

KORIMBA.COM

STORY IN ENGLISH

FRANCIS GEORGE RAYER

ERROR POTENTIAL

Sam's hand closed over a shining lever at his side and the forward tubes began to murmur with thrust that would eventually end the three-hundred days journey of the Greenflax across space. Ahead and below through the control room port, and pin-pointed by instruments across twenty light-years, lay their target : an Earth-type planet circling a sol-character sun.

" Landfall, Captain," a man's voice said behind him.

Sam did not look round. " Get me Captain Payfold on the radio."

" Yes, sir."

Steps departed and Sam scanned the multitude of instruments at his elbow, and the planet below. A remote white glimmer suggested polar ice. Nearer, cloud obscured land-masses and oceans. Promising, Sam thought. He would have hated to come twenty light-years to find calculation and instruments had been in error. But then, they never were.

The altitude meter had dipped fractionally below 1000 miles and he corrected automatically. Orders said preliminary investigation was to be at 1000 miles, and the Greenflax's sister ship Solinox was visible a mile to his flank at correct altitude, a silvery mote that had stayed near for ten long months. Sam hoped Captain Payfold would not relax from following instructions to the letter now that planetfall was in sight.

Tomlinson came back into the cabin, hasty even beyond his usual quick briskness.

" We can't raise the Solinox, Captain Rivers !"

Sam turned his gaze from the green and brown below. " Why not?"

" They don't answer !"

Sam sought for explanation on his second-in-command's youthful face and found none. Tomlinson's vividly alive eyes strayed through the port to the Solinox, and returned.

“ She looks safe enough, Captain,” he offered.

Safe, and riding level, with a thin plume of vapour from her forward tubes, as there should be, Sam saw. Perhaps her operator was momentarily on other duty, or watching the planetary surface unfold.

“ She does,” he agreed. “ Try again.”

Alone, his gaze travelled once more over the uncountable dials, gauges and indicators. Ten months were a long time for four men in a ship, he thought, and Captain Payfold’s operator could be excused on that ground alone.

The Greenflax was smooth and steady as if those twenty light-years had been a mere hop to a planet in Earth’s system, he noted with satisfaction. Nothing showed that for almost ten months she had been pushing through space at a relative velocity nearly thirty times that of light itself. The winds of the void that had screamed past her hull had left no mark. It was ironical that the only accident had been a mere twenty-four hours before, when their speed was only several thousand miles per minute. The meteorite had been no larger than a pea, but had passed through the ship like a bullet through butter. One man had been in its path — Waterlow, whose genius had discovered an Earth-type planet across those twenty light-years of space, and whose technical ingenuity had given the ships devices making the journey possible.

Sam jerked down the switch of the control cabin communicator.

“ Any luck with the Solinox ? ”

“ No, sir.” The radio operator’s voice sounded metallic. “ I tried immediately Mr. Tomlinson fetched me from watching in the sick bay, but they don’t answer.”

“ Try a blinker light on them.”

“ I will, sir.”

Sam hesitated with his thumb on the switch. “ How is Mr. Waterlow ? ”

“ Pretty bad, sir, I’d say. Still unconscious.”

“ Very well. I’ll have Tomlinson watch him while you’re signalling.”

It was rotten luck on Waterlow, Sam thought! Within sight of the planet he had discovered and named, then, pisset, a tiny fragment of immeasurably hard debris through the shoulder too near the heart. The ship’s warning system had bleated; they had plugged the holes that whined atmosphere into space. But living flesh was not

thus easily repaired.

Watching the planet Waterlow had named Cenis, Sam evaluated the morale of his crew. It was good. Tomlinson was smart, quick and reliable. The operator, Sparks Robart, methodical, slow of speech, but utterly to be trusted. The ship herself was as nearly foolproof as any mechanical device could be.

He scanned the gauges and examined the Solinox for any sign of her signal lamp. Captain Payfold was a good man, but sometimes stubborn and hasty. If all was well he was capable of ignoring the blinker and sending his operator back to the radio in his own good time.

Sam depressed the switch that gave him Robart. " Ask them to acknowledge at once — if they can drag themselves from the view !" he snapped.

Irritation at Payfold's silence made his lips a thin line in his lean face. Confident himself, ready to take whatever came, he nevertheless believed in the wisdom of routine. The Solinox, speeding sweetly on, but silent, and with her blinker light dead, was exasperating. He noted that her altitude was a trifle under his own, looked at the meter, and saw he himself had dropped to 990 miles. Then Morse flashed, a distant pin-prick, and was gone. Almost at once the communicator awoke with Robart's voice.

" All in order, Captain."

" Then why the silence ?"

" Their receiver antennae circuit was burned out, Captain. They're repairing it."

" Very well. Send Mr. Tomlinson here from sick bay."

He waited, pondering on the immense strength yet utter fragility of the two ships. Strong as man could make — yet depending upon hair-thin wires for light, communication, instrumentation. Lucky that meteorite had damaged nothing, he thought. But damnably unlucky Waterlow had been in line with its fantastically rapid trajectory through space.

When Tomlinson came Sam went into the tiny sick bay. Waterlow had not moved. His face was white, his eyes closed, his breathing so shallow that the bandaged shoulder scarcely stirred. Sam took his pulse and nibbled his lower lip. The speed of the meteorite could only be guessed, and the hole it had made was unpleasant. He was not sure Waterlow would live. All the warning devices and complexity of instruments with which he had fitted the ships had not saved him. Its metal mischief done, the particle had carried the stain of living blood into space.

Back in the control room, he saw that the Solinox was even lower. He thumbed the button to Robart.

“Get Captain Payfold if the radio’s working ?”

There was delay, an interchange of signals, then Payfold’s brisk voice, with its undertone of stubbornness.

“ Captain Rivers here !” Sam could not keep the snap from his words. “ We are supposed to maintain 1000 mile altitude until we have circled Cenis once !”

“ So the slide-rule men said, Captain Rivers.”

A severe background of static failed to hide the perverse undertone and Sam felt annoyance. Payfold believed sufficiently in his own opinion to disregard instructions.

“ What they say is good enough for me !” Sam snapped. “ They found Cenis, analysed probable conditions under almost impossible difficulties, and fitted out the ships well enough to get us here ! They specified a thousand mile altitude —

“ Which is nearly a thousand miles too high to see anything useful, Captain Rivers ! There’s no sign of any artifact or civilisation.” Static blurred some of Payfold’s words. “ So why not go down ? Back on Earth they anticipated every danger. Now we’re here we can see there is none.”

“ Then you won’t keep to their landing instructions ? ” Sam demanded.

“ Not if I think it best to follow my own judgement.”

The radio went dead, leaving Sam scowling at the microphone grille. During their ten months in space he had realised that a certain glory must inevitably surround the first man to tread this new planet, first outside the solar system. Payfold wanted that honour, and was stubborn enough to disregard instructions to get it.

The reproducer from the radio room awoke with Robart’s voice. “ Sorry to cut you off, skipper. A fault in the receiver.”

Sam realised the background static had gone with Payfold. “Inform me when it’s cleared.”

Somewhere in the ship a thin beep, beep commenced, echoed abruptly in the control cabin as a relay in the instrument panel closed. A red panel lit : General danger warning.

Another meteorite, Sam thought. They're thick here !

If so, the sound of impact had not reached him. But the strike could have been anywhere in the ship's mid or aft sections, tripping warning circuits as pressure fell.

At the control room exit Tomlinson met him. His gaze flashed to the red panel and back.

" What happens, Captain ? "

" Another hit perhaps."

The second-in-command's fair head shook. " I heard nothing amidships."

" Then perhaps it's at the stern !"

Sam hurried along the narrow corridor, wide shoulders brushing the steel walls. The fragment that had struck Waterlow had made a sound reminiscent of a high-velocity bullet piercing a tin-can. Forward was the control equipment. Near, high amidships, the radar and radio. A strike there, or in the storage cabins flanking the corridor, would have been audible.

The beep, beep, beep followed them, taken up anew in each section as they hurried to the stern. The ship was long with many bulkheads to give essential strength, and divided radially and lengthwise into a score of hermetically-sealed compartments. No whine told of escaping air. They looked into each cabin, into the fuel storage space, and the rocket servicing alleys aft. There, Tomlinson dropped the plug of metal and welding torch he had carried and crept round the catwalks while Sam checked every dial on the fuel and coolant tell-tale boards.

Tomlinson emerged like a cat from a hole. " It wasn't a meteorite," he stated.

Sam listened to the repetitive beep, beep, momentarily undecided. The mass of gadgets in the Greenflax gave warning — but it was up to one of her crew to locate and correct the damage, defect, or breakdown. A general warning meant something serious. That was all he knew.

" We'd better check everything systematically !" he decided.

The air was sound, the purifiers working. No smoke or hint of leaking fuel caught his nostrils. The beep, beep followed him into every cabin and through every narrow corridor and examination tube of the ship. Frustrated, he returned to the control room, saw the red panel was still illuminated, and began to comb the ship again. When he entered the radio cabin he saw that Sparks Robart had a big panel off.

“Burned out antennae circuit, skipper,” Robart said.

He indicated the wiring and inductances with a screwdriver. Sam eyed it cursorily. Sparks Robart was young, but reliable and wholly to be trusted. Sam liked him. There was no personal animosity, conflict, or quarrel anywhere on the Greenflax. Men able to spend ten months in space were not given to pettiness.

“ First time I’ve seen the like of this,” Robart said. He began disconnecting leads, and cocked an ear at the door, his smooth round face quizzical. “ Trying the warning system, Captain ?”

Sam grunted. “ The ship’s system had jumped on something we can’t spot. Will you leave that and ask the Solinox by blinker to have a look at our outside.”

He left Robart flipping the Morse lamp and burrowed through each of the midships storage cabins, crammed with strapped crates of food and every kind of gear men or ship might need. All was in order.

Robart came out of the radio cabin with his face animated. “Captain Payfold has got a general danger alert as well !”

“ He has !”

“ Yes, sir ! Norris was setting his blinker when I signalled. Captain Payfold wants you to look his ship over from the outside and to ask Waterlow for a guide.”

“ Mr. Waterlow is still unconscious.”

“ So I told them, sir.”

Back in the control room, Sam closed his ears to the endless bleating of the warning system and manoeuvred the Greenflax slowly round the Solinox, studying her from every angle. If there was external! damage, a man could go out in a suit, or in the space tug. But the Solinox’ s silvery shell was intact and perfect.

The two ships drifted into the old relative positions and Sam went into the radio room.

“ Tell them their hull is perfect.”

He read the reply as it came back at forty words per minute : “ So is yours.”

Robart paused, lamp out. “ Captain Payfold is burning Norris up.”

Sam listened to the beep, beep, and scowled. “ Ask him if he’s got any idea of the danger.”

The talking beam flickered and glowed. “Captain Payfold says why the hell can’t Waterlow explain !”

Sam let it pass. Payfold was growing irritated, but knew Waterlow was gravely injured. The distant glow on the Solinox began again :

“ I may land.”

Sam took the lamp and snapped back : “Why ?”

The flickering reply was almost as fast as Sam could read. “Because that’s what we damn well came to Cenis for !”

That — and for glory, Sam thought. The glory was inevitable, and Payfold knew it. He stifled a retort, spelled out slowly “ It is against instructions to land with an uncleared fault,” and put the lamp back in Robart’s hands.

“ It would help if Waterlow could talk, Sparks,” he stated and left Robart to his repairs.

The sick bay was a tiny cubicle in the quietest part of the ship, and Sam ascended a steel ladder clamped against the corridor wall. The beep, beep followed him, fading a little in volume, but unvarying in frequency.

Waterlow’s broad forehead was the colour of white chalk. Flat on his back in the narrow bunk, he breathed shallowly, eyes closed, lips parted and bloodless. Sam dropped on one knee, lips near the injured man’s ear.

“ Waterlow — ”

No movement or change of features showed the word had penetrated the blanket of deep unconsciousness. Sam tried again, realised the attempt was useless, and rose. Waterlow, young designer of the ship’s warning system, would certainly not obey Payfold’s summons.

Outside the sick bay the beep, beep was louder, even more insistent, Sam thought. Tomlinson was emerging from the ladder sink and his brows rose with a question.

Sam shook his head. “ He’s in a bad way. We’ll have to comb the ship inch by inch until we find what tripped the warning system.”

During the hours that followed, Sam began to wonder whether the irritating beep,

beep would ever be brought to an end. In all the length and breadth of the Greenflax no fault could be located. Nervy from the endless bleating, he summoned Robart into the control room. He jerked a finger at the red panel.

“Can you follow the wiring and find what device is initiating this ?”

Robart stroked his jaw pensively. “ Mr. Waterlow was the safety devices expert, Captain.”

“ He’s out. Do your best.”

For the third time Sam departed to examine the stern sections round the main propulsion tubes that had hurled the ship beyond the barrier of light speed. Everything was intact, perfect, and undoubtedly ready to awake again with thunderous thrust if he operated the drive controls. He had completed a painstaking search on hands and knees when Robart fetched him. Part of the control room panel had been removed, and at least a hundred coloured-coded leads ascended from the warning devices and remote indicators into a conduit tube integral with the nearest bulkhead. Robart took him to a tiny space above, indicating a triangular section filled with connection boxes, relays, and a multitude of leads which disappeared into other conduits in every direction.

Sam wriggled back out of the hole. “ You can’t do it ?”

“ No, sir.” It was an honest admission of failure. “ All the wiring goes through the ship’s structure. Most of the gadgets are fitted in odd corners useless for storage. Give me six months and I might make sense of it. Under that — no.”

Sam looked again into the actuator and relay compartment; which reminded him of a city telephone exchange compressed to pocket size. He withdrew his head and closed the manhole cover.

“ Go ask the Solinox if they’ve found anything.”

Alone, he listened to the beep, beep that never ceased, and then descended to the control room. A circuit fault was impossible. In no circumstance could it arise simultaneously on both ships. Moreover, the warning circuits had automatic indicators which called attention to conditions of internal circuit fault. Thumbs in belt, he scowled at the red tell-tale until Robart’s voice came on the control room speaker.

“ Captain Payfold has not located any defect, and states he intends to land.”

“ Tell him not to do so!” Sam felt his nerves, jangling from the eternal beep, beep, draw tight. “ Tell him it is against orders !”

There was a delay. “ Captain Payfold says his position is one of equal command,” Robart’s voice stated at last. “ In his opinion landing is now justified, and he intends to go down.”

Sam swore. “ Tell him it is without agreement from me !”

He sat on the bucket seat before the lit panel and mentally checked the warning systems he knew. Ship air pressure. There was no leak. Air condition. Perfect, free of any suspicious taint, and correctly balanced. Fuel. Safe and in order. When he had finished the list the beep, beep still intruded itself. The ship knew more than he himself, Sam thought ironically. A pity she could not talk. Every possible examination had been made from inside. His next move could be a detailed check of her outside.

He had half risen when Tomlinson’s voice came rapidly from the grille. “ Can I see you in sick bay, Skipper ?”

“ Coming! ”

Sam hurried, shoulders brushing the steel walls. Tomlinson’s voice was uneasy. Hastening up the ladder, Sam wished someone aboard either ship had medical skill. Medical stores and instructions were available in plenty, but no man able to treat a deep wound with the specialised care it needed.

Tomlinson stood in the narrow door, hands on the cold metal and his usually animated face grave.

“ I think you’re too late, Skip.”

He moved and Sam went in. Waterlow was pale, still, in the same position — and not breathing. Sam examined him and drew the cover over his face.

Outside the sick bay, he closed the door. No one on either ship could have saved Waterlow.

“ We’re on our own, then,” Tomlinson said quietly.

Sam listened to the repetitive beeping and nodded. Waterlow, only man who fully understood the intricacies of the complex warning devices, would never explain, now. A ship held too much gear for any one man to have a full and specialist knowledge of it all. Button-pushing was easy ; the ability to state what happened another matter.

The beep, beep was loudest down at control-room level. Sparks Robart came from the radio room.

“ The Solinox states she definitely intends to land, sir,” he said.

Sam mentally cursed Payfold’s perversity. “ Report to them that Mr. Waterlow is dead, that the general warning is still in action, and that I refuse to come down with them !”

Setting down a ship was a long and complex job. The routine in instructions occupied many hours, and a general warning always delayed any stage until the danger was cleared. Chewing his lip, Sam realised that he was trusting the ship’s devices more than Payfold’s judgment. Payfold, not without some justification, decided all was in order and it was time to go down. The ship said something was not in order . . .

From the nearest port Sam saw that the Solinox was slowly beginning to lose altitude, breaking the twin formation for the first time in ten months. Below, Cenis was quiet and beckoning. High power binoculars revealed no road, city, village, or product of civilisation. No light of any kind had glimmered on her dark side, and no radio emanated from her surface.

“ Shall we go down with them, Captain ?” Tomlinson asked behind him.

Sam put aside the binoculars. “ No ! I’m going in a suit to check our hull !”

The second-in-command looked through the port at the mottled surface below. “ You believe in the ship’s gadgetry, Captain.”

“ Absolutely, until I’ve proof otherwise. Waterlow always knew he’d come, and a man doesn’t fool around with his own skin. The ship says danger. If we can’t spot the cause inside, then it’s outside — if we’ve wit enough to find it !”

“ The Solinox couldn’t see anything wrong with us, nor we with them.”

“ That’s not conclusive.”

Sam started down the narrow corridor. Tomlinson shrugged and followed. In his glance Sam noticed a little doubt, and something of envy. The distrust would be for the Greenflax’s warning ; the envy for their opposite numbers in Payfold’s ship, now to be first on Cenis.

The suits were of highly flexible reinforced plastic, but awkward because of their thickness. Sam climbed through the neckhole and pulled the suit up, worming his hands down to the integral gauntlets. Straps secured magnetic sole-plates that made walking round the out-side of the ship possible. He abandoned the radio pack as unnecessary, and Tomlinson helped lower the spherical globe of insulated material over his head and secure it on its seating.

Alone in the air lock, Sam watched the outside pressure drop, and felt the suit begin to balloon to its rims of brading. Space and lock pressures equal, the red light on the lock door went out. He swung the door open and moved cautiously through.

Cenis was below the ship, almost hidden by the bulging metal. The sun was high, shining on the steel so that his eyes hurt, and he walked slowly up like a fly on a wall, conscious of a queer prickling in his scalp and aware that a few pounds of magnetic attraction were his only link with ship and life itself.

On top of the Greenflax he studied the hull minutely. As the minutes passed he found no fault, and began to realise he would indeed discover none. The hull, brilliantly silver on her sunward side, inky black beyond, was perfect. Neither sunshine nor the prying beam of his torch could find scratch or defect. Top half, port and starboard, were smooth and clean as if the ship had never threaded twenty light years of space. He worked down methodically to the ports half-way, examined the two tiny meteorite holes, plugged from inside, and began to go down under the ship. Here, Cenis shone back reflected light on the vessel's dark side.

The prickling began again, almost an actual movement of his scalp. The planet-light was dim, and he snapped on the torch again, plodding like a man with feet in glue. His hair prickled again and he frowned, hung the torch on his belt, and checked the fishbowl fastenings. A faint, ghostly halo hung round his hand.

He wagged his fingers before his face, breathing momentarily halted. The halo was brightest at his finger-ends. He held a hand above his head, and extend a finger. A corona of electric fire danced round the gauntlet point, blue and wavering. He placed both hands on top of the fishbowl, felt his hair lie down ; removed them and experienced the creepy pull of each hair standing up.

Only the bottom of the ship ! he thought. Because there he was near Cenis !

It took fifteen minutes to reach the air-lock. As he moved round the ship away from Cenis his hair began to settle and the corona discharge round his hands faded, then was lost completely in sunlight. From the lock he looked back, craning to see the underside of the ship. A hazy purple line of electric fire hung along her.

Sweat trickled down his face as the inner pressure slowly filled the lock. He jerked open the door the moment the red light faded, and dragged furiously at the screw fastenings of the suit headpiece. The beep, beep, beep again filled his ears. It had never ceased — and the damnable thing was, that the ship was right, he thought as he yelled for Robart and Tomlinson.

Robart came first. " You've found something — "

Sam cut him short. “ Get the blinker on to Payfold and tell him not to go lower !”

“ But—”

Sam almost pushed him into the corridor. “Get moving !” The ship was right. That made Payfold wrong !

Robart had clattered from hearing when Tomlinson came in. “ We’re maintaining altitude ?” Sam snapped.

“ Yes, sir.”

“ Then see we do !”

“ We’re on automatics.”

“ Good !” Sam felt momentarily more safe. “How low has the Solinox got ? ”

“ She’d dropped a good many miles when I last saw her.”

“ I see.”

Sam went into the control room. Payfold’s ship was abreast, but much lower. No flicker of Morse came from her. Tomlinson stood in the doorway looking puzzled.

“ You’ve found what’s wrong with the ship, Skipper ? Or it’s something on Cenis ?”

“ No,” Sam kept his gaze on the Solinox, hoping the light would come. “ The ship alone is sound and perfect. So is Cenis, for all I know. But bring the two into proximity — and you get the damndest most enormous electrical potential-difference I’ve ever met ! A few million volts will spark a few feet. Given a good thunderstorm on Earth, we get lightning miles long. I’ve stood on a high building and felt my hair on end. But here — a thousand miles is scarcely enough ! ”

Breathed hissed between the second’s teeth. “Between us and Cenis there’s a voltage difference, just as between thunderclouds and Earth—”

“ Exactly.” No Morse had yet appeared from the Solinox. “ The reason may even be similar. Space isn’t absolute vacuum. You can rub electrons off ebonite with a flannel. The wind rubs plenty off thunderclouds, until the voltage breaks down the atmosphere’s insulation. Our trip from Earth has had a similar result. Plenty of particles are scattered over twenty light-years of space, our speed was high, and the medium a perfect insulator. An ideal set of circumstances !”

The cabin speaker came to life. " Robart here. They don't answer."

Payfold's stubbornness, Sam thought. " Keep trying, Mr. Robart. Worse things than fused antennae circuits can come from this ! If they don't answer I'm going across in the tug."

Sunlight streamed through the transparent nacelle of the tug as it drifted out of the lock. Sam felt electrical tension return as the shading influence of the Greenflax ceased. A dull phut sounded on the tug's panel, and a spring fuse indicator flipped up a red tab. A halo of shimmering mauve light hung at the tip of the vertical aerial rod for'ad.

The tug gained speed under the drive of her tiny thrust motor, slanting obliquely on course towards the planet below. Sam noted that the Solinox' s reduction in altitude had greatly increased the distance between the ships. His scalp twitched and raising a hand he felt his hair rising under the tension of the frictional charge that had already blown the radio. When he peered through the nacelle at the remote Solinox minute sparks crackled from his hair to the transparent wall. He adjusted Robart's lamp and began signalling. Payfold would surely reply if he saw the tug. But no answering blink came from the ship, trailing a thin haze from her steering tubes into the near vacuum.

Sam put down the lamp and gave the tug more speed. An irregular spluttering began on the control board, and he saw static sparks leaping the fused antennae circuit, some to the ground of the board's metal brackets. The oppressive feeling of tension increased, as preceding a thunderstorm before the mounting potential broke down the insulation of the air, and neutralising bolts sped between opposing poles of cloud and earth. A corona of static hung round the tug's bow, and wavering fingers reached from the aerial rod.

Half way between the ships, Sam looked back. The movement brought one hand within a few inches of the plastic nacelle and a spark snapped over, tingling like the discharge from a leyden jar. He withdrew hastily, re-estimated the distances, and saw that the Solinox was travelling fast, leaving him midway upon a continuously lengthening course. When he returned his gaze to the Greenflax he saw that static was ionising his rocket trail, so that a long purple serpent snaked after him.

With more thrust the distance to the Solinox diminished, became stable, then slowly grew again. Ozone smelt strong from the spitting discharge of the antennae circuit, and Sam knew he had failed. He was either unobserved, or Payfold was deliberately running from him. An SOS with the lamp brought no answer. Sam grunted to himself, and took the tug up and back in a long curve. Damn Payfold's stubbornness, he thought angrily.

Back on the Greenflax, Sam wondered if here at last was a problem he could not surmount. Courage, confidence, and a rather venture-some self-assurance had gained him his position as Captain, but were unable to help now. With the ship set on a course which would keep her above the Solinox, but at full altitude, he stood scowling at the instruments, aware of the red warning panel and unceasing beep, beep, beep from equipment that had detected the vast potential difference between planet and vessel.

Tomlinson came in, his quick features moulded into resignation. A sheaf of typed figures was in one hand.

“ I’ve looked out the course to get back to Earth, skipper,” he stated.

The Solinox was tiny below, sun shining silvery on her. Sam removed his gaze from her to Tomlinson.

“ What makes you think we could land even if we went back ?”

Visible shock crossed the second’s face. “You think our charge would remain ?”

“ Probably. It might even increase. Space-friction on our hull has done what flannel does to ebonite. Free surface electrons have been rubbed off, leaving a surplus of opposite polarity. Another ten months going back would continue the process.”

Tomlinson looked pale. “ If so, we can’t land anywhere !”

The beeping in his ears, Sam did not reply. That problem was one neither he nor the push-button warning devices of the Greenflax could answer.

The second-in-command gazed through the port at the vessel far below and licked his lips. “ What will happen to them ? ”

“ You know as well as I,” Sam said flatly. “Given a fixed potential and decreasing distance, nothing happens until the flashover point is reached — ”

He judged that the Solinox was approaching a hundred miles distance, making her nine-hundred above Centis. To the unaided eye she was only a glint visible because of the clarity of the near-vacuum between, and sun on her silver back. Robart with the morse lamp was wasting his time, now, he reflected. Even if Payfold chose to look, he would not see the talking speck of light.

An hour drifted by and Sam felt his inner tension growing to match the force outside. He prowled the ship, never free from the beep, beep of the alarm, often returning to gaze through binoculars at their sister vessel. Robart had abandoned signalling or trying to mend the radio circuits, impossible to keep intact under the heavy static

charge.

As he walked Sam strove to find some solution, and an idea began to form. They could not make planetfall because of the dissimilarity in electrical potential between ship and Cenis — therefore the voltage must be neutralised. The only possible method was to let the charge leak away at a rate which would cause no damage. Only a half-solution which posed another problem, he thought.

He returned to the control room. Tomlinson was watching their course on the instruments. Orbital speed had been sufficient to maintain altitude, and they would soon be over the planet's night side.

Sparks Robart sat in an unused bucket seat. "How low will the Solinox get before lightning strikes her, Skip ?" he asked.

Sam's lips twitched. Robart's tone showed he was thinking of his opposite number. Norris had been a good man.

" Depends on the actual voltage," he said heavily.

Probably Waterlow could have computed a figure, but it would have meant little. Static electricity was high voltage. He thought of charged jars. High voltage, but low current. A man could take ten thousand volts on the knuckle from a leyden jar and feel less than he would from a hundred-volt, high-current source. A jar could be discharged by a single strand of cotton touching its inner pole. Infinitely high voltage. Infinitesimally low current . . . The association of ideas came like an inspiration and Sam struck a fist in his palm.

" If we could lower a semi-conductor, and wait until the charge has leaked away !"

Robart looked at him quickly. " A thousand miles of semi-conductor Captain ? "

" We wouldn't need that much ! The Solinox can't be over six hundred above Cenis, now. Furthermore, every bit of leakage is helping neutralise us. A few miles of cord and wire rope, with a metal object on the bottom, would give us an extended point to increase leakage !" He recalled how a charged sphere would discharge itself when a pointed wire was added to it. Electrons flowed from the point into the air, finding their way to the opposite pole. The Greenflax was high, but the corona proved she was not in perfect vacuum, and that traffic of electrons was arising between ship and planet.

" I'll look in stores !" Tomlinson stated abruptly.

Sam took up binoculars and looked for the Solinox, whose altitude would give them a safe minimum at which to hover. Within fifteen minutes Tomlinson was back..

“ There is five thousand yards of thin steel cable, and two thousand yards of half-inch hemp rope.” Enthusiasm shone in his eyes. “There’s lots of electrical cable and wire in Robart’s store. Some is instrument wire winding several thousand yards to the pound.”

Robart nodded. “ For H.T. generator repairs — ”

“ And strong enough to wind out first,” Tomlinson declared. The rest can follow. There's a power windlass we can place in the lock.” They put on suits after bringing the equipment out from store, and began with a spool of copper wire. When a hundred yards had been paid out sparking from wire to ship became uncomfortable, and they ran it over a metal pulley at the edge of the step. The cord followed. Winding it out took nearly an hour, and Sam sweated as he helped join it to the first length of steel cable. When he looked out, magnetic boots clamped firm, he saw a long, thin line hanging from the ship’s side, outlined by electric fire that glowed its whole length.

When half the cable was out they rested, returning to the inner part of the ship, headpieces removed. The muted beep, beep struck Sam’s ears as he undid the clamps.

“ Think it will work ?” Tomlinson looked doubtful.

“ It may. Going lower will help, provided we see stratosphere drag doesn’t break the thinner stuff low down.”

From the control room port Sam searched for Payfold’s ship. As he stared, a fourfold lightning flash illuminated a high ridge of mountains small as a toy, joined, and lanced skywards faster than thought. Streamers of vivid flame spread, wavered, and united again. For a fleeting moment the Solinox stood clear, focus of the racing discharge, toppling bow down like a sinking ship, then darkness returned, broken by a second smaller flash that struck some metal object, huge but shattered, at a lower altitude.

Sam felt deep regret — if Payfold had only waited . . . He frowned, thoughts suddenly drawn back, and realised the ceaseless warning bleat had stopped. He met Tomlinson’s eye.

“ It’ll begin again when we reduce altitude, but will be all right if we descend slowly, waiting for the ship’s charge to leak away.”

At last planet and ship would be equal, and Cenis no longer at impossible relative potential. There would be honour and glory, for both were inevitable. But not for Payfold, Sam thought nor for him-self. Waterlow had brought them alive to Cenis ...