

On Sale Third Wednesday of Each Month

VOLUME XVI
NUMBER 3

ASTOUNDING STORIES

NOVEMBER
1935

A STREET & SMITH PUBLICATION

The entire contents of this magazine are protected by copyright, and must not be reprinted without the publishers' permission.

Table of Contents

Feature Serial Novel:

- BLUE MAGIC (Part I) Charles Willard Diffin 76
The sort of story you've been asking for—and an author you've been asking for—at his best.

Novel:

- THE RED PERI Stanley G. Weinbaum . 10
You have approved of Weinbaum's stories. He has gone forward in this one to a point reminiscent of— You tell me!

Novelettes:

- SHIPS THAT COME BACK Eando Binder 54
A narrative of the skyraun that will hold you in a grip of realism—between the planets.
- THE ADAPTIVE ULTIMATE John Jessel 108
A biological study that delves into the hidden recesses of psychological impulses—and makes them fascinating.

Short Stories:

- FRUIT OF THE MOON-WEED J. Harvey Haggard 44
Every projection of fact in this story is possible—yet it reads like a fascinating dream.
- WHEN THE CYCLE MET David H. Beaumont 71
A new thought of the ultimate result of pursuing the theory of relationship between time and the galaxies.
- THE LICHEN FROM EROS Frank Belknap Long, Jr. 97
A universe by inverse ratio and a result unlooked for in a scientist's life.

Serial Novel:

- I AM NOT GOD (Conclusion) Nat Schachner 126
In which a man learns a great lesson about destiny.

Readers' Department:

- BRASS TACKS (The Open House of Controversy) 153
- EDITOR'S PAGE 125

Cover Painting by Howard V. Brown

Story illustrations by Elliott Dold, Jr., M. Marchioni.

Single Copy, 20 Cents



Yearly Subscription, \$2.00

Monthly publication issued by Street & Smith Publications, Inc., 79-89 Seventh Avenue, New York, N. Y. George C. Smith, Jr., President; Ormond V. Gould, Vice President and Treasurer; Artemus Holmes, Vice President and Secretary; Clarence C. Vernam, Vice President. Copyright, 1935, by Street & Smith Publications, Inc., New York. Copyright, 1935, by Street & Smith Publications, Inc., Great Britain. Entered as Second-class Matter September 13, 1933, at the Post Office at New York, N. Y., under Act of Congress of March 3, 1879. Subscriptions to Cuba, Dom. Republic, Haiti, Spain, Central and South American Countries except The Guianas and British Honduras, \$2.25 per year. To all other Foreign Countries, including The Guianas and British Honduras, \$3.75 per year.

We do not accept responsibility for the return of unsolicited manuscripts.

To facilitate handling, the author should inclose a self-addressed envelope with the requisite postage attached.

STREET & SMITH PUBLICATIONS, INC., 79 7th AVE., NEW YORK, N. Y.

Ships That Come Back

A Gripping Story of the Skyways

by Eando Binder

OFFICER SORREL groaned and raised his head. Everything swam before his eyes and he fell back weakly. Dimly it came to him that he had been knocked out—and badly. His temples throbbed with incessant hammers, and pin wheels shot before his eyes. Suffering comets! What aching torture!

But Oliver Sorrel was made of firm stuff. Gritting his teeth, he pushed his head and shoulders off the floor, with arms that seemed made of butter. The effort of will brought glistening drops of sweat to his forehead.

Cursing his weakness, he brought his knees up under his body. With another Herculean effort he straightened up and staggered to his feet. Then his clawing hand caught a safety rail on the wall just as his knees buckled. Holding himself erect by the strength of his arm muscles, he leaned against the wall, panting heavily.

There, that was better. Hanging grimly to the safety rail Sorrel felt something of his normal strength flowing back into his veins. His leg muscles stiffened and took the brunt of his weight. Like a delicious warmth, a growing power stole into his body. He was becoming a man again. What he had been there on the floor he did not know, but it hadn't been right. Even the pounding ache in his skull eased somewhat.

When his eyes had cleared sufficiently from mistiness, Sorrel glanced around the cabin. All was not in order. The space chart was lighted up and the gauge needles quivered nor-

mally, but the electric chronometer was dead, half the lights were out, and the air smelled foul. And there was an unnatural stillness—the engines were silent!

"Suffering blue comets! What in the——"

The first officer bit off his words and left his position by the wall. He swayed across the room in a long practiced spaceman's swagger, and found himself still unsteady. Then he kneeled beside Robey, the ship's captain. The latter, a gob of dried blood under his nose, was groaning and twitching convulsively.

"Steady there——"

Sorrel put an arm under Robey's shoulders and raised his head. The captain opened his eyes. Then he closed them again, moaning. There was a bump on his forehead as big as an egg, as though he had catapulted across the cabin against one hard beryllium wall.

"Captain, wake up! Can you hear me?"

There was an answering groan. Robey sent an exploring hand to his head. There followed a stream of muttered curses.

The first officer grinned and yanked him to his feet. Robey stiffened gamely, sagged once, and then straightened up. He shook his head and opened bloodshot eyes, blinking owlishly.

"What's up, Sorrel?"

"Don't know, sir. Can you manage?"

"Yeah. Blast this headache, though. What did happen?"



Something of a growl came from the massed figures. Like a flash, Robey whipped out his pistol, leveled it.

"What's the last thing you remember?"

"Talking to you. Then—well, I went out like a light!"

"Me too."

The two head officers of the freighter *Edison* looked at each other queerly. Then, as one, they swung around and strode to the secondary pilot board. Their eyes riveted to the space chart.

"Do you see what I see, Mr. Sorrel?"

"I see our course dot parading in forbidden territory, sir. Maybe it's misplaced from the true position."

"And again maybe not."

CAPTAIN ROBEY took a confirming glance. Then he whirled and dashed for the companionway. Sorrel was right at his heels as he climbed the narrow ladder to the pilot's cupola near the nose of the ship. Swinging open the door, they dashed to the pilot board. The space chart seemed to loom in their eyes as it showed the same crazy reading the secondary had.

Captain Robey faced his first officer. "What do you think, Mr. Sorrel?" He emphasized the pronoun as though he had his own conviction already.

"Looks bad, sir. Either we're dreaming or the chart's screwy. On the other hand, the blood under your nose is dried and caked. Which means you, and therefore I, have been out for some hours. Liska's out too." He pointed to the pilot's body, crumpled in one corner.

"Wish the chronometers were working," faltered the captain, unwillingly forced to the other's conclusion. "Queer that one of our electrical circuits should blow a fuse—so seldom happens. But you're right, of course; the engines are dead, so the crew is out too."

Avoiding the captain's eyes, the first officer picked the pilot's space-lightened body from the floor. Liska, a big but gentle-faced man, came out of his stupor with a faint groan.

"Liska!" The captain's voice was

tense. "What happened? Can you remember anything?"

The pilot licked a split lip. "Last thing, sir, I see a tenner on the chart. I warped course, captain, swung star-board ten points—should have passed it safely."

"Must have passed it safely," said the captain irritably. "Of course, or we wouldn't be here. But sure it wasn't more than a tenner?"

"Tenners and up are rare, captain," reminded Liska, lowering himself heavily into the swivel chair before the pilot board. He glanced apologetically at his dangling, left arm.

The captain, unnoticed, spoke: "Just where are we?"

Sorrel was already there, looking closely. A numbing sensation crept over his heart as he integrated their position, reading the degrees on the cross hairs of the chart, and transposing to miles from the scale below.

"What does it integrate?" asked the captain, trying to keep his throat from crawling at the sight of the first officer's grave face.

"Fourth quadrant, three degrees off ecliptic, sir. Six point zero two warp from the Saturn-sun line. Miles out from Saturn's orbit——"

"Yes——"

"Almost fifty million——"

"Liska, check!" The captain's voice was incredulous.

The pilot had only to glance at the chart. To his trained perceptions, the readings integrated almost simultaneously. "That's it, sir, as Mr. Sorrel read it. We've been unconscious, I should guess, about seventeen hours."

The captain leaned against the wall, shuddering. "Three degrees off ecliptic; six points plus warp—fifty million miles too far! We should be docking at Zarnoville, Saturn, at about this time. Instead, we're way out here, off course. That tenner must have——"

"Your pardon, sir," broke in Sorrel. "Look at the fuel gauges!"

Startled, the captain and pilot twisted their heads to see. The needle readings stared back—main tank, near empty.

That was as it should be. But: "Emergency tank—empty!" gasped the captain. He paled under his ruddy complexion. Liska turned a pasty-white.

Sorrel was the first to speak after a deathly silence. "Which means we're not only off course, sir, but in danger!"

THERE WAS a noisy interruption. A figure plunged into the room, stumbling. McQuale, head engineer, clutched at a safety rail, caught it, and pulled himself erect. Sandy hair matted with dried blood, he looked at the three men, panting.

"I'd like to know," he spluttered, "who clubbed my men, and me with— with a three-foot jet tube, I would. Devil take me, but we're a nasty bunch down aft—cracked skulls, sprained arms and legs, and a dozen bruises apiece. Like a cyclone blew us around, plague on it! And it looks"—his eyes went to Liska's limp and swollen arm—"as though things weren't so gentle up here!"

"We got it too," said Sorrel. "But the men, Sandy—"

"I got them all up and around," assured the engineer. "That is, all except Gordy. He's sorta—still knocked out."

"Killed?" It was the captain's voice, hoarse.

"No. Can't kill him so easy. Just out—probably concussion. He hit the Number Two fuel breech with his head, I think. I'll bring him around."

No longer panting, McQuale's voice had become laconic. "But now what's to be done, sir? Begging your pardon for asking."

His quick, intelligent eyes had taken in the situation at a glance. He had seen

the course chart; knew enough to realize they were far off course. He knew, too, better than any one, how empty the fuel tanks were. And he even noticed—by the way his mild, gray eyes peered at First Officer Sorrel—that there was a tenseness in the air.

The captain looked from one to the other. "We're in a bad hole, men, no use denying it. We're way out of radio range for help—at least twenty million miles.

"Mr. Sorrel, inspect the ship. See about the emergency tank, the burned-out circuit, and the air conditioner.

"McQuale, get your men shipshape and—better get your engines primed and fueled, ready for top action. I'll take over the pilot board at present. Liska, begin working a countercourse."

The pilot's face was twisting, revealing clenched teeth. "My arm's broken, sir. The pain—"

"To hell with your arm!" exploded the captain. "This is a case of life and death. You're a spaceman; show your grit. You got us into this, letting a tender graze us. It's up to you to bring us out with every trick you've ever learned in space navigation."

Robey's nostrils flared wide; his lips curled in something of scorn as the pilot, big as he was, shrunk visibly into the pilot seat. "And if you weaken and faint—by Heavens. I'll have you slung out the G lock!"

"I won't sir! I'll—" Liska began working feverishly with pencil, navigation tables and desk charts. His left arm, swollen and useless, hung limp; it brought the sweat of agony to his forehead.

The captain swung on the other two. "I don't know how bad this is yet, not till I see the countercourse. But I can tell you it's going to be tight. Every man aboard this ship will have to be on his toes from now on." He paused, eyes hard. "All right, get going."

Sorrel and McQuale jumped to obey.

"And Mr. Sorrel," added the captain, "see about Professor Chesloe."

II.

OFFICER SORREL had plenty to do, inspecting ship. His heavy, iron shoes clumped noisily against the metal flooring in the hollowness of the narrow side passageways.

The fuse boxes of the *Edison's* duoelectrical system were in the bow. He found one set of fuses scorched and blackened. Somehow, that didn't strike him right.

Replacing them, he retraced his steps to the core of the ship and examined the air conditioner, finding its automatic feed valves jammed as though some giant power had slammed it with a brick. It had left only a tiny trickle of oxygen flowing out into the distributing system. They had been breathing the same air ever since the accident that had knocked them all out. Ten minutes with a wrench repaired the flow.

Sorrel went on, puzzled. He found the four huge gyros—which ran from individual battery supplies because of their importance—in smooth operation, whining plaintively. But when he came to the room which held the sizable emergency tank, he stopped short at the sight.

Some inexplicable force, working through hull and bulkhead, had ripped a seam. Because of the giant ship's own gravity field—concentrated appreciably to the forward bow—the almost weightless, but dense, liquid had seeped out and was now rolling in tiny globules over all the walls and floor.

Sorrel shook his head. Diligent effort might scrape together a few quarts of impure fuel, but most of it had by now gravitated into every nook and corner of the subcenter catwalks.

It took Sorrel an hour to peer in every part of the huge freighter, making sure nothing else had suffered damage. They

were lucky at that. The glancing crash, spinning the men off their feet against the hard, metal walls, had done little other harm.

Yet he held his breath, traversing the catwalks just inside the hull, fearing to hear a faint hiss. If the beryllium hull had sprung a tiny leak in whatever cataclysmic strain the ship had been through, then things would be bad. But all was shipshape.

He reported as much to the captain, who was straining his eyes on the dials of the pilot board. "Relief to hear that," said Robey. "Did you find Professor Chesloe?"

"No, couldn't see him around," said Sorrel. "But then I didn't go in either of the bunk rooms. Shall I see about him now, sir?"

Sorrel waited respectfully for an answer, but the captain, apparently forgetting the matter, asked instead: "What's your theory, Mr. Sorrel? That tenner grazed us? Bounced us lightly, but enough to knock us off course?"

"I don't know, sir," said Sorrel non-committally.

"Well, what else could it have been?" bristled the captain.

Sorrel shook his head vaguely. "It's my opinion, sir, that there are things in space—mysterious forces, I might say—that no one knows anything about. We might have run into something——"

"Into something not recorded in space annals, is that it?"

"My idea runs in that line," admitted the first officer. "How can mysterious and destructive forces get in space annals if the ships meeting them—never come back!"

Robey grinned mirthlessly. "Cheerful cuss, you are."

"I'll tell you, sir, what makes me question grazing a tenner. In the first place, any contact with a meteor that big at our speed—and its possibly as great counterspeed—would not simply bump us off course. More likely, sir,

it would bash in at least one hull plate and squash a bulkhead or two.

"The hull, though, is undamaged, smooth as a baby's skin. The strain indicators on the forward bulkheads register a couple of points—insignificant, of course. Then, sir, the one circuit was burned out by an outside agency; there was no interior short-circuit. Also, Liska is a triple-A pilot; he just doesn't let tenners get close."

Robey's face clouded. "Sticking up for him, eh? Think maybe I'm too hard; Sorrel, you talk too much. You're to obey orders, not air your pet theories."

THE FIRST OFFICER reached a hand for the safety rail, gripping it hard, squeezing the firm bar as though trying to crush it. He tore his eyes away from the captain's adamant ones and shot a glance to the desk at which Liska worked furiously with pencil and slide rule. For a moment a great anger shook the young officer, made his lips writhe. Then he relaxed. "Yes, captain. Your orders, sir?"

"I think you'd better go aft and see how McQuale is getting along. We must have those engines all primed and ready for——"

A new voice broke in, high-pitched. "What about me? You don't consider me at all!"

Robey turned his head to the doorway. "Professor Chesloe?"

"Yes, it's me. Surprised to see me. I'll wager. Forgot all about me, I dare say. You would have let me lie there dying, for all you cared. Can you vindicate yourself? No, of course not.

"First you fling your ship around—in spite, I'd say, knowing I'm new at this space traveling—and then you let me lie crushed and bleeding without a thought for me. Oh, my head is splitting! Besides, I thought we should be landed by now. See, my watch says seven o'clock. We were to dock at five."

"I'm sorry about the whole thing, professor," said the captain testily. "But I haven't got the time now to explain. Mr. Sorrel, show Professor Chesloe to the bunk room."

"But, Captain Robey, what has happened?"

"Explanations later," the captain said tersely.

"Are you being insolent?" demanded the little man irately. He barely came to Sorrel's shoulder. His pinched face worked alarmingly. "I'm a passenger, entitled to due respect. You can order your men around as you will, but I've paid for courtesy and respect!"

"You'll get it," returned the captain with a bark. He darted impatient eyes toward Liska's back. The pilot sat industriously working out his intricate space warps, teeth gripped tight to keep from yielding to pain. Watching him, Sorrel felt a great admiration. Space-men were certainly a game lot. But at the same time, he felt a subtle dread. Liska was carrying everything to the last decimal, was rechecking carefully—which did not look like good news.

Suddenly Liska swayed to his feet; Sorrel sprang to his side. The lone passenger of the *Edison*, about to retort scathingly to the captain's indifferent attitude toward him, instead stared, puzzled. The pilot held up the sheet of final computations. "Here they are, sir."

"All right, go ahead." Robey's voice was a mixture of testiness and instinctive dread.

Liska swallowed. "Way I see it, we can only rear-jet into our course."

Robey forced a wry grin. "How about a long arc swing in toward Jupiter?"

"Out of the question, sir. Fuel reserve too small."

"Well, got it all worked out?"

"Yes, sir. To save time, we can rear-jet at extra timing. That'll stop our velocity with respect to Saturn in four-

teen hours. Then we give a final push-back."

"Final push? What do you mean?"

"I mean, sir, that fuel is very low and——"

"But surely we've got enough to get up some speed back to Saturn! Don't stand there and tell me——"

LISKA'S FACE grew suddenly purple and he clutched at his wounded arm. "We'll be damn lucky, sir, if we get that final back push!" With a little moan, he fainted. Sorrel eased him into his chair.

"Mr. Sorrel, get the first-aid kit," said Robey. "We've got to doctor Liska. He's indispensable now that we've got to back-track. You and I can handle straight course, but no swing ship."

Sorrel returned quickly. Without a word Robey opened the first-aid kit. With Sorrel's help, he set the broken bone.

"In bad shape," muttered the captain when it was done. "Best thing for him would be a hospital. I'll give him a shot and bring him to. After he's set course, you and I will take alternate relief at the pilot board. And, Mr. Sorrel, you'd better go down aft now and pep up the men. Don't tell them everything. Let them think we've got plenty of fuel, or there'll be hell to pay. Tell McQuale to stand by for action in the engine room."

"Right, sir." Sorrel left.

Captain Robey turned back to his chart. Carefully he looked over the luminescent quadrant sections in front of their course dot to make sure no fiver or larger meteor was in their path. Warning always came at least five minutes before time, leaving plenty of time to warp course and avoid danger.

The space chart was a miraculous instrument—perhaps the one most important item to space travel next to the fuel. The principle of supersonic radio

waves, reflecting from bodies ahead, spotting the danger on a luminous chart, was beyond Robey's mental attainment. But he admired things he could not understand.

"Forgotten me again!"

Robey started. He had indeed. "Now, Professor Chesloe——"

"Just a minute." There was a new note in the little man's voice—a sort of hollowness. "I've heard certain things, captain, and guessed the rest. It seems we're in a dangerous predicament. Right?"

"Yes, you can't be fooled now. I had planned to keep the facts from you."

The professor boiled up. "Afraid I'd weaken—turn coward?"

"Before this trip is over," said the captain ominously, "we're going to find out if there are any yellow streaks among us!"

The volatile professor sobered. "Anything I can do?"

"Not a thing—yet."

"Yes, there is," returned the other brusquely. "I hereby appoint myself caretaker of Liska. I can hand him his food, water to drink. I can help out in little ways, can't I?"

Robey looked at the little professor queerly, but said nothing.

III.

SORREL crawled agilely down the companionway ladder. He cursed at the pain in his bruised body from the knock that had spun the ship off its course. He heaped revilements, too, on the ache that persisted in his head.

In the engine room he found Sandy McQuale and his seven hearties in a group, vehemently discussing the state of affairs. All of them showed the marks of the catastrophe that had tossed them about in the ship like sacks of meal. One man lay still in the side bunks, pale of face. A sudden silence fell over the room as Sorrel entered.

"Stand by for action, men. We'll swing ship and back-track any minute. Engines all primed?"

McQuale waved an arm to include the quadruple jet systems set in the stern wall, which was the rear of the ship. Mighty feeder valves open, solid spark chambers intact, long slim jet tubes vanishing into the back wall, the powerful machines looked ready to drum into their throbbing song of power—rocket power—the power of a liquid to which nitroglycerin was so much finger snapping. Slung in their sprung holders above were the fuel chambers, which had to be refilled periodically from the main tank to the fore part of the ship.

"All primed and raring to go," assured McQuale. "And the sooner we gets going, the better. How about it, men?"

A murmur of approbation rose from the grimy tenders.

"I told the men you officers don't rightly know just what happened back there when we were jetting peacefully enough from Jove Station to Zarnovillo. Some of them were even a wee bit panicky about it, wondering where we were at. I says, wherever we're at, we're not going to stay long, and we'd be getting along just as soon as the captain and Mr. Liska plotted back-track. Nothing to be alarmed about, is there, Mr. Sorrel?"

There was just the faintest flutter of McQuale's eyes, facing the first officer. Sorrel took the cue. "Why no, of course not." He forced a laugh that sounded genuine enough. "It is a fact that we're a bit in doubt as to how we got sidetracked, but we'll be back toward Saturn any minute now. The whole thing amounts to just a delay."

Sorrel then pulled the head engineer aside after McQuale had sent his men to stand by at the engines for immediate action. "Any trouble, Sandy?"

"No! Except they are a bit nervous.

A plague on them! But I can handle them, don't worry."

"How about him?" Sorrel jerked his head toward the man in the bunk.

"Got a good knock on his dome," drawled the engineer. "Robey better look him over first chance he gets. Say, Mr. Sorrel"—he lowered his voice—"I ain't exactly dumb. It's going to be tight—getting back?"

"Too tight for comfort, Sandy."

McQuale nodded soberly. "I don't want to be impertinent, Mr. Sorrel, but the captain had better begin thinking about the cargo question—understand what I mean?"

The first officer carefully picked a thread off his coat sleeve. "Captain Robey always thinks of those things in advance, Sandy."

The engineer squinted. "He thinks with his head, but not with his heart." He was about to say something further when the attention bell rang loudly. Sorrel left and made his way forward. As he entered the main cabin, Captain Robey, who stood tensed before the secondary pilot board, motioned toward the master controls.

"That tenner pulled us fourteen degrees out of line." His voice was hard with a trace of impotent anger. "Fourteen degrees—gyros, momentum, and all. And this is rated as a pretty big ship in space commerce! Damned if I don't think that tenner was made of solid lead!"

Sorrel hid a steely grin as he stepped before the master controls. It was good now and then to see a cocksure captain up against one of the many inexplicable mysteries of space.

EYES on the dozens of dials and gauges, Robey barked into the intra-phone system of the ship: "Pilot room, ready?"

Liska's voice came back, pain-twisted: "Ready, sir!"

"Engine room, ready?"



"We'll be damn lucky, sir, if we get that final back push!"

"Right, sir!" came Sandy McQuale's phlegmatic tones.

Robey then glanced with arched brows to First Officer Sorrel at the master controls. Sorrel nodded, grim-lipped.

"Stand by for top action!"

There was a moment of absolute silence all over the ship. In itself it was

nothing extraordinary. The swing ship maneuver was used by every ship not equipped with fore rockets for landing.

In this instance it meant far more than merely switching tail and nose fourteen degrees. It was the frantic attempt of a ship off course—and, worst of all, barren of fuel—to get out of alien territory and back into its normal sphere



With a little moan he fainted. Sorrel eased him into his chair.

of the void. Saturn's sparse settlements were mankind's farthest reaches outward from the Sun. The freighter *Edison* was much farther.

Captain Robey parted his lips in his customary commanding voice, half bark, half snarl: "Cut gyro!"

Sorrel crooked his elbow, jerking over a large lever, notch by notch. The in-

animate silence of the ship was disturbed by a high-pitched whine that rapidly sank in tone and finally moaned to nothingness.

"Double-floor gravity!"

Again Sorrel acted at the main controls, shifting a rheostat handle that pushed twice the normal electric power through the powerful floor magnets. It

would take a major shock now to dislodge their steel-shod shoes from the grip of the magnetized floor plates.

"Engine room attention! Attention, Liska! Feed tenth-norm jets at starboard; ten degree oblique per minute!"

Then the silence was shattered by a muted thunder from aft, as Liska, up forward, adjusted his levers. Down below, McQuale darted his hawklike glance over the panel of indicators which showed in detail the exact output of each engine—each individual jet, in fact.

The huge ship, like a sluggish whale immersed in heavy oil, ponderously swung its nose sideways to the terrific forward velocity. It seemed to resent being forced out of its natural groove, but the snarling, flaming port-side rocket jets left no choice. The huge space craft, although weightless, had a gigantic momentum—a product of its great mass. This momentum the throbbing engines had to combat in swinging nose and tail even a little.

Captain Robey saw a dial needle quiver at the number eleven, then crawl crazily past twelve and thirteen. "Attention, Liska! Cut to eighth norm, at starboard, reduce oblique to six!"

The humming thunder from the rear rose rather than died lower; a new bank of balancing jets at starboard had joined in the battle, imparting a slight upswing—up being toward Saturn.

For perhaps ten seconds the process went evenly, and one and all they could feel a slight port-side list as the mighty beryllium craft picked up a twisting momentum. Its nose subtended the black arc of space, cutting the constellations sharply.

IV.

CAPTAIN ROBEY watched his indicators closely, hands firmly gripping the wall safety rail. A wrong blast now, the slightest of misapplied forces out in frictionless space, would throw

the ship's radial axis out of line. That would necessitate the use of more fuel to right the ship. And fuel was precious, more precious to them at the time than even their entire cargo.

"Attention, Liska! Increase to nine point five norm at starboard, reduce oblique to four. Stand by for tangent in ten seconds!"

The pounding engines abruptly eased their mad rhythm. But there was no jar. In space with no gravity, motion accelerates or decelerates smoothly. The mechanics of inertia and momentum and weight-free mass are a system of motion as uniform as a flowing river.

"Ready for tangent; watch it—plus four-three, fourth quadrant!"

With a sullen roar the aft blasts crescendoed angrily; the *Edison's* nose tilted upward to the ecliptic plane of the solar system, slowly and evenly—the motion dying at the precise moment that the longer axis of the bullet-shaped ship had paralleled the plane.

"Stand by, all hands, for final orders!"

Captain Robey's eyes fairly flew over his instrument panel, fixing each number for but an instant. "Attention! Full blast at port side, double norm. Cut starboard two seconds later!"

Only a triple-A pilot could have done that last delicate trick, stopping the great ship's up-and-around swing at precisely the point necessary. The final powerful jet stream that arrested the turn produced a thrilling surge of deceleration.

"Sorrel, gyro!"

The first officer slid his lever over carefully. The ship seemed to shiver an instant, then locked into space. Four mighty gyroscopes now held the *Edison* in its new groove.

Robey squeezed his sweating fingers, sighing in relief. He spoke then, hoarsely: "Pretty good, says I. As smooth as the straight about ship between planets."

"Liska showed his triple-A rating," commented Sorrel.

Robey frowned. Then he turned to the phone: "Attention, Liska! Back-track as per course sheet. Give her extra timing."

Strangely, there was no response from the engines.

"Liska!"

A voice came from the phone, quavering: "Liska's fainted, captain! Better come up and see about him. He was too weak even to pull the last lever; I had to do that!"

Captain Robey banged his palms together. "Liska out again! I thought he was a man!" He looked at Sorrel, black brows contracted. The first officer avoided his eyes, but he said quietly: "Liska got the worst of any of us in the shake-up."

Robey pushed his face forward, aggressively. "Still sticking for the under dog! I know human nature, Sorrel. A captain gets to know its wide varieties, and the symptoms of a yellow streak. Do you know why Liska is falling apart—inside? Because he realizes, better than you and I even, by what a slim margin we may pull back to Saturn—if we do!"

"We may have to toss out cargo," returned Sorrel bluntly.

The captain's face grew livid. "You dare——" He choked. "Listen, Sorrel, captains who throw out cargo are branded for life. They sink to gutters. They end up in spacemen's dives, objects of scorn. The space code is hard, pitiless—but glorious! I will live up to the last dot of the code, not because I fear disgrace, but because I believe in it."

Sorrel gave his superior eye for eye. "Those captains who have tossed out cargo to bring in a disabled or under-fueled ship, did not do so willingly. Crews have a code of their own!"

"And the first rule is: 'Save my own precious skin.'" spat out Robey with in-

finite disgust in his tone. "Bah! A dead man is worth two living cowards."

Then the captain's face grew flinty: "And remember this, Sorrel. The *Edison* docks at Zarnovillo with full cargo or it doesn't dock at all! Now dash up to the pilot room and give her extra timing. And see about Liska. I'll take a three-hour trick at the space chart down here."

Sorrel left expressionlessly. But within himself he wondered what the outcome of the strange drama would be. A crew of men to whom the breath of life was important; a captain whose stern code held life cheaply. There would come a crisis.

IN THE PILOT CUPOLA Sorrel found Professor Chesloe nervously rubbing Liska's forehead with a moistened handkerchief. He looked up mournfully: "This man isn't only bruised, Mr. Sorrel. He's running a fever. Might have internal injuries."

Sorrel stepped to the pilot board, called McQuale for warning, and brought the engines to roaring life at double the usual rate. Then he turned to the unconscious pilot. "You think, professor, he's in a bad way?"

"Look at his face," spluttered the little man. "No man in half-decent condition would look that bad. I would say he should be put to bed and attended to. He's obviously unable to carry on. Why, his face was a mask of agony while he carried out Captain Robey's orders."

Sorrel turned to the desk phone, to notice, with a little shock, that it was open, connected to the captain's cabin below. "Captain Robey——"

"Yes, I heard Chesloe's report," came Robey's voice metallically. But behind the tinny tones there was a cold rage. "In a bad way, eh? Well, I'm no regular doctor. I've done what I could for him, fixed his broken arm. And since there is no one else here can do any more——"

Professor Chesloe sprang to the phone, thrusting out his lips as though about to bite into the mouthpiece. "You don't have to be so brutal about it, Captain Robey! I heard before I took passage on the *Edison* that you were one of the hardest captains in the service. Believe me, sir, you are all of that and more. In the name of humanity, I demand that Liska be relieved of all duty and be taken care of, somehow."

A dry, harsh chuckle came from the phone. "Hard, am I? Maybe you don't know how hard I can be! Well, if you're so concerned about the man, professor, I leave him in your hands, if you care to——"

"I do and shall!" barked the little man. Sorrel snapped the instrument off before the fiery professor could say more. Chesloe glared at him.

"Is your captain a man or fiend?" he asked heatedly.

The first officer shrugged. "You're not used to the frank reality of life in space. Out here we cannot play act. The stern job of coaxing ships across the void leaves no place for sham or pretense."

Chesloe quieted down, shaking his head. "But he hates Liska. Why is that?"

"Always did, I think," replied Sorrel. "Then this incident which threw us off course—— Robey believes Liska to be responsible."

"And what do you believe?" asked Chesloe curiously.

Sorrel shrugged. "Liska is a master pilot."

The volatile professor had become suddenly thoughtful. "I say, Sorrel, how do you account for the fact that every soul aboard this ship was unconscious for exactly seventeen hours? That's a long time to be unconscious and for every man to be——"

Sorrel looked up startled. "Suffering comets! And that fits in with my idea!"

"Which is?"

The first officer looked at the little professor a moment speculatively. "That a mysterious force, probably emanating from that meteor we passed, played some queer pranks with us. It blew out a circuit, ripped the emergency tank to hell, threw us off course to an incredible extent, jammed the air conditioner, and put us all out for exactly seventeen hours!"

Chesloe looked puzzled. "I never heard of such a force. I don't claim to know much about space travel, but I do know a good deal of space theory, and I never heard of it."

"No one's heard of it," said Sorrel. "But then, man doesn't know everything yet about space. I may be all wrong, but this is sure—it was no ordinary thing put us in this predicament."

They turned suddenly at a groan from the pilot, limp in his seat. His head bobbed back, and he twitched his bandaged arm. "Down to the bunk room with him," said Sorrel, picking him up bodily.

V.

FOUR HOURS LATER, the *Edison* still streaking backward with decreasing velocity, the even roar of the engines became spasmodic. Sorrel, at the space chart in the pilot's cupola, cut the power with a hasty snap. He switched on the phone. Before he had a chance to speak, Captain Robey's angry voice bellowed out: "What's up now? McQuale! What happened down there?"

The chief engineer's voice came through the wires, sadly: "What I feared, sir, plague take it! B-engine blew a breech head!"

"But why, man—have you been careless?"

"Not me, sir. Must have something to do with the crack-up we had."

"Well, fix it up. Mr. Sorrel, put in engines A and C."

"Begging your pardon, sir," came McQuale's voice quickly. "There ain't no fixing to be done! The blow-out cracked three jets. B-engine is a goner till we dock and get her overhauled."

Captain Robey groaned. "More time wasted! All right, Mr. Sorrel; we'll have to limp along with two engines."

In response to the first officer's manipulation, the throb of the rockets again burst out. But now the ship ran at only half power. With B-engine out of action, engine D was automatically useless. Sorrel stared at the space chart cheerlessly. Now, more than ever, was their case precarious. They had really needed the quadruple engine power to cut their terrific velocity away from Saturn.

Two engines could do it, with the same fuel supply, in twice the time—theoretically. Actually, because of an involved momentum-relative-velocity equation, there was a mileage loss, not great, but looming vastly important in their unhopeful situation.

When Captain Robey, red-eyed from a short cat nap, took over the space chart two hours later, Sorrel went midships to the bunk room. He found Professor Chesloe staring wide-eyed at Liska's still figure in a bunk. Sorrel read his horror-stricken eyes, took a confirming glance, and then quietly motioned for the little man to follow to the captain's cabin.

Robey took the news in an angry calm. "Liska dead, eh? I had an idea he couldn't stand the gaff."

"Well, after all," bristled Chesloe, outraged, "it wasn't Liska's fault! The man didn't want to die! Internal injuries would kill any man."

"He died from fright, I say," stated the captain. "Mental suicide. Because he knew we had no chance to get back!" Robey twisted his lips in a ghastly, mirthless laugh. "No chance at all! I checked his figures an hour ago. He

had the decimals padded in our favor, but it read the same.

"We will reach zero velocity, relative to Saturn, in ten hours. And then we'll have just enough fuel to give one hearty shove back where we belong. We'll crawl back to Saturn, slowly but surely. But it will take three months!"

Sorrel's spine crinkled. Chesloe gaped and stammered.

"Of course," said Robey maliciously, as though enjoying it, "we aren't rationed to last one month, much less three months. The *Edison* will be our coffin!"

"My Lord!"

THE PROFESSOR had found his tongue. He glanced from one to the other, saw the captain stony-faced, Sorrel white-faced but steady. "Good Heavens, Sorrel! Tell me the captain's crazy! It can't be! Sorrel, that isn't true, is it!"

The first officer nodded almost imperceptibly. Captain Robey turned back to his chart with an expression of disgust. His voice came to them, although they could not see his face. "Afraid to die—the both of you. Fearing that inevitable end of existence that all men fear. I don't look at death as something to fear. My only concern is that I die in honor, discharging my duty as best I can—a man to the last breath! When it comes is unimportant."

Chesloe stared at the back of the captain's head as though striving to pierce into his mind and fathom his peculiar philosophy of life and death. But he gave up in bewilderment.

"That's your viewpoint!" gasped the little man. "But what about us? What about your men? You can't follow your own steel code without a thought for others! You must dump cargo! Yes, I overheard your conversation with Sorrel on that; the phone was open. You must dump cargo!"

The captain whirled in livid fury. "Never! We go back to Zarnovillo

with full cargo, dead or alive! I am master of this ship!"

"Not a master—an insane tyrant!" screamed Chesloe, his nerves snapping brittlely. "You should be behind bars as a monomaniac, one who thinks he dominates slaves instead of free men. What cold reasoning can stack a cargo against ten human lives!"

The captain's huge bulk loomed suddenly over the little professor, fist upraised. Chesloe choked but did not flinch. Somehow, there was something of amazement, as well as fury, in the captain's eyes. Sorrel stepped between, gray eyes level with those of the captain.

"I wouldn't try that, sir," said the first officer firmly.

Robey relaxed. "Still for the underdog, eh? First Liska, then him—I suppose next the crew will go woman. Get out, both of you!"

Sorrel half dragged the little professor from the room, and took him aft to the bunk room.

"I'm not afraid," spluttered Chesloe, sinking to a bunk. "Not afraid to die. But I can't see anything as unhuman as Robey, willing to sacrifice life so cheaply—to a senseless, meaningless code. Isn't there anything we can do?"

"About the captain? No. He's boss with a capital 'b.' I have to side with him whatever my personal opinion. But he's not insane, Chesloe. It's just his passion for the system whose cold standards he's followed for forty years. His heart has become cold and hard, tempered by bleak space itself—but I have to admire him!"

"What about the crew?" asked Chesloe. "Do you think all those men will take it so calmly, when they find out?"

"That's what I wonder," said Sorrel, his face moody. Without a further word he tumbled himself into a bunk, falling asleep with the hardened ease of the inveterate spaceman. Chesloe

laid himself down presently, trying hard to forget the corpse in the corner bunk.

EVERY THREE HOURS a buzzer signal rasped harshly in every part of the ship. It was the relief change. Spacemen slept three hours out of every nine. First Officer Sorrel gulped down his tasteless biscuits, dry but highly nutritious, and made his way forward. As he passed from the officers' bunk room into the main companionway, he heard a subdued murmur coming from aft, and the sound of clumping shoes. Sorrel whistled to himself and fairly ran toward the captain's cabin.

He entered precipitately. "Your pardon, sir, but the crew is coming forward!"

Captain Robey made an instinctive movement toward his hip holster. Sorrel noticed with something of a shock that a pistol stock stuck above the leather. Captains armed themselves only in very alarming circumstances. But then, crews came from aft, in a body, only in equally precarious situations.

"Sandy" McQuale was at the head, grim-faced. Behind him was his full complement, seven men. Their faces had a half-abashed, half-determined look. Sandy stepped a little way into the cabin. The men clustered in the doorway.

"Spit it out!" growled the captain without preamble.

"Begging your pardon," began the Scotch engineer mildly, "for thus intruding in your office——"

"Get to the point," commanded Robey coldly.

"Well, my men," continued McQuale, "are getting a bit restless, wondering what is going on forward, and what all is in the wind for us aboard this ship. Plague take it, I assures them again and again it's simply a little off-course matter, but they want assurance, sir, from your own mouth, begging your pardon."

Captain Robey burst out into a roar. "Assurance of what? You men are tending the engines, not cracking your brains about course! That's my work and Sorrel's. Your job is to keep your engines going, whether I pilot you to hell and back!"

"Oh, we understand that, sir," said Sandy calmly. "But this trip being a bit different from the others, my men were sort of wondering if they could find out——"

"We want plain figures on the return course——"

"And whether we have to dump cargo!"

Two voices from among the crew had supplied the words which McQuale had been loath to use.

Robey's face went red. His eyes glanced accusingly at the first officer. Sorrel whitened in rage and gripped the handrail in back of him fiercely. The captain thought——

"Before you dump cargo," said Robey, his voice crackling through the tense silence, "you must dump my dead body! Now get back to your jobs, every man of you!"

Something of a growl came from the massed figures. Quite by accident McQuale stumbled forward, pushed off balance by an inadvertent elbow from behind. Like a flash Robey whipped out his pistol, leveled it.

SOMETHING seemed to snap in the laconic Scotchman at the sight of the pistol so coldly aimed at him. "You may as well know, Captain Robey, that my men know we're short of fuel—mighty short. One of them spoke to Liska before he died; Liska gave him the plain facts. To be brief, captain, it's dump cargo and——"

"Yes, dump cargo!" came a chorus from behind the engineer.

Robey's beefy face ran a spectrum of colors and finally became dead-white. A tempestuous rage smeared his features

into a mask of devilish fury. Sorrel, at his side, clutched his arm. Robey shook him off fiercely, took a step forward, menacing the men with his pistol.

There was a flurry of movement among the men facing the gun. Long hours of brooding and talking over the grim doom facing them had given rise to desperation. Sandy flung his arms wide, tried to block the forward surge of maddened men. Sorrel's eyes widened as he saw a smaller figure pushing forward among the men.

In split second action Captain Robey, with a sneer on his face, had aimed. First Officer Sorrel made a useless dive for the gun. A shot rang out, but the bullet that was meant for the mutinous crew lodged itself in another heart.

Professor Chesloe, a stunned surprise on his face, staggered forward. Sorrel caught his falling body. Captain Robey stood with the smoking pistol, bewildered. McQuale and his men remained frozen at the door.

"How—how did this happen?" gasped the captain.

Professor Chesloe straightened in Sorrel's arms, resisting his effort to carry him away; his pinched face, a deathly white, raised to the captain.

"I'm not afraid to die, captain," he whispered, a tiny smile twisting his lips. "That's your code, isn't it—not to fear death? Just so it comes with honor?"

"Lord!" Robey could say no more.

Chesloe made a strange little whimper, and spoke again: "Not to fear death—with honor—good code—captain——"

He tried bravely to say more, but a welling of blood filled his mouth. Death sealed his eyes and lips. And in that minute between the shot and the little man's death, some metamorphosis went on in Captain Robey's mind.

"Yes," he said, after a long, unbroken silence. "Yes, a good code—but the price——"

A fire seemed to die in Robey's hard eyes. Presently he said, in a strange

tone: "We dump cargo! What cold reasoning——"

He was thinking, of course, of the little professor's own words. The men at the door coughed, staring at the bowed head of the captain, waiting for definite orders to toss out the cargo. But Robey had more to say.

"He wasn't afraid to die, was he? He gave his life for you, men, remember that. It was mutiny from a crew of white-livered cowards, and the bravest man aboard ship had to die. All right, get out! Mr. Sorrel, superintend in the cargo hold. It's my orders, so you won't be held for it at port."

The first officer watched the men file away—both subdued at the death of Chesloe, and overjoyed at the thought of being saved from a ghastly fate. Sorrel had stayed to say something, but the captain frowned forbiddingly, tersely commanding him to go. Down in the hold the crew sweated with a will, packing the sundry boxes and bales in the

side locks where a man in a space suit methodically shoved them free of the ship.

Sorrel, in charge of the work, heard the faint shot from forward. He knew, too, what it signified.

The *Edison* limped into port two weeks later, minus a cargo, captain, pilot, and the lone passenger she had carried leaving Jove Station. Somewhere out in the brooding void floated what had been in her hold, and not far away three gray-shrouded bodies. For it was bad luck, as the crew agreed, to carry back to port any person dying en route.

First Officer Sorrel, protected from stigma by the captain's official log, absolving him from connection with the release of cargo, stared back into the gloomy space from which he had just come. He had just gone through one tiny chapter in the saga of space travel. He felt that now, more than ever, had the pitiless code of man's advent into space fastened itself to him.

