is a rocket-blasting clever saboteur."

"You know," said Astro, "I've been thinking."

"Don't strain yourself," snorted Roger. But when Astro failed to reply in kind, the blond-haired cadet realized he was serious. "What is it?" he asked.

"Why, in the name of the moons of Mars, would Barret want to do the things he did to us?"

"Simple," said Roger, beginning to sweep industriously as he saw the guard walking toward them. "He didn't like the way we manhandled him."

"You think he was just getting even with us?" asked Astro, also resuming work.

"What else?" asked Roger. "We made him look pretty silly. And that was no love tap I gave him that night we caught him in the hangar."

"That's what I mean," said Astro. "I know Major Connel said he was supposed to be there. But with that teleceiver conversation I overheard and all the rest—well, I just don't get it," he concluded lamely.

"You'll get it in the neck if you don't watch out," said Roger. "Here comes Spike and he doesn't like to see us loafing!"

The two cadets worked steadily for ten minutes, and when the guard finally walked away, they paused to watch the big ship again.

"I wonder what Tom is up to?" said Roger thoughtfully. "He said he knew who the saboteur was, but he needed help to prove it."

"I'd give a full year's leave just to get my hands on that guy for ten minutes," said Astro.

"Yeah," grunted Roger. "Well, come on, hot-shot, we still got a lot of cleaning to do."

They returned to their work, but even then, as they watched the preparations for the take-off of the big ship, they both thought about Tom. They knew his problems were as difficult as their own, and with much more at stake. If Tom failed in his efforts to catch the saboteur, it could very well mean the end of the *Polaris* unit.



CHAPTER 16

"Bump-ty—bump-ty—bump-ty—"

Tom Corbett's heart beat with such rapid, heavy drumming that the young cadet felt as though it was going to tear itself right out of his chest.

For nearly six hours Tom had lain in wait in Galaxy Hall, the museum of Space Academy, on the second floor of the Tower building. He was hiding in the tail section of the *Space Queen*, the first rocket ship to breach space safely, blasting from Earth to Luna and back again. He had kept watch through a crack in the hull of the old ship, waiting for the lights to go out, a signal that the Academy had bedded down for the night.

Now, in the silence of the museum, surrounded by the ancient objects that traced man's progress to the stars, Tom felt like crying. For as long as he had been at the Academy, he had revered these crude, frail objects and wondered if he would ever match the bravery of the men who used them. Now, unless his plan was successful, he would be finished as a cadet and the dream of being an officer in the Solar Guard would vanish forever.

The Tower building had been quiet for over an hour. Tom had not heard any voices or movement other than the evenly paced steps of the guards patrolling their lonely beats outside.



He slipped out of the antiquated ship, and staying well in the shadows, moved out into the corridor to the head of the slidestairs. He peered over the railing to the main floor below and saw Warrant Officer Mike McKenny through the open door of a small office, seated at his desk, watching an evening stereo program. The young cadet jumped on the stairs quickly and rode the moving belt of plastic to the upper floors where the officers' quarters were located.

Tom was in great danger of discovery. No civilian was allowed on Academy grounds after taps. And he was still wearing the civilian clothes he had taken from the suitcase on the passenger ship from Mars. Silently but swiftly, he made his way from level to level toward the seventy-fifth floor.

He knew that there would be a guard stationed in the halls outside the officers' apartments and it would be impossible to elude him. He would simply have to brazen it out.

At the seventy-fifth floor the young cadet stepped off the slidestairs noisily, his heels clicking on the dark crystal floor, and strode down the hall. He was immediately seen by the guard who advanced to meet him, his ray gun at the ready. Tom was prepared.

"Guard!" he yelled.

The guard stopped in front of him, a puzzled look on his face. "Yes?" he replied.

"Sir!" snapped Tom. "Show me where Captain Strong's quarters are and be quick about it!"

"But who are—?" The guard started to protest, but Tom did not give him the chance to finish.

"Don't stand there like an idiot, man! *Move!*"

"Uhh—yes, sir," stammered the guard, obviously taken aback.

"Lead the way," continued Tom loudly. "I haven't much time."

"Yes, sir, but would you mind lowering your voice, sir? Some of the officers are asleep, sir."

"Well, get on then and stop jabbering!"

The guard turned quickly and started down the hall. Tom followed, hardly able to keep from smiling at the man's frustration and confusion.

They stopped at the door to Captain Strong's quarters and the guard rapped softly.

"Yes?" came a muffled voice from inside.

"Someone to see you, sir," called the guard.

"Just a moment."

The guard stepped to one side and stood at rigid attention. When the door opened and Captain Strong was revealed, Tom brushed past the guard and stepped into the room, talking quickly.

"My name is Hinkleworth, Captain," he announced. "I am here at the request of Commissioner Jessup to discuss the installation of new radar equipment on all Solar Guard rocket cruisers!"

Tom slammed the door closed behind him and turned to face the astonished Solar Guard officer.

"What in the star-blazing—?" Strong began angrily.

"It's me, Captain Strong!" Tom said quickly, pulling his hat off and lowering his collar.

"Corbett!" gasped Strong, taking an involuntary step back, his face mirroring his disbelief.

"Sh!" whispered the boy, motioning to the door. Recovering his composure, Strong swept past him, opened the door, and found the guard still standing there at attention.

"All right, Corporal," said Strong. "Resume your station."

"Yes, sir," replied the guard and walked down the hall. Strong watched him for a moment, then turned back into his room, closing and locking the door behind him. He faced the young cadet, who grinned back at him weakly.

"All right, spaceboy," said Strong, flopping in the nearest chair. "Start at the beginning and give it to me. *All of it!*"

Tom began his story with the incident of the runaway truck at Marsport, told of his abduction and escape from the two truckers, Cag and Monty, his efforts to reach Space Academy, and finally revealed the identity of the man he thought was responsible for the whole effort to stop the projectile operation.

At this, Strong jumped to his feet. "That's the most fantastic thing I've ever heard, Corbett!" he snapped. "What kind of proof do you have?"

"None, sir," replied Tom. "The only reason I came here tonight is to ask you to help me get that proof."

When Strong was silent, shaking his head, Tom tried again.

"Sir, you do believe me, don't you?" asked the boy with a sinking feeling in his heart. "What about all the things that have happened to me and to Roger and Astro?"

"I can explain them away just as easily as you can explain your theory," replied Strong. He walked over and patted the cadet on the shoulder sympathetically. "I'm sorry, Tom," he said gently. "Your story is just too fantastic and you haven't even the slightest shred of evidence. Just a few words an unreliable witness said under duress."

"I realize that, sir," replied the cadet. "But don't you see? This is the only way to clear my name."

Strong turned to the window, looked out thoughtfully for a moment, and then turned back to the boy. "How do you think I can help you?" he said, a more sympathetic note in his voice.

His eyes bright with hope again, Tom spoke quickly and eagerly. The Solar Guard captain calmly packed his pipe and lighted it, stopping the boy now and then to ask a question. Finally, when Tom was finished, Strong nodded and silently puffed at his pipe.

"Well, sir?" asked Tom eagerly.

"I don't know, Tom," replied Strong. "It's a pretty wild idea. And it leaves me way out on a limb."

"Only if we fail, sir," said Tom.

"Which is more than likely," Strong commented dryly.

"Captain Strong," said Tom, "if you really don't think it can work, then I suggest that you call the guard and turn me in. I've put you in enough trouble already." Tom moved to the door.

"Stop playing the hero, Corbett," said Strong. "I didn't say I wouldn't help you. But we have to think this thing out."

Tom sat down, eying Strong hopefully.

"Now, let me get this straight," said Strong. "First you want me to help Astro and Roger escape from the work gang. All right, that may work easily enough. But why?"

"So we can get aboard the projectile ship and go through her tests with her."

"I suppose you've heard that Connel, Professor Hemmingwell, and Dave Barret are going to take her up."

"Yes, sir," Tom replied, grinning. "That's why I want to go along. To make sure no more accidents happen."

"I could send a squad of Space Marines for that kind of job," mused Strong.

"But that would alert Barret," protested Tom. "He might not try anything. If he doesn't suspect he's being watched, we may be able to catch him in the act. And he certainly wouldn't think the three of us are aboard."

"Hum. Maybe you're right," nodded Strong. "Then after I get you three on the ship, I'm supposed to spend my time trailing your prize suspect, right?"

"Yes, sir," nodded the young cadet.

"I'll have to give it consideration, Tom," said Strong after a momentary pause. "As much as I admire your plan and as much as I want to help you, this places me in a highly untenable position. Have you stopped to think what would happen to me if it were ever known that I had sheltered you here in my quarters and aided in the escape of two convicted cadets from the work gang?"

"Yes, sir," replied Tom soberly. "And—all I can say is I'll do whatever you think is best."

"Well, get some sleep now," sighed Strong. "I've got to make a tour of the guard."

Without another word, Tom went into Captain Strong's bedroom and fell asleep thirty seconds after his head hit the pillow. His last waking thought was that if his plan had any merit Captain Strong would help him.

Steve Strong did not leave his quarters immediately. He sat in the easy chair and puffed thoughtfully on his pipe until there was nothing left in the burnt and charred bowl. Then he rose and left the room to make his rounds. He walked slowly through the hollow, empty hallways of the Tower building, riding up and down the slidestairs, speaking curtly to the guards, and finally walked out on the wide steps facing the grassy quadrangle.

Strong glanced up at the sky. He counted the stars he could see and he remembered that as a boy of eight he knew the names and positions of every one. He recalled his entrance to the Academy as a cadet and how his unit instructor had guided him and taught him the many things a spaceman must know. He thought of his long tour as a line officer in the Solar Guard fleet under Commander Walters, then a major, and he remembered his brother officers, many of whom were now dead. There was one thing they all had in common, one thing that overshadowed all personal differences. One thing that was almost like a religion. Comradeship. A feeling of belonging, a knowledge that there was *always* someone who would believe in you and your ideas.

One thing. Friendship.

Captain Strong spun on his heel, walked back into the Tower, and rode the slidestairs back to his quarters. He had made up his mind.

CHAPTER 17

"Stand by to raise ship!"

Connel's bull-throated roar blasted through the intercom of the gleaming projectile ship from the power deck where Dave Barret was stationed, up to the radar bridge where Professor Hemmingwell waited anxiously.

On the main deck, seated at the controls, Connel spoke rapidly into the audioceiver microphone. "Projectile vessel to spaceport traffic control," he called. "Request blast-off clearance!"

"Spaceport traffic control to Connel," came a voice in reply over the audioceiver. "You are cleared. Your time is two minutes to zero!"

Connel began snapping the many levers and switches on the control panel in proper sequence, keeping a wary eye on the astral chronometer over his head as one of its red hands ticked off the seconds to blast-off.

The teleceiver screen to his right showed a view of the stern of the vessel and Connel could see some of the ground crew slowly rolling away the boarding equipment. Flipping on the switch that opened a circuit to an outside loud-speaker, he bellowed an order for the area to be cleared. The crew scurried back behind the blast deflectors and watched the ship through the thick crystal viewports.

"Power deck," Connel called into the intercom, "check in!"

"Power deck, aye!" reported Barret.

"Radar deck, check in!"

"Radar deck, aye!" Professor Hemmingwell acknowledged in a thin voice.

"Feed reactant!" Connel ordered.

"Reactant feeding at D-9 rate," said Barret after a split-second pause.

"Energize cooling pumps!"

"Cooling pumps, aye!"

"Cut in take-off gyros!"

"Gyros on," repeated Barret.

"All clear forward and up!" replied the elderly man.

"Right!" bawled Major Connel. "Stand by!"

Tensely he watched the red hand crawl up the face of the chronometer and he gripped the intercom microphone tightly. "Blast off," he began, "minus five, four, three, two, one, *zero!*"

Connel slammed home the master control switch and in an instant the silver ship trembled under a tremendous surge of power. Flame and smoke poured out of its exhaust and slowly it began to reach for sky, straining as if to break invisible bonds holding it to Earth. Her jets shrieking torturously, the ship picked up speed and then suddenly, as though shot from a cannon, it blasted up through the atmosphere—spacebound.

A moment later, on the control deck of the ship, Major Connel swung forward in his chair, shook off the effects of the tremendous acceleration, and called into the intercom, "Switch on the gravity generators!"

As soon as the artificial gravity was in effect, the officer put the ship on standard cruising speed, changed course slightly to put them on a direct heading to Mars, and then ordered Barret and Hemmingwell to the control deck.

"Well, Professor," he said as he gave the old man a hearty handshake, "so far so good. She handles like a baby carriage. If the projectiles work half as well, you'll really have yourself something!"

Professor Hemmingwell smiled appreciatively and turned to Barret, who was just climbing through the hatch from the power deck. "You've done as much as anyone to help this ship get into space, Dave," he said. "Thank you!"

"Think nothing of it, Professor," replied Barret airily.

"Well, shall we begin the first series of tests?" asked Connel.

"By all means!" said the professor enthusiastically. "If you and Dave will check the firing stations, I'll take care of the paper work!"

"Right," replied Connel. "Let's go, Barret!"

"I'll work outside, Major," said Barret, turning toward the air lock. "You see that all the firing chambers are properly loaded."

"Anything you say, Barret."

The two men turned away from the smiling professor and left the control deck. They separated in the companionway, Connel hurrying to the starboard firing chambers and Barret going to the midships air lock where he put on a space suit for his task out on the hull.

In two minutes the young scientist was out on the odd-looking blisters that marked the exterior of the firing chambers ringing the hull.

At each blister Barret examined the hollow firing tube carefully. In several he made delicate adjustments to a small metallic ring extending from the opening of the tube. The ring was one of the most important parts of the firing unit, emitting the long-range electronic beam controlling the flight of the projectile.

Meanwhile, inside the ship, Connel checked the loading of each of the chambers, making certain that each of the ten-foot-long torpedolike projectiles was properly secured in its blasting cradle. After fifteen minutes and a complete trip around the ship, the major was satisfied that all was in readiness. He returned to the control deck, meeting Barret on the way, and they found Professor Hemmingwell just completing his calculations for the initial test. He turned to them, waving a paper in front of their eyes.

"Gentlemen," he said proudly, "we are almost ready. If you will adjust course fifteen degrees to port, we'll be in proper position for the test!"

"Right," nodded Connel. "Stand by below, Barret."

"On my way," replied Barret, disappearing through the hatch.

"Well, Professor," said Connel, walking to the controls, "this is the big moment!"

"Yes," nodded Hemmingwell. "If these rocket projectiles prove workable now, there's nothing to stop us from carrying on with our test of the ground receivers on Mars immediately."

"Power deck to control deck, check in!" Barret's voice suddenly crackled over the intercom.

"Control deck, aye," replied Connel. "Ready to blast?"

"All set!"

"Give me a ten-second burst on the starboard steering rockets," ordered Connel, gripping the steering vane control tightly.

"Coming up!"

There was a sudden, jolting blast from the stern and Connel and Hemmingwell hung on grimly as the mighty ship turned in space. Watching the control panel instruments carefully, Connel slammed home the switch that opened the powerful nose braking rockets and brought the ship to a dead stop in space.

"On course, Professor, ready to fire!" Connel announced triumphantly, and Hemmingwell took his station before the giant projectile control board.

"Stand by to fire one!" said the professor, making a minute adjustment on the panel. Behind him, Connel unconsciously crossed his fingers.

"Fire one!" shouted Hemmingwell.

Connel pressed a red button on the panel and waited, holding his breath. There was a distinct hissing and then the great ship lurched slightly. On the teleceiver overhead a white flash appeared, streaked across the screen, and then disappeared in the darkness of space.

"Fire two!"

Again there was a hissing sound and another white burst of light faded into the millions of other pinpoints of lights in the black void.

Over and over again, at one-minute intervals, the projectiles were fired, until all twelve of the firing chambers had discharged their fire-tailed missiles.

The professor sat back and smiled weakly at Connel. The gruff major winked encouragingly and they both turned to watch the teleceiver screen anxiously. The gyros on each projectile had been preset for a circular flight of fifteen minutes' duration. Soon they would be returning and the delicate job of bringing them safely aboard would begin.

"Here comes number one," shouted Connel, as a small pinpoint of light appeared on the screen.

"I'm ready!" said the professor. He watched the teleceiver screen carefully, made a minute adjustment of the dial controlling the directional beam emitted by the ring in the number-one firing chamber, and at the last possible moment, snapped the remote-control switch that cut the power in the approaching test projectile. It hung dead in space, immediately over the chamber. Gently the professor increased the power of the electro-magnetic ring and pulled the projectile back into the chamber as easily as slipping a hand in a glove.

"Success!" Connel shouted. "Professor, you've done it!"

"Congratulations, sir," Dave Barret called over the intercom from the power deck.

"Here comes number two," said Professor Hemmingwell excitedly, and began to repeat the process to draw the approaching projectiles back into the ship.

One after another, five projectiles were taken aboard successfully. Then, as he worked on the sixth, the professor began to frown. He rechecked his instruments and then shook his head, obviously disturbed.

"What's the trouble?" growled Connel, noticing Hemmingwell's growing nervousness.

"The homing ring on number six tube isn't working properly," replied Hemmingwell. "I can't control the projectile."

"Any idea what's wrong?" the Solar Guard officer asked.

"The settings on the ring must be wrong." The professor picked up the intercom mike. "Dave," he called, "check in!"

"Yes, sir?" replied Barret immediately.

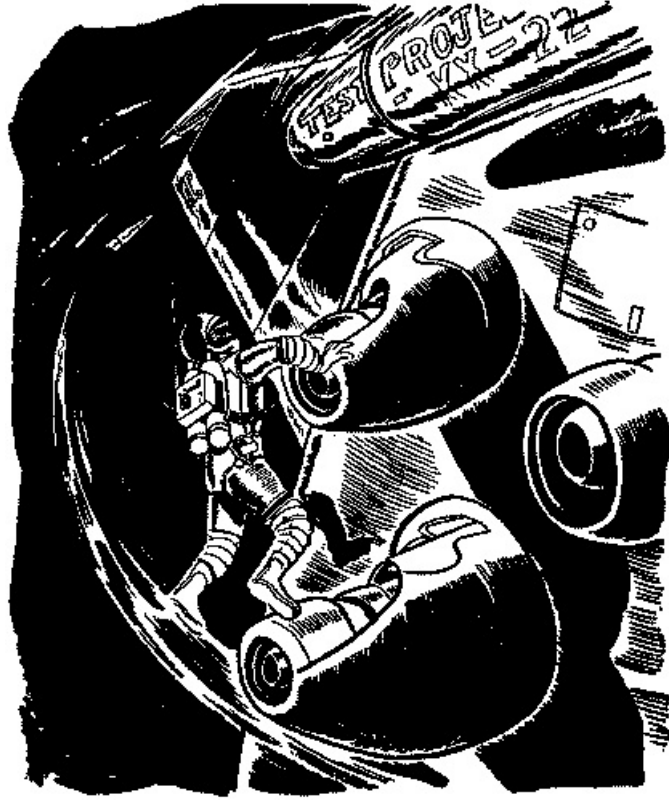
"Did you check the settings on all the rings in the firing chambers?"

"Yes, sir," reported Barret. "They looked O.K. to me. Why don't you check with Connel? He supervised their installation."

"That's true," said the major. "I'll go outside and look them over."

Connel turned on his heel and hurried to the air-lock chamber. Moving with amazing speed for a big man, he donned the space suit in the chamber while the pressure was being equalized. As soon as the air-lock portal opened, he scrambled out on the hull and made his way forward to the bulging firing chambers. Stooping over the empty tube of number six, he examined the ring carefully and began to frown. Moving on to number seven, his frown deepened. By the time he checked the rings of eight and nine, his face was a grim mask of anger.

"Professor," he called into his helmet microphone, "check in."



"Yes, Major," replied Hemmingwell from the control deck. "Have you found the trouble?"

"I sure have," Connel growled. "It's sabotage! And now I think I know who—"

Connel never finished. There was a sudden burst of power from the great ship and the officer was hurled into space.

"Major!" cried Hemmingwell. "Barret! What have you done? Connel is outside!"

"I couldn't help it, Professor," replied Barret from the power deck. "My hand slipped and—"

"Don't talk!" shouted Hemmingwell. "Stop the ship!"

"I can't! The control is jammed!"

As the ship surged through space and the professor and Barret yelled at each other over the intercom, three Space Cadets rose from their hiding place in the hold of the ship.

Tom Corbett nudged Roger and Astro. "You hear that?" he said grimly.

"Yeah!" replied Roger.

"Let's go!" growled Astro.

Without another word, they opened the hatch and made their way quickly through the rocketing ship, each going to their separate stations, according to the prearranged plan. Roger climbed up to the radar bridge, Tom entered the control deck, and Astro burst into the power deck.

"You!" Barret cried out, his eyes wide with sudden fear as the huge Venusian advanced on him menacingly.

"Get away from those controls," growled the big cadet. "If you don't, so help me, I'll break you in two!"

Barret backed away, his face white, hands pawing the air frantically as if he were trying to push the big cadet back.

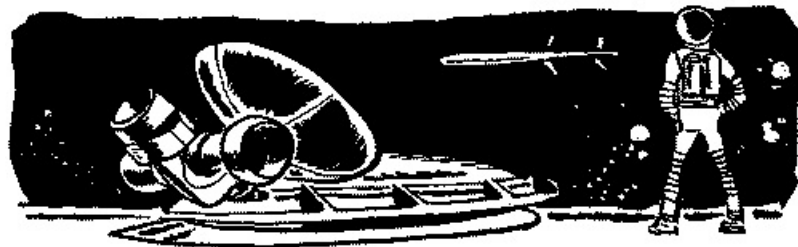
"Get over there," said Astro. "Sit down and keep your mouth shut!"

On the control deck, Tom was strapping himself into the pilot's chair and calling frantically into the intercom, "Give me a course, Roger!"

"One-seventy-degree turn to starboard," replied Roger, "and full ahead! I've got the major on my scanner."

"Pour on the power, Astro!" shouted Tom, gripping the controls firmly.

As the mighty ship blasted in a long, sweeping arc, Professor Hemmingwell sat numbly in his chair, aware only that the three cadets were taking the vessel back into the area where the remaining projectiles, completely out of control, were buzzing around in space like maddened hornets.



CHAPTER 18

"There he is!"

Roger's voice rose to a triumphant shout on the intercom. "Put the brakes on this wagon!"

"Check!" retorted Astro from the power deck, his fingers flying over the switches of the control panel and bringing the ship to a sudden blasting stop.

On the control deck, Tom turned to Professor Hemmingwell. "I'm going outside to get Major Connel, sir," he said. "Do you think you'll be all right?"

The old man nodded absently, still dazed by the sudden turn of events. Tom hurried past him and met Roger coming down from the radar bridge. "I'm going too!" the blond-haired cadet announced.

"You tell Astro?"

"Yeah. He's got Barret locked in the power-deck storeroom and he'll take over the control deck. Wonder if they have a jet boat aboard?"

"I doubt it. Not on a test flight."

"We'll have to hurry," said Roger as they reached the air lock and began to scramble into space suits.

"Yes," replied Tom. "He probably doesn't have much oxygen."

"There's another reason," grunted Roger.

"What?"

"Those projectiles. We're right back in the middle of them. Any one of them could wreck the ship."

"I see what you mean," said Tom. "Guess it's up to Astro to keep dodging them."

"Never thought I'd be out in space ducking hot projectiles to save old Blast-off Connel's hide."

"Neither did I," said Tom. "But here we are."

Stepping into the air lock, they quickly equalized the pressure and a moment later climbed out on the hull.

"See him, Roger?" asked Tom over the helmet intercom.

"Not yet," replied Roger.

"I see him," called Astro from the control deck. "I got him spotted on the teleceiver. Go aft, about a thousand, maybe fifteen hundred yards. I'll direct you from there."

"Right!" snapped Roger. "And listen, you Venusian bonehead! Make it good. I don't like being a clay pigeon for this crazy shooting gallery out here!"

"Aw, damp your tubes and get to work," drawled Astro. "Honestly, Tom, did you ever hear him *not* complain?"

Tom did not answer. He was busy fastening two oxygen tanks to the front of his space suit and Roger's. When he had finished, he checked the pressure and, satisfied, nodded to his unit mate.

Opening the nozzles of the bottles, they shot away from the ship into the nothingness of space.

"You have to go about fifteen degrees to your starboard and five degrees up on the ecliptic," called Astro from the control deck. "You'll hit Connel right on the nose!"

"Right!" replied Tom, turning the nozzle of the oxygen bottle to the left and immediately shooting off in the indicated direction. Roger followed quickly and expertly.

"See him?" called Tom.

"No," replied Roger. "Are you sure, you big clunk?"

"He's right above you!" snorted Astro over the intercom. Then his voice rose in alarm. "No! That isn't—"

"Duck, Tom!" cried Roger.

Tom opened the nozzle of his oxygen bottle wide and turned it. As he shot away, a projectile roared through the area he

had just left.

Roger had done the same thing, flipping over and shooting up and away from the moving object.

"Whew!" exclaimed Tom. "That was close!"

"You blockhead!" roared Roger. "What are you trying to do to us? Set us up for coffins?"

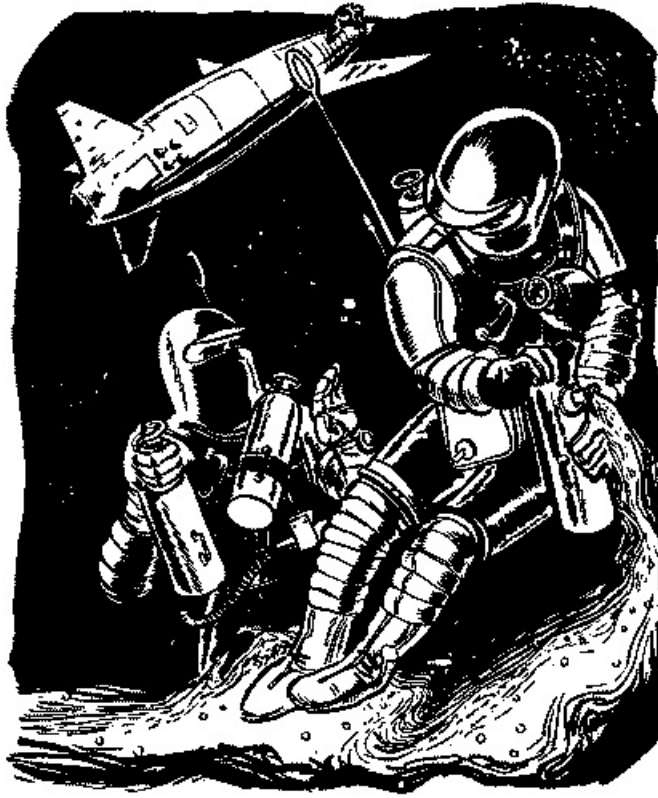
"For you, that's not a bad idea, Manning!" snorted Astro. "Just damp your tubes. I made a mistake."

"Some mistake!" growled Roger.

Tom and Roger maneuvered back together, and locking arms so they would not drift apart, scanned the void around them for Connel. Suddenly Tom jerked free. "Roger!" he cried.

"What is it?" replied the cadet. "Do you see him?"

"There!" Tom pointed back to the ship. "On the stern! He's hanging on to the cleat over the main tubes!"



"He's hanging on to the cleat over the main tube!"

"Astro," Roger called, "we're coming back in. We've spotted him."

"I heard you!" said Astro. "Must've come back on his own steam. Go get him, quick!"

Turning the nozzles of their oxygen tanks, the two cadets shot toward the ship. They quickly clambered onto the stern where Connel lay stretched out on the side of the hull, arms extended, his gloved hands gripping the small cleat on the side of the hull.

In a matter of minutes, the two boys had the Solar Guard officer safely inside the air-lock chamber and had removed his space helmet and suit. His eyes were closed, and his face was deathly white. Tom immediately clapped an oxygen mask over his mouth and nose, while Roger applied heating units to the wrists and neck.

Astro burst into the chamber, followed by the professor. "Will he be all right?" Hemmingwell asked anxiously.

"Think nothing of it, Professor Hummingbird," said Roger. "The old major will come around any second, and when he does, stand back. The first thing he'll do is yell."

"Roger, the name is Hemmingwell," hissed Tom.

"Oh, yeah, sure," nodded Roger, and then turned to Astro. "Is Barret still locked up?"

"Yeah," replied the Venusian. "And I hid the key, so Connel can't get to him until he cools off."

"The major is coming around," said Tom.

As they watched, Connel stirred, coughed several times, and then opened his eyes. He stared in amazement at Tom, then turned to blink unbelievably at Roger and Astro. "What in the star-blazing—?"

"It's us all right, sir!" Tom assured him.

"Yeah," chimed in Roger. "And you're not in heaven or—er—any place else either."

As Connel suddenly flushed with anger and sat up, Hemmingwell spoke quickly. "They saved your life, Major," he said.

"They did?" Connel's face clouded in confusion. "I don't understand. How did you three get aboard, anyway?"

"It's a long story, sir," said Tom. "Right now, maybe we'd better—"

Before the cadet could finish, there was a loud crashing and a series of jolting bumps as the ship lurched.

"What the blue blazes!" roared Connel, jumping to his feet in alarm.

"The projectiles!" exclaimed Roger. "We've got to get out of here!"

"By the craters of Luna!" cried Astro. "I forgot all about them!"

Tom, Roger, Astro, Hemmingwell, and Connel raced out of the air lock to their stations. Astro poured on the power without waiting for an order from the control deck and soon they were rocketing into the safety of space.

Watching the wildly flying missiles on the teleceiver screen, Connel breathed a sigh of relief.

"Wow!" he snorted. "Glad we're out of that mess."

"But what are we going to do about them, sir," asked Tom, a worried frown wrinkling his forehead as he watched the screen. "We can't just leave those things there. Some other ship may—"

"Don't worry about it," Connel broke in brusquely. "The projectiles will run out of fuel in a few minutes and they'll just drift. They can be fished out any time."

"We can go back and get them ourselves," said the young cadet eagerly. "Roger and I can—"

"We've got more important things to do now!" thundered Connel. Switching on the intercom, he ordered Roger and Astro to report to the control deck. They appeared within seconds of his order and he faced the three cadets grimly.

"Well, boys," he asked, "what's the story?"

"I guess we'd better explain, sir," said Tom.

"I guess you'd better," nodded Connel.

Tom quickly ran over the chain of events, beginning with his abduction on Mars to their appearance on the ship, including the part Barret had played in tricking Roger and Astro into taking the scout. As he spoke, Connel looked more and more amazed, and when Tom finally uttered the name of the man he thought was responsible for all the sabotage, Connel jumped out of his chair.

"I can't believe it!" he exclaimed.

"You were nearly killed a few minutes ago, sir," said Tom. "And who sabotaged the rings? Barret! Who was around every time something happened? Who incited the crew to keep from taking this ship into space? Who spread the rumor that it was jinxed? The answer to every one of those questions, sir, is Barret. And Dave Barret is working for—"

"Let me at that sniveling space pup!" interrupted Connel, snarling his rage. "I'll tear him apart and throw him to the buzzards!"

The enraged major jumped to the hatch but Astro and Tom barred his way, with Roger stepping quickly in back of him, a heavy wrench in his hand, ready to assist in any manner necessary to subdue the howling officer.

"Try to kill me!" Connel howled. "Why, I'll—I'll—"

"No, Major!" shouted Tom. "He's the only one that can help us convict Carter Devers!"

Connel stopped. He stared at Astro's bulk and then turned to see Roger trying to hide the wrench. "Were you going to hit me with that thing, Manning?" he growled.

Roger gulped. "Yes, sir," he said. "If it was necessary to keep you away from Barret, sir. I'm sorry, sir."

Connel spun back to face Tom. "Corbett, you must have a plan," he said. "Let's have it quick."

Tom grinned. "All right, sir," he began. Suddenly, out of the corner of his eyes, he saw Professor Hemmingwell slump to

the deck.

Hurriedly they picked up the old man and eased him gently to the nearby acceleration couch. After gulping some water that Roger poured for him, the old man smiled weakly. "I'm afraid I don't have the strength to withstand all this excitement," he said. "But now I understand why things were never easy for me. Carter Devers—he did this to me. He blocked the proposals every time that they were submitted to the Solar delegations. He—" Hemmingwell's head fell back. Roger had put a sedative into the water and the old man was now unconscious.

"It's just fatigue," said Connel. "He'll be all right in a little while." He turned to Tom. "All right, Corbett, carry on!"

Tom hurriedly concluded his story of the events leading up to their startling appearance on the ship, and as he spoke, he saw the major's frown change to a glowing grin. When Tom finished, Connel suddenly extended his hand in a gesture of friendship.

"I have to admit it, Corbett," he said. "You've done a good job. And," he added with a twinkle in his eye, "by going along with you, I am an accomplice with Captain Strong in the aiding of three fugitives from the Solar Guard."

Tom, Astro, and Roger grinned. "Now, let's get Barret up here and ask him a few questions," continued Connel. "And, Manning, if I can't restrain myself, you have my permission to hit me with that wrench! But so help me, if you belt me before the time comes, I'll bend that wrench over your skull!"

While Astro and Roger went below to get Barret, Connel and Tom reviewed their plan.

"Better keep the news quiet for a while," said Connel. "If we telecast it back to the Academy, Devers might get wise."

"Good idea, sir," acknowledged Tom.

"But I can't understand Devers' motive," said Connel. "What does he stand to gain if this project is a failure?"

"He'll lose plenty if it's a success," Tom asserted.

"Devers owns Jilolo Spaceways, the parent company of Universal Jet Trucking and Surface Transportation! If the projectiles worked, surface cargo delivery would be wiped out."

Before Connel could comment on Tom's startling revelation, they heard the sound of angry voices just outside the control-deck hatch.

"That must be Astro and Roger bringing in Barret," said Tom with a grin.

The hatch clanked open and Astro appeared, carrying Roger under one arm and Barret under the other. He dropped them both unceremoniously on the deck, but when they jumped to their feet, Roger charged forward quickly and landed a stinging right to Barret's jaw. The man dropped to the deck again like a stone.

"Manning!" roared Connel. "What was the idea?"

"I wanted to make sure I got in my licks before the Solar Guard got hold of him," replied Roger, rubbing his knuckles and looking down at Barret's inert form.

Astro grinned sheepishly. "I tried to stop him, sir!" he said.

"I'll just bet you tried to stop him!" bellowed Connel. "Cadet Manning, you put that man to sleep, now you wake him up!"

"Yes, sir!" said Roger, and while Connel, Astro, and Tom roared with laughter, he poured an entire bottle of water on Barret's face.

CHAPTER 19

"I don't know what you're talking about!"

Shouting angrily, Barret sat in one of the pilot's chairs, flanked by Roger and Astro, while Connel and Tom stood in front of him firing questions.

"Barret," said Connel, "I have enough evidence on you now to send you to a prison asteroid for ten years at least!"

"On what charge?" demanded the young man.

"Trying to kill an officer of the Solar Guard."

"Where is your proof?" demanded Barret.

"Right there!" snorted Major Connel, pointing to the sleeping figure of Professor Hemmingwell.

"What do you mean?" demanded Barret.

"He'll swear that you deliberately sent this ship into full drive while I was out on the hull checking the rings."

"He can't," protested Barret. "He was on the bridge! He couldn't have seen a thing!"

Tom shook his head gently. "Barret, after what you've done to his ship and the projectile operation," he said, "Hemmingwell will swear to anything."

"It's a frame-up!" shouted Barret.

"And what do you think you did to us?" snarled Roger.

Barret flushed and turned away. "You can't scare me," he muttered. "Go ahead. Let him swear to whatever he wants."

Connel stepped back grimly and turned to Astro and Roger. "All right, boys," he said. "Take him below and see if you can't get some different answers out of him." The hardened spaceman turned his back and walked to the viewport.

"Why, you dirty space rat!" screamed Barret. "You wouldn't dare!"

"Oh, wouldn't he!" retorted Roger. "Listen, pal, he figures we owe you plenty for what you did to us, and he's just giving us a chance to pay you back!" He faced Barret grimly. "Mister, you're going to get the works! Come on, Astro!"

As the giant Venusian advanced on Barret, the man shrank back in his chair, eyes widening in sudden fear. When Astro stretched out his huge hand and grabbed him by the front of his jacket, he screamed in fright.

"All right, all right!" he cried out. "I'll talk! Devers did it! He made me do it! He's responsible for the whole thing!"

"Turn on that audiograph, Corbett!" shouted Connel.

Tom snapped on the machine and brought the microphone over to Barret, holding it in front of his trembling mouth.

"All right, talk!" Connel growled. "And tell it all."

Barret had hardly uttered the first stumbling words when Roger let out a shout of alarm. "Hey! The scanner!" he cried.

They all turned to the teleceiver screen. To their horror, they saw a menacing shape blasting toward them. They recognized it instantly—a space torpedo!

Astro dove through the power-deck hatch while Roger raced for the radar-bridge ladder. Tom hurled himself into the copilot's chair, and with Connel beside him in the command position, he waited for Astro to supply power. Suddenly the ship trembled violently and then shot forward as, far below, the jet exhausts screamed under the full thrust of all the atomic reactors. Tom rode the controls hard and kept his eye on the scanner screen.

"It's a magnetic gyrofish!" he cried as he saw the torpedo curve after them. "Roger, can you plot her for me?"

"Working on it now, Tom!" yelled Roger over the intercom.

"How in blazes did that thing get out here?" muttered Connel.

"We'll have to worry about that later, I'm afraid, sir," replied Tom. "We're going to have our hands full getting away from her. With that magnetic warhead, she'll follow us all over space unless we can throw her off."

"Which will take some doing!" grunted Connel, frowning in deep concern.

"Hey, Tom!" Roger's voice called over the intercom. "It's blasting on maximum thrust now. We have a pretty good chance. Use that idea we worked out. Make a series of left turns and always on the up-plane of the ecliptic!"

"Right!" said Tom, clutching the master manual-control lever and beginning to fly the giant ship through space by "feel."

"What in blazes are you doing, Corbett?" shouted Connel in sudden alarm.

"Just hang on and watch, sir," replied Tom, keeping his eyes on the scanner where he could see the space torpedo trailing them. Over and over, Tom kept slamming the ship into sharp left turns, while the torpedo followed in an ever-narrowing circle.

"All right, Tom!" yelled Roger again. "Give it the same thing on the right and the down-plane of the ecliptic!"

"Check!" answered Tom, reversing his controls and sending the ship corkscrewing through space on an opposite course.

Connel grabbed the arms of his chair and gasped, "You kids are space happy!"

"Those gyros are so perfect, sir," said Tom, working the controls quickly and smoothly, "that the only way you can throw them off balance is to confuse them."

"Confuse them!" exclaimed Connel.

"Yes, sir," said Tom. "It's a theory Roger and I worked out together. No gyro is perfect, and if you can get it bouncing back and forth in extreme turns, it will be thrown out of balance. Then all we have to do is make the torpedo miss once and it won't come back."

"Heaven help us all!" was Connel's groaning reply.

"On the ball, Tom!" cried Roger. "She's closing in on us!"

"I see her," replied Tom calmly. "Hang on, everybody. I'm going to turn this ship inside out!"

Jerking the controls, Tom threw the ship into a mad, whirling spin, subjecting the vessel to the most severe strain tests it would ever undergo. The hull groaned and creaked, and badly fitted equipment tore loose and clattered across the deck. Suddenly the young cadet leveled the ship.

"Nose braking rockets, Astro!" he called.

"Braking rockets, aye!" acknowledged the Venusian over the intercom.

On the power deck, Astro jammed the forward drive closed and slammed open the nose rockets. The ship trembled, bucked, and finally came to a shuddering stop before it started a reverse course, accelerating quickly.

"Here it comes!" yelled Roger.

As Connel and Tom watched tensely, the space torpedo loomed large and menacing on the scanner, and then, as they held their breaths, it whistled past the silvery hull of the ship, with less than two feet to spare!

Sighing deeply, Tom brought the ship back to level flight. "We're O.K. now, sir," he said. "Her gyros are out. She won't come back."

"By the craters of Luna!" Connel suddenly exploded. "The Solar Guard spends a fortune to develop a foolproof space torpedo and two hot-shot cadets come along and get away from the blasted thing! Why haven't you told this to anyone before?"

"Why—er—" stammered Tom, "we've never had the chance to prove it, sir."

Behind them, the power-deck hatch suddenly opened and Astro stepped in. "Nice work, Tom!" he called.

"And as for you, you Venusian ape," roared Connel, "don't you realize that you can blow a reactor tube by throwing so much power into a ship without energizing the cooling pumps first?"

Astro smiled. "Not if you open the by-pass, sir," he said, "and feed directly off the pump reservoir. The gas cools the tube and at the same time expands itself and adds to the power thrust."

At Astro's easy reply Connel could only stand openmouthed in amazement. Again, one of the three cadets of the *Polaris* unit had developed a revolutionary procedure that even top rocket scientists would be proud to call their own.

Winking at Tom, Astro turned away and suddenly noticed Barret sprawled on the deck, unconscious.

"What happened to him?" asked the big Venusian.

"Oh, I forgot all about him," said Tom. "Guess he didn't get into an acceleration chair in time. Better get some more

water."

"We haven't time for him now!" snapped Connel. "Strap him in good and tight. We've got to find out where that torpedo came from."

As though in answer to the major's order, there was a sudden call over the ship's intercom.

"Radar bridge to control deck, check in!" There was a note of alarm in Roger's voice.

Tom jumped to the control panel to reply.

"Control deck, aye!" he snapped into the microphone.

"There's a spaceship to starboard!" called Roger. "Distance twenty miles, fifteen degrees up on the plane of the ecliptic. And I swear she's maneuvering to fire another torpedo!"

"Stand by action stations!" roared Connel, diving into his chair before the control panel. Tom strapped in next to him, while Astro made a headlong dash for the power deck.

"Yes!" shouted Roger. "She's fired a torpedo!"

"Raise her! Raise her!" bellowed Connel. "Tell them who we are!" He turned to Tom. "Go into your act, Corbett," he said, "and make it good!"

As Tom manipulated the controls again, the silver ship plunged through space, turning and gyrating in the same series of maneuvers it had performed to escape the first torpedo. But this time the distance separating them was not as great and the torpedo closed in quickly.

"Can't you raise that ship yet, Manning?" Connel roared into the intercom.

"I just have, sir," replied Roger in a strained voice. "But it's—"

"Let me talk to that lame brain of a skipper," interrupted Connel. "By the stars, I'll teach him to—"

"It's no use, Connel," said a gruff voice over the control-deck loud-speaker. "Even if you duck this torpedo, I've got ten more!"

"Who is this?" roared Connel.

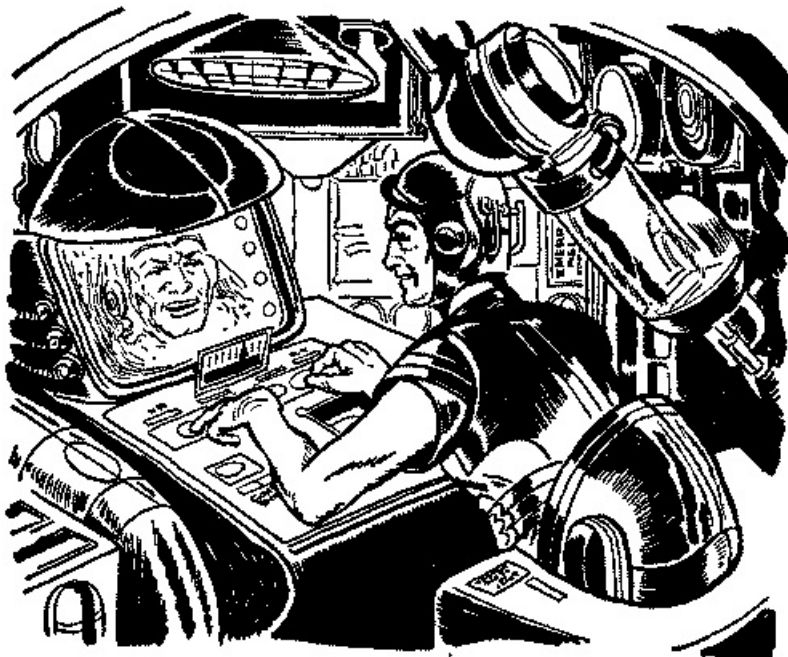
"Don't you know, Connel? Why, I'm surprised!"

The teleceiver screen glowed into life and Tom and Connel stared in horror as they recognized the images of three men. The one in the foreground smiled mockingly and said, "Remember me, Connel?"

"Devers!" Connel roared.

"And the other two behind him—" stuttered Tom. "Cag and Monty!"

"Why, you dirty space crawler," cried Connel, "I'll get you if it's the last thing I do!"



"No, you won't, Major." Devers laughed. "The last thing you'll do is kiss a space torpedo. Then no more Major Blast-off Connel, no more whimpering Professor Hemmingwell, and most important, no more projectile ship!"

And as Devers laughed loudly, Tom threw the ship into another violent turn and cried, "It's no use, Major. I can't duck this one!"

"All hands brace for torpedo!" warned Connel.

Suddenly there was an explosion aft. The ship lurched and shuddered violently, spinning through space, and as Tom fought the controls, everything went black. The ship drifted helplessly, out of control.



CHAPTER 20

"Turn on the lights! Cut in the emergency batteries!"

Connel's bull-throated roar carried through the ship as he stood on the power deck with Astro and shouted to Tom on the control deck. The space torpedo had destroyed the stern of the vessel, and if it hadn't been for Astro's quick action in sealing off the aftersection of the ship, all the air might have been lost and the crew dead of suffocation.

A moment later the emergency lights glowed weakly and Connel and the big Venusian cadet began a quick inspection of the ship. The power deck was a total loss. The ship would never get under way again.

Up on the radar bridge, Roger was about to turn on the radar scanner when Tom appeared and stopped him.

"Wait a while, Roger," he said. "We may need the power for something else."

"What, for instance?" snorted Roger.

"That ship is still out there, probably closing in for the kill."

"A blasted lot we can do about it," Roger growled.

"I've got a plan that might work," said Tom half-heartedly. "It's about the only thing I can think of, unless Connel and Astro have a better idea."

"What is it? Whatever it is, it's better than sitting here like a dead duck, waiting for that rat to come in and finish us off!" said Roger. "Look, I've just got to see what he's doing out there." He flipped on the scanner switch and while he waited for the set to warm up he turned back to Tom. "What's your idea?"

"Well," began Tom, "the only thing we've got on board that we can use to fight back with are those projectiles."

"How can we fight with projectiles?" demanded Roger. "They don't carry warheads!"

"No," agreed Tom. "But they're big and heavy. They pack a wallop if they hit anything."

Roger's eyes brightened suddenly. "Say, I think—"

The scanner began to beep and Roger turned his attention to the screen. Tom leaned over his shoulder and watched eagerly. They both saw Devers' ship flying in a slow circle around them.

"Probably looking to see which would be the best way to let us have it!" snarled Roger.

At that moment Major Connel climbed into the radar bridge, followed by Astro.

"Time to go," announced the officer.

"Go where?" demanded Roger.

"We have to abandon ship," declared Connel. "The power deck is shot. We'll never get under way, and we're just sitting ducks if we stay aboard."

"What's to prevent Devers from picking us off while we're outside?" asked Roger.

"Nothing," said Connel. "But he'll have a harder job and maybe he won't get all of us."

"Then, sir," said Tom with a glance at Roger, "I have an idea."

"Let's have it," said Connel.

"The projectiles, sir," replied Tom.

"What about them?"

"We can still fire them off the emergency batteries, sir."

"Will you get to the point, Corbett?" growled Connel. "Devers is liable to send another torpedo our way any second and—" Connel suddenly stopped and his eyes widened. "A torpedo!" he gasped.

"Exactly, sir!" exclaimed Tom. "We have five projectiles! We can use them as torpedoes!"

"Jumping Jupiter!" exclaimed Astro. "What a terrific idea!"

"What a terrific pipe dream!" snapped Connel. "Those projectiles don't have any warheads!"

"They could still do a lot of damage if they hit that ship," asserted Tom.

"And how do you expect to aim them?" demanded Connel. "There's not enough juice in the batteries to steer them!"

"We'll just fire them straight ahead, sir," broke in Roger. "Look!" he continued, pointing to the scanner screen. "Devers' ship is just circling us now. And he's on the same plane of the ecliptic. If he holds that course—"

"He'll cross our bow!" exclaimed Astro excitedly. "A perfect shot!"

"Ridiculous!" shouted Connel. "Preposterous! It'll never work in a million light years! He'll fire another torpedo and we'll be blasted into space dust!"

"But we can try it, can't we, sir?" asked Tom, grinning.

"Of course we can!" roared Connel. "I've never given up a battle yet and, by the stars, I'm not going to now!"

Forgetting rank and protocol, the three cadets danced around the major, slapping him on the back and howling their enthusiasm. Connel could not restrain a momentary grin and then his features assumed his usual bulldog look.

"Knock it off!" he shouted. "We've got work to do. Manning!"

"Yes, sir?"

"Keep your eyes nailed to that scanner!" Connel bellowed. "Sing out if Devers changes course by so much as a hair!"

"Aye, aye, sir!"

"Astro!"

"Sir?"

"Put space suits on Professor Hemmingwell and Barret and stand by with them on the control deck."

"Aye, aye, sir!"

"Corbett, you and I will check the projectiles. Make sure they're in firing order!"

Spinning on his heel, Connel left the radar bridge. Alone for just an instant, the three cadets of the *Polaris* unit clasped hands in silent determination and then plunged into their various assignments.

Five minutes later, Connel and Tom returned to the control deck to find Astro waiting for them. Professor Hemmingwell and Barret, both in space suits, were seated on acceleration couches. As Connel walked up to him, Hemmingwell raised his head slowly, still under the effects of the sedative.

"What's—what's happening, Major?" he asked haltingly.

"Professor," said Connel, "one of two things is going to happen. Either your ship will be blown to space dust or Carter Devers will be finished and we'll bring your ship back to Earth!"

"Good, good," murmured Hemmingwell.

"And as for you, Barret"—Connel turned toward the man angrily—"now you can see what kind of thanks you get for your dirty work! Your boss is just as willing to get rid of you as he is to destroy this project!"

Barret flushed under Connel's glare and turned away.

At the control panel, Tom opened the circuits to the five loaded firing chambers and then turned to Connel. "All set to fire, sir!" he called.

"Any word from Manning?" asked Connel.

"Not while I've been here," replied Astro.

Connel picked up the intercom microphone. "Hello, Manning!" he shouted. "What's the story?"

"Coming up to the last chapter," replied Roger over the intercom. "Devers is holding course. Should cross our bow in two minutes!"

"Good," replied Connel. "Keep us posted!"

Replacing the microphone, he turned to Tom. "Stupid fool!" he snorted. "He should've fired another torpedo and wiped us out. What's the matter with him?" Connel abhorred stupidity, even in an adversary.

"Maybe he thinks we've already had it," suggested Astro. "With our stern blasted away, he might figure all the air's gone

out of the ship."

"Let's hope he keeps on figuring that way," said Connel. "Everything ready to fire, Corbett?"

"All set, sir," the young cadet replied. "I've hooked up all circuits to this button." He pointed to a button on the control panel. "We'll blast in salvo."

"Oh, we will, will we?" exclaimed Connel.

"If you think it's advisable," Tom amended hurriedly.

"Of course it's advisable!" snorted Connel. "We're almost aiming blind as it is. A salvo will give us a bigger spread. Besides," he added, "with a whole barrel of luck, we might hit him with two of the projectiles. That would really do some damage."

"I'd like just a little potful of luck," murmured Astro, "and be able to land one."

"Heads up, down there!" Roger's voice suddenly sang out on the intercom.

"Devers crossing our bow yet?" asked Tom.

"He's still holding course," said Roger. "But he's training his number one starboard tube this way. He's going to blast us again!"

"How long do we have to wait for that bow shot?" demanded Connel.

"Another forty-five seconds at least!" came Roger's reply.

"Blast it!" muttered Connel. "Plenty of time for him to fire."

Barret suddenly rose from his acceleration couch, screaming, "You can't keep me here! Let me go!"

Astro grabbed him quickly and threw him back down. "Stay put," he growled.

"No," cried Barret, frantic with fear. "It's murder! Let me go!"

"Relax and enjoy it, Barret," snorted Connel. "It's your boss who's doing it!"

"What about Professor Hemmingwell, sir?" asked Tom. "Shouldn't we—?"

"No," Hemmingwell spoke up from his daze. "I want to stay with my ship."

"Hey!" Roger cried over the intercom. "We're getting company!"

"Company?" exclaimed Tom. "What're you talking about?"

"A Solar Guard cruiser," replied Roger. "Coming up to port. About five hundred miles away. Hey! It's the *Polaris*!"

"It must be Captain Strong!" shouted Tom.

"He won't do us much good now," muttered Connel. "How much time do we have, Roger?"

"Get set down there. Only another ten seconds and Devers will be right on our bow."

"On the ball, Tom!" ordered Connel.

"Ready, sir."

The seconds ticked by slowly. One—two—three—four—Beads of sweat appeared on Connel's brow. Astro clenched and unclenched his fists. Hemmingwell closed his eyes calmly and waited. Barret slumped back in his couch, almost paralyzed with fear.

"Coming up, Tom!" cried Roger.

Tom didn't reply. He kept his fingers poised on the firing button. And the seconds ticked off slowly, maddeningly. Seven—eight—nine—!

"They've fired," Roger shouted. "Point-blank! We're going to get it!"

"Fire, Tom!" shouted Connel.

Even as Connel spoke, Tom's finger pressed down hard on the firing button. The ship quivered as five projectiles blasted from the firing chambers and winged their deadly way through space. The control room of the ship was silent, everyone waiting for the impact of the torpedo and praying that somehow, someday, they could know whether their own attack had succeeded even if they lost their own lives in the attempt to destroy Devers' ship.

There was a sudden, blasting roar and a brilliant white flash of light filled the cabin. The deck heaved violently, then dropped sickeningly. Under the force of the explosion, everyone was thrown to the deck and lay deathly still.

In the wardroom of the rocket cruiser *Polaris*, Captain Strong, Major Connel, Professor Hemmingwell, and Roger and Astro were sipping tea and calmly discussing the events of the past hour.

"Your ship wasn't too badly damaged, Professor," said Strong. "We'll take her in tow and bring her back to Space Academy. She'll be good as new."

"I'm afraid you'll have to do without the services of Dave Barret though, sir," commented Connel dryly. "He's got a previous engagement on a prison asteroid and it's going to take him a long time."

"I can do very well without him," said Hemmingwell. "As a matter of fact, I would have done extremely well without him before." He paused and shook his head. "I feel so ashamed of myself when I think of the things I said to those boys." He nodded toward Astro and Roger. "And all the time they were right."

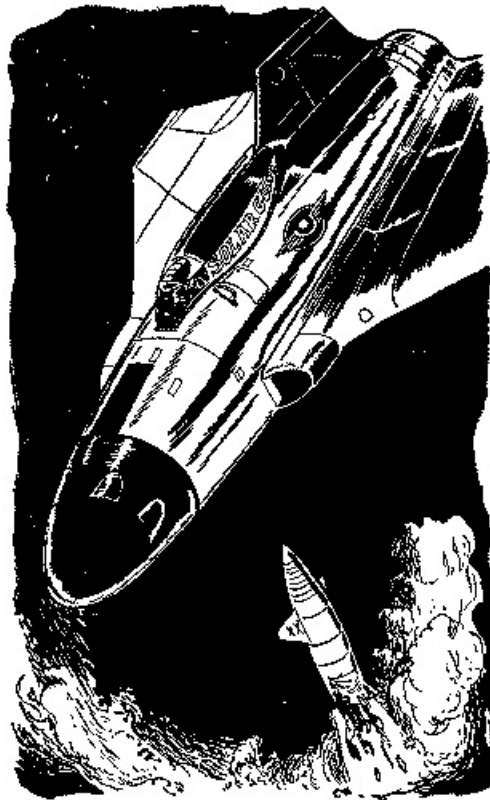
Astro grinned shyly. Roger was about to open his mouth and make a typically flip remark when the hatch opened and Tom appeared, a bandage covering his head. The two cadets jumped toward him and snowed him under with affectionate slaps on the back.

"Wait a minute!" cried Tom. "I'm injured. Look at my head!"

"You couldn't have hit the control panel with anything better!" snorted Connel.

"But what happened?" asked Tom.

"Two of the projectiles hit Devers' ship," said Roger. "One of them on the power deck. Must've smashed the reaction tanks and made the stuff wildcat, because it blew him into rocket dust!"



**"The projectiles blew Devers' ship
into rocket dust!"**

Note

"But his torpedo! He fired at the same time!" said Tom.

"This unit is the luckiest in the universe," said Roger proudly. "One of the other projectiles smacked the torpedo and exploded the warhead. We were bounced around by the shock wave but that's all!"

"Well, I'll be a Martian mouse," sighed Tom. "Then everything is O.K. now?"

"So far as you three are concerned, it's perfect," said Strong. "Barret has spilled everything. You're cleared of all charges!"

"What about Pat Troy?" asked Tom.

"He's in the clear, too," said Strong. "You may remember that he refused to tell us who he was working for besides Professor Hemmingwell and that made us suspicious of him. Well, we found out, when he regained consciousness a short time ago, that he is a security agent for the Solar Alliance Council. He had been assigned to work with the professor and to help protect him. Barret has admitted that he tried to murder Troy."

"Humph!" snorted Connel, suddenly rising.

The room was intensely quiet and Tom, Astro, and Roger felt that there was something coming. Strong could hardly suppress a grin as Connel took a paper from his tunic.

"This message was received just fifteen minutes ago," he said. "It reads, quote, Major Connel, Solar Guard. With reference to Operation Space Projectile, information has come to us that the Space Cadet unit, known as the *Polaris* unit, has contributed in an outstanding and extraordinary way to the successful completion of this highly valuable project. As Senior Line Officer of the Academy, it is hereby requested that you bestow upon this unit some form of expression of the gratitude of this Council for their remarkable and inspired behavior in the face of relentless odds. Signed, Secretary General, Solar Council, Venusport, Venus. Fourteenth of June, 2354, end quote."

Connel slipped the paper inside his tunic and faced the three cadets.

"All right, you heard it!" he growled. "And you deserve it. You have three weeks' leave. But when you come back," he added, "watch out!"

"Oh, for the life of a Space Cadet!" said Tom, grinning at his unit mates. "It's wonderful!"



Transcriber's Notes

A few illustrations have been moved to an appropriate place in the text.

The following typos have been corrected.

Page	Error	Correction
3	particularly	particular
12	stomach. That	stomach that
97	I'll	I'll
112	an attempt at murder,"	"an attempt at murder,"