

## The Ethics of Madness



Tau Ceti is a small cool-yellow GO dwarf with four planets. Strictly speaking, none of the planets is habitable. Two are gas giants. The third inward has no air; the innermost has too much.

That innermost world is about the size of Venus. With no oversized moon to strip away most of its air, it has an atmosphere like Venus': thick and hot and corrosive. No human explorer would have marked it for colonization.

But the ramrobots were not human.

During the twenty-first and twenty-second centuries, the ramrobots explored most of what later came to be called "known space." They were complexly programmed, but their mission was simple. Each was to find a habitable planet.

Unfortunately they were programmed wrong.

The designers didn't know it, and the UN didn't know it; but the ramrobots were programmed only to find a habitable point. Having located a world the right distance from the star to which it was sent, the ramrobot probe would drop and circle until it found a place at ground level which matched its criteria for atmospheric composition, average temperature, water vapor, and other conditions. Then the ramrobot would beam its laser pulse back at the solar system, and the UN would respond by sending a colony slowboat.

Unlike the ramrobots, the man-carrying slowboats could not use interstellar ramscoops. They had to carry their own fuel. It meant that the slowboats took a long time to get where they were going, and there were no round-trip tickets. The slowboats could not turn back.

So We Made It was colonized because a ramrobot elected to settle in spring. Had it landed in summer or winter, when the planet's axis of rotation points through its primary, Procyon, it would have sensed the fifteenhundred-mile-per-hour winds.

So Jinx was colonized. Jinx, with a surface gravity of 1.78 and two habitable bands between the ocean, where there is too much air, and the Ends, where there is none at all. Jinx, the Easter Egg Planet, home of men and women who are five feet tall and five feet

wide, the strongest bipeds in known space. But they die young, of heart trouble.

So Plateau was colonized. For the innermost world of Tau Ceti is like Venus in size and atmosphere, save for one mountain, flat straight-sided mountain is forty miles tall, and its nearly flat top is half the size of California. It rises out of the searing black calm at the planet's surface to the transparent atmosphere above; and that air can be breathed. Snow covers the peaks near the center of the Plateau, and rivers run lower down - rivers that tumble off the void edges of the Plateau into the shining mist below. The ramrobot landed there. And founded a world.

Several centuries passed.

Up from the Plateau on Mount Lookitthat came Douglas Hooker, rising like a star. He was the only occupant of a four-man exploration craft. Fifteen years ago he had stolen that ship from the UN, the government of Earth, and taken it to Plateau. He didn't dare return it. The laws of Earth were far stricter than those of Plateau.

And he couldn't stay on Plateau.

Plateau would not have complained. Hooker was a cured maniac, a guaranteed model citizen. An autodoc had adjusted the chemistry of his body, canceling the biochemical cause of his insanity. Two years of psychoanalysis, hypnoanalysis, and conditioning had attacked his memories, altering them in some cases, reducing or enhancing their importance in others. Conditioning had seen to it that he would never remain far from an autodoc; his chemistry would never again have the chance to go haywire in that particular fashion.

But he'd done a terrible thing on Plateau. He couldn't stay. He couldn't bear the thought of someday facing Greg Loeffler.

The world below changed from a vast white plain to a round white ball. Hooker's fusion drive glowed hotter and bluer than any sun. He was using the hydrogen in his tank. Though his ship carried a model of mankind's first "safe" ramscoop, he was not yet moving, fast enough to use interstellar hydrogen for fuel.

When Plateau was in danger of being lost against the stellar background, he turned the ship toward Wunderland. He'd decided on Wunderland months ago, when he really began to believe that he

would be well someday. Wunderland was small, of light gravity; a nice world, but distant from Earth. Wunderland's technology was always several decades behind the times. The Wunderlanders would appreciate an extra spaceship, especially one as modern as Hooker's.

They might jail him - though he had served a term on Plateau, concurrently with his cure. But they wouldn't kill him. And Hooker could wait out a jail sentence. His health was perfect. Though he was eighty-seven years old, he might have been twenty. Earth's medical sciences had become very good indeed. Men and women walked the Earth in places they had trod three centuries earlier, and the medicine of their time was long obsolete.

(Yet ... look again. Twenty? Never. He acts *scarred*. Neither years nor scars show in the flesh, nor around the eyes, nor in them. But behind the eyes there are scars. It takes decades to form scars so deeply in the crevices of the brain that they show through to the surface.)

Hooker turned toward Wunderland and set the autopilot. His motions were quicker and surer than they had been for a long time. He was leaving Plateau, and he left a weight behind. Now he could begin to forget.

Hours later a second star rose from the Plateau on Mount Lookitthat. It turned slowly, questing, like a hound sniffing out a trail. Then it fixed on Wunderland and began to accelerate.

OCTOBER, AD. 2514      SAN FRANCISCO

He took the news as if he'd expected it. He looked at the human doctor for a long moment after she had stopped talking; then he slumped, back and shoulders dropping, chin nearly touching his chest. He mumbled, "I always knew I was different."

"Is that a crime, Doug?" Dr. Doris Hahn might have been any age beyond thirty. She was small and oriental, and she had had that look of great wisdom long before she acquired the wisdom itself.

"Seems it is," said Doug Hooker. He was eighteen years old, thin, with blue eyes and straw-colored hair. "I can't do anything about it, can I?"

"Sure you can! Why, you need never know you've got it, any time during the rest of your life. There are millions of potential paranoids walking this world and others. And diabetics, and epileptics, and schizophrenics. Nobody knows the difference."

"*They know.*"

"Well, yes."

Doug looked the doctor in the eye. "Why? If they need never know, why tell them? How will this affect me, Doctor? What am I supposed to do about it?"

She nodded. "You're right, of course. It will affect you in two ways.

"First, the Fertility Board will probably not pass a potential paranoid. If you want to have a child, you'll have to do something so spectacular that the Board itself must recognize you as a genius. Something like inventing hyperdrive."

Doug smiled at that. Hyperdrive was "the moon on a platter."

"Second," she said, "you must never be out of reach of an autdoc for more than a month, for the rest of your life. Do you understand? Up to now your parents have had this responsibility. Now you're an adult. You must get to a doc every month so that it can stabilize your metabolism. Your body is chemically unstable. Without antiparanoia substances you can go insane."

"That's all?"

"That's all. Best go every two weeks to give yourself some leeway."

"I will," said Doug. He wanted to leave. The news had been as bad as he had expected, and he'd expected it for years. He had been born into a paranoid body. It was a thing he couldn't tell even to Greg. He wanted to leave, to hide somewhere, to lick his wounds. But...

"How bad is it, Doctor? I mean, what would happen to me if I missed six weeks instead of a month?"

"The first time, very little. Your thinking processes would change a little, not enough to notice. When the doc readjusted you, you wouldn't notice that change either. But the second and third times would be worse. You see, Doug, a large part of being insane is having been insane. If you were paranoid for a year, a doc couldn't cure you. Your year of insanity would have formed habits. The doc

would change your metabolism without changing your paranoid habits of thinking. You'd need a human psychotherapist."

Doug wet his lips. He thought the question: What is it like to be paranoid? How does a paranoid think?

He didn't want to know. He said, "'Bye, Doctor," and he got up and left. He thought he heard Dr. Hahn call something after him, but he wasn't sure.

#### **JUNE. A.D. 2526 KANSAS CITY**

At the age of thirty Douglas Hooker thought he knew himself pretty well. He had long known that he was a man of habits, so he had trained his habits. Each weekday he entered his office at just ten o'clock, and the first thing he did was to use the desk doc.

He came in that Thursday morning at just ten o'clock, still wearing the smile with which he had hailed his good mornings at the other employees of Skyhook Enterprises. He hadn't seen Greg, but Greg was always early or late - usually early. Probably at work already. Doug sat, opened the panel in his desk, and inserted his hands.

There were twin pricks in the balls of his middle fingers. The doc was taking a blood sample. Doug waited until the green light came on, then removed his hands. His nails gleamed.

The desk doc was small; its repertoire was limited. It could not repair injuries or exercise small unused muscles, as could a full-sized drugstore doc. It could detect infections and fight them with wide-spectrum antibiotics; it could supply needed vitamins; it was a fine manicurist, it could stabilize Doug Hooker's unusual metabolism, using two phials of biochemicals stored in its innards. If it ran out of something or if it sensed the presence of some medical anomaly that should be treated, it would flash a redlight.

Doug frowned at the papers in his In basket, then sighed and went to work. There was no sound from beyond his office; there was nothing to distract him. Yet he worked slowly. He couldn't concentrate. It was not spring fever; city men didn't get spring fever, living in a world which was mostly city. It was the feel of something impending.

It came at noon, with Greg Loeffler's voice in the intercom.

"Doug? it's here. Drop whatever you're doing and come over."

Doug put down half a sandwich and went out, walking fast. The bright morning sunlight made him blink. He took one of the carts in front of Admin and drove it across to Design. He was about to park in front when his eye caught a shadowy bulk standing four stories tall around to the side. He drove over.

Greg stood waiting for him, leaning one-armed against the huge truncated cone, grinning like a proud papa. "Isn't she gorgeous?"

"No," said Hooker, for it was not. "Will it work?"

"We'll sue if it doesn't. But we can't test it here. We'll have to ship it to the Moon."

"And then?" Doug felt adrenalin flooding his veins. All the decisions had been made two years ago; yet here was the tangible result, four stories tall, a decision on the verge of proving itself. And an ancient dream.

The safe ramscoop.

For centuries the ramrobots had been exploring space at just less than the speed of light, fueled by hydrogen scooped from between stars in conical electromagnetic fields two hundred miles across. For centuries men had followed at a quarter of the speed of light, carrying their own fuel. A ramscoop's magnetic field would kill any chordate organism within three hundred miles. No shield had ever been developed which would protect a chordate and still let the ramscoop work.

Until two years ago, when Moscow Motors had built - this.

There was a "dead pocket," a bubble in this generator's ramscoop field. A ship could be built into that bubble, and that ship would go anywhere, with a limitless fuel supply.

Two years ago Skyhook Enterprises had bought the contract to build that ship. It was a UN project, with all the wealth of Earth behind it. Doug Hooker's father was still president when that decision was made; only a year ago he had turned the company over to Doug and gone off to become a Belter. For a year the ramship had been Doug's responsibility. He had given Greg Loeffler a free rein, not for the sake of a friendship fifteen years old, but because Greg was a genius at design.

"And then we fit the ramscoop to the ship and take her for a trip. The ship's been ready for months.. That's what I was doing in

April and May, Doug. On the Moon, examining the ship. It's ready. All you have to do is get the rarnscoop there."

Doug nodded. For a moment he almost envied Greg. The ship was Skyhook's project, Doug Hooker's project, but it was Greg's ship. Top to bottom. If it was successful, it would conquer all of nearby space.

He said, "How's Joanna?"

Loeffler grinned proudly. "Out to here, and beautiful. Another month and she can go back to playing tennis. How's Clarisse?"

"Fine, fine."

"We haven't gotten together in a while. How about dinner tonight? To celebrate the rarnscoop."

"Good. Where?"

"Our place. You haven't seen our new house."

"That's true," Hooker said vaguely. He was not at his best in a social situation. He was uncomfortable in crowds and with people he didn't know. With Greg and Joanna he could relax; but not during work hours, not even with them.

"Doug?"

"Yah?"

"You and Clarisse were married long before I was. Why haven't you had children yet? Waiting for Joanna and me to pioneer the field?"

Hooker was tempted to say, *Yah, why not let you take the risks first?* But then he'd be asked again. So he told the truth. "The Fertility Board turned me down."

"Oh?" Loeffier wasn't about to ask why, but he'd left the door open if Hooker wanted a sympathetic ear.

"Guess I'd better get back to work," said Doug. "Will you be going to the Moon to supervise the tests?"

"If Skyhook pays the fare."

"Slip me a requisition. And we'll see you tonight."

**AUGUST AD. 2557**

**THE ROCKIES**

They lay in full sunlight beside the pool under Greg's weather dome. All three were wet with water running off their bodies to form pools around them on the red tiles. The woman, Joanna, was a tall,

solidly built brunette with lovely legs. Of the men, Doug Hooker was still too thin for his height and not well muscled; whereas Greg Loeffler had gymnasium muscles and a loafer's tan. They lay exhausted after the race across the pool.

Outside it would be cold, though not yet freezing. In winter snow would surround the house and run melting from the weather dome. Greg's house was high in the Rockies, halfway up a cliff. By its design it seemed to have grown as an organic part of the cliff. A good part of it was inside the rock

Idly with wistfulness but no pain Doug thought Clansse into existence alongside him Golden hair and stiff complex hairdo, deep all-over tan, she would have fallen asleep by now in the sunlight burning through the transparent weather dome. He hadn't seen her in ten years. She had remarried right after the divorce. Two years later she had been twice a mother.

Wistfulness, but no pain. She'd got no alimony, but she'd tried, and that had canceled the pain of losing her. Her ghost-image died, and Doug turned over on his back.

"We'll be leaving in a month," said Joanna. There was a touch of regret in her voice.

"You're out of your minds," said Doug.

Greg got up on an elbow. "Not at all. The future isn't on Earth any more, Doug - "

"Where is it, on Plateau? Any other world, I'd still say you were crazy. But teeny little Plateau? In five generations it'll be as crowded as Earth!"

"Then you admit Earth's crowded."

"Well, yah, but that's the price you pay for civilization."

"I won't pay. I'm leaving." Greg was enjoying himself. He had rehearsed the argument over and over in past months. "By the time Plateau gets really crowded, there'll be so many colony planets that anyone can take his pick. Meanwhile, Plateau is a nice place to be. You've seen the pictures."

"Suppose they're hoked?"

"They aren't."

"And why risk it anyway? A dozen light-years in a four-man ship! Suppose a meteor - "



"Suppose a goblin? For Pete's sake, Doug! I designed these ships myself. They're foolproof."

Doug turned on his belly, scowling. Even he didn't know why he kept fighting a lost cause. Greg was going, and Joanna was going; their oldest daughter, Marcia, was going, with her husband. The only reason Greg kept up his side of the argument was the hope that Doug would change his mind and come along, which Doug would not.

But the thought of Greg and Joanna leaving filled him with nameless dread.

"Is the ship ready yet?"

"Yes. Since yesterday. We could leave any time."

"Not until I inspect it," said Doug. "You promised."

"So I did. How about tomorrow? I'll give you the key."

"Good."

Skyhook Enterprises had built that ship. By now hundreds like it were scattered across the sky, anywhere within fifteen light-years of the solar system. Which meant that Earth's information was up to fifteen years out of date; but as far as anyone knew, no Skyhook ramship had ever failed. Skyhook was now designing a bigger ramship, big enough to carry a thousand colonists in stasis. But the four-man Skyhook exploring-model was the only ramship now flying.

It came in three parts, easy to connect or to disconnect for inspection. Ramscoop, lifesystem, drive. And boosters, but boosters didn't count. They didn't count because they had been used for centuries. Rockets they were, containing helium compressed to within an inch of its life. Autopilots would guide them down after they had lifted Greg's ship to where he could safely use the fusion motor. Hooker ignored them, as he would have ignored a bicycle in the cargo hold. Too simple, too foolproof.

He ignored the ramscoop because he wouldn't have understood it. He ignored the fusion drive for both reasons. If there was a flaw in either of them, he would not find it.

His only chance was in the lifesystem.

It was big and roomy, that lifesystem, even for four people. Most flatlanders did not have that much room in their homes. But a claustrophobic ramship passenger could not step outside for a breath

of air. The lifesystem was a cylinder with the central core running through it, the central core that joined the ramscoop to the fusion drive. Somewhere in the control panel were emergency switches which would blow the core apart to release the lifesystem as a separate unit, to fall through space awaiting an unlikely rescue.

There were two master bedrooms, soundproofed, with locks - very private. There was a gymnasium with musclestretchers for use in ship's gravity or in free fall, with sunlight tubes and masseur couches and a steam bath. There was a small dining room with the kitchen controls set in one wall.

Hooker walked the ship as if he were afraid of it. He was. He still wasn't sure why.

There was the autodoc, the most complex ever built. It would replace its own biochemicals, its own plastiskin, its own artificially grown organ-replacements; all this automatically, using materials culled from the ship's waste collectors. It could cure anything. In theory it could keep a man young and healthy indefinitely. Skyhook Enterprises had not built this beauty. Moscow Motors, that industrial giant subsidized by the substate USSR, had taken that contract as part of the deal that won Skyhook the ship contract.

Hooker knew autodocs. He inspected the coffin and the machinery that fed it, and found no flaw.

He went through the kitchen, as much of it as he understood. This too turned waste into food. The processes were infernally complicated; but any chemical procem can be reversed, given sufficient sophistication and sufficient power. The ship's power came straight from a fusion drive with unlimited fuel.

The air plant was the simplest part of the ship. Hooker didn't even look at it. By the time he got around to it, he was bone tired. He flopped on one of the beds and stared at the softly glowing ceiling.

As far as he could tell, there was nothing wrong with the ship. Nothing. What was the point in looking? Any flaw Douglas Hooker, the executive, could recognize could probably be fixed in five minutes.

They were going; they were practically on their way now. Greg and Joanna and Marcia and -he'd forgotten the name of Marcia's husband. But why should he try to stop them? He had plenty of other friends. Didn't he?

He had conjured up eleven names and was frying hard for a twelfth when it occurred to him that all eleven were people he had met through Greg and Joanna. All but two, and he hadn't seen them since Clarissa flew to Vegas, leaving him a wedding cake on which the wax bride and bridegroom stood facing outward on opposite sides of the bottom layer. Nine people, then, whom he saw only at Joanna's parties and "talk nights."

He had never made friends easily. Strangers made him uncomfortable. He kept wondering what they thought of him.

Even friends. There was a barrier between him and everyone else, and the barrier was a secret. As far as he knew, only two other people on Earth knew that Hooker was a potential paranoid. There had been three; but his father had gone to the Belt to start life over, probably thinking that the more lenient Belt fertility laws would permit him to have a second child after seven years had made him a citizen. He had lasted two years. He had smoked, and his dashboard included an ash tray. One day, during the last seconds of a landing approach to some unnamed rock, he had somehow used the attitude jets in such a way as to spill ashes out of the tray and into his eyes. The rock had smashed his sight bubble and his faceplate. And now there were two people who knew Doug's secret, but both were doctors. Clarissa had not known. She would have talked,

His secret stopped his mouth and slowed his conversation and made it innocuous. It kept him from getting drunk, for he feared his tongue would loosen. No man knows his fellow until he has seen him drunk; and no man had seen Doug Hooker drunk.

He tried to face it squarely. Doug and Joanna were taking his social life with them to Plateau.

Why not regard it as a challenge?

Hooker rolled off the bed and left the ship. He would tell the Loeffiers that it was perfect, foolproof. When they were gone, he would make new friends, create his own social world. He had wrapped himself around his work for far too long.

But he was sixty-one years old, and his habits were developed.

AUGUST, AD. 2570

KANSAS CITY

It happened thus:

Every six months a man came to service Douglas Hooker's desk doc. Paul Jurgenson was his name. He had been servicing docs for most of his life; docs of all kinds, from the huge multiple-patient emergency docs at aerospaceports to the desk-sized docs installed in planes and short-hop spacecraft and used by executives the world over. The work never bored him, for Jurgenson was not overly bright; but he was good at his job.

He came on a Thursday, the last day of the working week, and the last Thursday of August. As usual, Doug Hooker went home at noon to give him room to work. Jurgenson took the doc apart and began to examine the parts. He shook his head sadly when he found both of the two special-mix phials *that* close to empty. Hooker didn't know it, but Jurgenson was the third man on Earth who knew his secret. He had guessed it, of course, but the guess was a certainty. You can't hide baldness from your barber.

Jurgenson filled the phials, still saddened. Mr. Hooker always sent him a twenty-five-mark bill for a Christmas present. (A firm handled Christmas presents of that nature for Hooker, remembering for him, but Jurgenson didn't know that.) Now it seemed that Mr. Hooker was using more antiparanoia than ever. That meant trouble in his life. Jurgenson knew that from long experience. He wished he could do something.

He replaced the hypo needles, as usual, the phials of pure alcohol, the vitamin ampoules, and the testosterone. He checked various circuits and replaced two wires; not that they were really ready to fail, but you never know. The manicure implements were self-replacing. Jurgenson frowned at the doc for a moment, listening to an instinct he trusted. It must have been right, for he closed the doc and unscrewed the red and green bulbs to look at the dates on their bases.

They were ten years old. In those days men built to last. There were laws. But ten years was old enough, even for bulbs which might last thirty. Jurgenson dropped them in the waste chute and replaced them from his kit. He tripped appropriate relays and saw that both bulbs lit.

He left, waving to Mr. Hooker's personal secretary. They had known each other for close to half a century and never done more than say hello and good-bye to each other. Miss Peterson was a beauty. But Jurgenson thought his wife was too good for him, and had long feared she would find out. He never philandered.

**DECEMBER. AD. 2570**

Hooker entered the outer office. "Hi, fans," he said, as he had said each working day for... he didn't know how long. The answer, from several people at once, was a jumbled chorus. Hooker entered his own office at just ten o'clock.

The In basket was full. Hooker frowned at it as he shoved his hands into the doc. Was he making a mistake, cutting down on Skyhook's commitments? It made paperwork simpler and thus saved money. But ... sometimes Hooker felt that Skyhook was stagnating.

Other than the colony-model ramships, a few of which were now in use for the UN, Skyhook had not pioneered anything in nearly twenty years.

The Loeffiers must be on Plateau by now. Had they sent him a laser message? If so, it would not get here for twelve years.

What was wrong with the 'doc'? It should have released him by now.

Doug withdrew his hands. There was no resistance; no fluids dripped from his fingers; his nails shone. Oh, nuts, he said subvocally. The green light's burned out. He made a mental note to call Jurgenson.

But he never did. It had never happened before; there were no habits to help him. And Jurgenson would be here in February. Hooker simply got used to the absence of a green light. He knew to within seconds when the doc was through with him.

It was the red light that had failed. The red bulb's filament had been dead for months. It had snapped and died when Jurgenson clicked it off.

**FEBRUARY. AD. 2571**

The change came slowly. At first Doug noticed nothing. Then, as weeks passed, it seemed to him that his thinking was becoming clearer. He didn't know why, but he was becoming more intelligent. These things that troubled him - they had one linking cause. Of course they must. All he had to do was find it.

His employees came at ten and went home at four, usually with Doug Hooker striding with them toward the parking lot, trying to look anonymous, returning goodbyes if they were given. On Thursday, the first of February, Hooker did not leave. He nodded when his personal secretary told him it was after hours; he smiled emptily at her when she said good night. And then he sat.

The world did not intrude. The office was soundproof; its light did not depend on the sun; its false windows looked upon alien worlds, and on each a Skyhook ramship was landing. Impressive, for visitors. So Hooker could ignore the passage of time.

He thought of things that had gone wrong with his life.

He had no friends.

He had no hobbies. He'd thought of taking one up, but it turned out that he hated games. Losing irritated him. He always lost interest before he could become good enough to win.

His life was his work and the Palace. The Palace was a house of ill repute with a reputation for being very good and very expensive. If only Hooker had had the ability to play... but that he had never had. He went to the Palace when his gonads told him to, and he left when they quieted. Most of the girls could not have told you his name.

His work was all habit. He slid through life as in a dream, and the dream was a dull one of easy defeat. For a long time it had been that way. It had started...

When Clarisse left him? His teeth bared in savagery. If she were the cause, he would track her down wherever she hid! And the children for whom she had deserted him. ... . No. He could remember periods of enjoyment, brief flashes of sunlight in his life, and some of them had happened since Clarisse.

That Christmas party at the office, decades ago. Someone's idea had sparked them all, and they had stayed until three in the

morning, using plant facilities to build a robot. The body had been built of emergency foam-plastic from the failsafe systems in a ramship. It couldn't have weighed more than twenty pounds, excluding another twenty pounds of motors, but it had stood twenty feet tall, blank-visaged and horrifying, with huge flat feet. Yes, it had been Greg: his idea, and mostly his suggestions. They had turned it loose on 217th pedwalk downtown, walking east in the westbound lane, so that it stood in one place, marking time. Skyhook employees had waited four hours for the seven o'clock rush hour, in an automated restaurant above the walk. The panic had been a beautiful thing.

Loeffier?

Sure, Loeffier! He'd waited until Doug's dependence on him was complete. Then he had left. So diabolically simple. Doug had not had a moment of real enjoyment since.

Hooker's lips pulled back and away from his teeth. His nostrils flared and turned white. So simple! Why hadn't he seen it before? Since high school it had always been Loeffier, blocking every chance he'd ever had to make his own friends and his own way of life. A decades-old plot that had not come to fruition until Doug was sixty-one years old. Now, now that he was finally alert, Doug could see the bones of the plan. The ramship had been part of it; it made the business so rich and so complex that it took all of Doug's time to handle it. A very neat trap. Had Clarisse been involved? Perhaps. There was no way to tell. But. . . Greg had introduced him to Clarisse, hadn't he?

Doug settled back in his chair. His face became almost calm. Clarisse, wherever she was, did not count. She had been a pawn, but Greg Loeffier was the king. Greg Loeffier must die.

It was midnight before Doug decided what to do. His secretary was long gone, which puzzled him until he realized what time it was. But he could do the work himself. He knew how to handle a tape. He dictated an application to buy "one ramship at standard prices. Purpose: to leave Earth. (No point in saying where he intended to go. Loeffier might have left spies anywhere.) He put the tape in an envelope and dropped it in a mailbox on his way home.

Greg had had his answer in three days. By Monday, Doug would own a Skyhook ship. And then...

"Hi, fans," Doug Hooker called as he entered the outer office. Ranks of secretaries returned the greeting. They noticed nothing odd about him. He always walked that way, eyes straight ahead, walk fast and slightly hurried, rebuffing friendship before it was offered.

He entered his office, put his hands in the doc, waited for an estimated two minutes, withdrew them. Have to call Jurgenson, he thought, and then sneered at the triviality of the thought. He had better things to do. Where was that UN envelope?

There. He opened it, took out the credit-card-sized tape and inserted it in his desk player.

The refusal jarred him to his bones. He played it again, refusing to accept it - and again. It was true. He'd been turned down.

The implications were terrifying. Doug had had three days to think things over. With every hour the nature of Loeffier's plot had become clearer ... and had involved more people. Loeffier must have had an enormous amount of help.

But Doug had never dreamed that the UN was part of the plot!

He'd have to be very careful. He might have given himself away already.

**FEBRUARY, A.D. 2571    EAST NEW YORK**

Somebody had stolen a Skyhook ramship.

The call came shortly after noon from a lovely, frightened woman who said she was the president's personal secretary. "It was Mr. Hooker's ship," she explained. "He was thinking of designing an improved model. He ordered a complete working-model of the ship they're using now. This morning it was gone!"

Loughery asked, "Did the model have gas boosters?" He was thinking, *Of course it had boosters. it couldn't take off without them, not without fusing Kansas City. But maybe a truck hauled it away?*

"Yes, it had boosters."

"Why?"

"Mr. Hooker wanted it complete in every detail."

"Oh, Lord." Loughery rubbed the back of his head. *The idiot! Wanted a complete model, did he?* Now there was a fusion ship loose



somewhere in the solar system. Cut a few safety relays, turn off the fusion shield, and any fusion ship becomes an exploding fusion-bomb. "We'll send someone over right away. Is Mr. Hooker there?"

"He didn't arrive this morning."

"Well, give me his home address. And if he shows up, have him call here immediately."

The pieces began to fall together.

First, Skyhook. The area was well guarded; it would have been difficult for anyone to get in without being spotted. There was no human guard, but any unauthorized entry would have been photographed a dozen times. There would have been alarms.

Second, the Belt called. Several million people owned most of the solar system and a political power equal to that of the UN. They were furious. A fusion ship had left Earth without proper notification and was now boring through space toward the system's edge, paying no attention to laser calls. Loughery promised payment of daniages. It was all he could do.

Nobody found Hooker. If he was at home, he wasn't answering phone calls.

The gas boosters found their way home. Loughery's men took charge of them immediately, inspecting them for clues. Reentry had not burned the fingerprints off their shiny surfaces. The fingerprints were Hooker's - some of them.

Loughery filed a request for a warrant to search Hooker's house. It began to look as if Hooker had stolen his own ship.

On the afternoon of the twenty-seventh, somebody found Hooker's request to buy a ramship. It had been turned down for several good reasons. For one, Hooker had named neither destination nor purpose. For another, the UN was careful about passing fusion drives out to anyone who might ask; whereas Hooker--

Loughery felt the hair stir on the back of his neck, Hooker was a potential paranoid.

Jurgenson called that evening. By then Loughery was in Kansas City. He went right over to interview Jurgenson personally.

"He was using too much of this guck," said Jurgenson. He indicated two phials, both bone dry. "That's bad. I got other people who use stuff like this, people who need special guck or something

goes wrong in their heads. When they got troubles, they use more guck than usual."

"But there's a warning light."

Jurgenson wrung his hands. "It's my fault. I put in a bad light. It worked when I tried it. I can't understand why it went bad."

"Who was Hooker's doctor?"

"Human? I don't know. Miss Peterson might."

Loughery asked Miss Peterson.

By then the search warrant had come through. What privacy there was on a crowded Earth was highly regarded; search warrants were not passed around like advertising posters. Hooker's home turned out to be the top of a skyscraper in downtown Kansas City.

Hooker had left a note, a long one. It said that since Hooker had no friends and no particular purpose in life, he had decided to spend the rest of his life on a project all his own. He was going to try to reach the edge of the universe. He did not expect to succeed. The ramship would keep him alive indefinitely, but indefinitely was not forever. Yet he intended to try.

It was a sanely spoken tape. Syntax was in order; Hooker's voice seemed calm. Hooker's expressed purpose was the only crazy thing about it. But Hooker was guaranteed crazy, wasn't he?

Loughery called the Belt again. Hooker's ship was well out of the inner system, far enough so that the Belt could stop monitoring him; there was little chance of his deadly drive-flame crossing anyone's path before it dissipated. Yes, he was headed roughly toward the galactic rim.

It checked, thought Loughery. Hooker would have been better advised to head straight out along the galactic axis; there was less junk to get in his way. But perhaps he hadn't thought of that.

The excitement began to settle. Loughery had other problems. But there was one last thing he could do about the Hooker problem, and eventually he thought of it.

"Keep a monitor on Hooker," he told the Belt Political Section. "We'll pay the standard fee. We want to know if he turns back or if he changes course toward some inhabited world."

And that would do it, he thought. Eventually Hooker would use the ship's doc. That simple. It would cure him. Then he would

either turn back to Earth, to face a charge of stealing a fusion motor, or he would move on to one of the colonies. Probably the latter. Stealing a fusion motor was a capital crime on Earth. But they could deal with him, offer him amnesty for the return of the ship.

Three weeks later the word came. The actinic spark that was Hooker's drive had definitely shifted toward Tau Ceti. Loughery had to admit that Plateau was a good choice.

Plateau had suffered badly from the organ-bank problem in the two centuries before alloplasty, the science of putting foreign materials in the human body, had overtaken the techniques of organic transplant. All the inhabited worlds had gone through that stage. Its worst feature was that there was only one way to get the most important organic transplants.

On Plateau a small ruling class had held the power of life and death over its citizens. Life, because with unlimited access to the organ banks one could live centuries. Death, because any crime could be made a capital crime whenever the organ banks ran short. The citizens would not complain. They wanted to live centuries.

Then alloplasty had caught up. Now there were no organ banks at all on Plateau and no capital punishment.

Loughery sent a laser to Plateau, warning them that a stolen ship was due to land there. He wasn't sure which would get there first, the laser or the ship. Ramships were fast.

#### **MARCH, A.D. 2571, SHIP'S TIME**

The ship flew itself, of course. All Doug had to do was take it below the plane of the Belt, leave it alone for a couple of weeks, then aim for Tau Ceti. The two weeks were misdirection. With the note he had left, they might convince the police that he was going off to nowhere and would never bother them again.

He kept busy watching for goldskin ships, Belt police; reading instruction booklets over and over; getting familiar with his machines. It wasn't until he had passed Pluto's orbit that he began to relax.

Nobody was after him as far as he could tell. Not that they could have done anything; you can't stop a ship in space. You can only destroy it. But he was reassured. He had broken free of his long

bondage. And now . . . the long wait. Tau Ceti was eleven point nine light-years away. It would take less subjective time than that with the velocities he would eventually reach, but still.. .

He frowned. He hadn't been in a doc in some time. It would be stupid to get sick and die just when vengeance was within his grasp.

He climbed into the doc tank and went to sleep.

The doc found it necessary to make drastic changes in his metabolism. Hooker felt very strange when he woke. The strangeness seemed to be in his thinking, and that made it horrible. He felt slow, stupid. He could no longer remember why he wanted to kill Greg. He remembered only that his lifelong friend had done him a great wrong.

He thought of turning back. But he couldn't do that; he'd end in the organ banks for stealing this ship.

Should he try another colony world? It was a confusing question. His mind was full of confusing questions. But it was obvious that Mount Lookitthat was his best bet, regardless of what happened when he got there. Plateau was the only world of Man that did not impose the death penalty. If they decided he'd committed a crime, he'd get medical treatment.

His head buzzed. Perhaps he needed medical treatment. But the ship's doc could do anything.

He went on.

And as the weeks passed, a strange thing happened. He remembered his grudge against Greg Loeffler, and he realized something that sent cold chills of rage through him. They'd booby-trapped the doc!

No, it was worse than that. Somehow, long ago, Greg Loeffier and his minions had managed to booby-trap every doc on Earth. For all of his life Hooker had been using the docs. And each time he did, the docs had made alterations in his mind and body to keep him docile.

What could he do? His very life depended on the doc!

It took him a few days to get over his sense of panic, or perhaps he merely got used to it. Then he went to work. There was a thick instruction booklet for repairing the doc. Hooker memorized it. When he felt he was ready, he began to disconnect things. It was difficult to decide what to cut out. Finally he tackled it from the other

direction: what to leave running. Anesthetics, of course, and the luxuries: manicures, haircuts, massage. Vitamins, antibiotics, all diagnostic machinery, surgical repair - except in the region of the head. He didn't dare leave that! Anticholesterol, synthetic blood components, alloplasty components and insertion tools

He finished in two months. The doc should be incapable of anything that could damage his mind. But still he was afraid of it.

He tried it anyway. He was insane, definitely, but not stupid.

When he woke up, he knew that the doc was safe.

### 2583.8 PLATEAU

Plateau was a silver ball hanging serene in the heavens. Hooker stopped nearby, not too near, and not in any particular orbit. He began to scan the surface.

Where was Mount Lookitthat?

He couldn't find it. He turned ship to circle the planet, an irritating delay for an impatient man. Then he thought of turning on his radio. He'd turned it off because Plateau's voices of authority kept trying to tell him what to do. Now he could use their directional signal.

--calling Douglas Hooker. Douglas Hooker, will you please answer? Do you need help? The United Nations claims you are flying a stolen ship. Is this true? You will need reentry craft to land. Are you able to establish an orbit so that they can find you? Douglas Hook--"

Hooker frowned down at the silver field in his scope screen. That was where Mount Lookitthat ought to be, according to his directional finder. So where was it?

Overcast, of course. By water vapor. There must be fog there or rain.

Hooker smiled and moved in.

He dropped fast into the mist beyond the void edge. If there were finders on him, he was caught; but what could they do about him? They couldn't approach him with anything manned. His ramscoop field was as deadly as earlier models, save for that "dead pocket." All he had to do was turn it on.

He heard nothing on the radio. They weren't sending in his direction. Good. And he was somewhere off the void edge of Mount Lookitthat.

He'd passed through Loeffler's laser message just about a year ago, ship's time. It was mealymouthed friendliness, all of it, obviously designed to lull Hooker's suspicions. All the same, it was a bad mistake on Loeffler's part. It included pictures of his house and environs.

Loeffler's house resembled his old home on Earth. It was large, almost ostentatiously large; and it seemed designed to fit its surroundings, as if it had grown from the land. Loeffler no longer lived on a cliff. He had chosen a spot in hilly country, set a few hundred feet back from the void edge in one direction and from a river in another. The river had etched itself a canyon over the millennia, and that canyon led to the void edge.

Hooker kept his ship submerged in the mist. His drive must be giving off a hellish glow, but he hoped he was far enough down for the mist to hide it. He angled his ship toward the invisible Mount Lookitthat and moved slowly in that direction. Look for a waterfall.

It might not show at this level. It might turn to spray and evaporate high above.

Something black and formless loomed in the lesser blackness. Simultaneously, Hooker's radar beeped. Something black and huge, indefinitely huge... Hooker backed ship and raised the thrust. The ship shot up. Up and up. The mist began to thin ... and Hooker had his first look at the side of Mount Lookitthat. It seemed infinite. It went on and on, up and down and sideways, like the surface of a world tilted from horizontal to vertical.

(After four hours of hopeless searching, the pilot of Plateau's first colony slowboat had seen Mount Lookitthat rising suddenly out of an endless white furry plain. "Lookitthat!" he'd said, four hundred years ago, in the voice of one punched in the stomach.)

Hooker took his ship straight up the fluted side. Mist boiled and churned below him. Now he got his first look at Plateau's big soft sun. Tau Ceti was smaller and cooler than Sol, so that Plateau had to huddle closer for warmth, making the star look bigger from Plateau's surface. But Hooker had been traveling for more than four years of ship's time. He'd all but forgotten what a sun looked like.

Above and to the left, a waterfall. He angled that way.

The ship shot past the void edge. Suddenly most of Plateau was below him. Doug cut his thrust and looked around.

He snarled. He'd picked the wrong waterfall.

There were no spacecraft; but he could see cars all across the land, all colors, most of them staying near the ground. There were houses, and all were large. Loeffler's house must be about average in size. *Sure*, Hooker rebuked himself. *They've got more room. Did he plan that too? Hiding from me!*

*Could that be it?*

Hooker dropped. It was a great rounded house, like an enormous boulder with picture windows built into it. There was a river ... and it was close to the void edge

That was it. But was Loeffler there?

It didn't matter. Hooker back-angled his ship and came to a stop over the house. His drive licked down. The house erupted in flame.

Hooker laughed. He shouted, "You won't use *that* as a hiding place! Are you dead, Greg? If you're not, I'll find you wherever you hide!" Still laughing, he increased thrust and rose into the sky. Below him was a boiling lava pit.

He needed a city. A city would have records. He could search them to find where Loeffler was now.

But he'd have to be careful. Loeffler had taken over Earth. Hooker didn't know how long it had taken him, but he'd been on Plateau more than twelve years; he must have made some progress here.

Hooker's radio sounded.

It was a sound Hooker had never heard before. It was very loud and very terrible. Hooker reached to turn off the radio. His arms stopped halfway. He couldn't move. them. He settled back in his seat. A strange, peaceful expression spread across his face. Presently a voice began to give orders, and Hooker obeyed.

"Lucky he had his radio on."

The second man nodded. "He could have wiped out this whole world. I *hate* these fusion drives. Land him, will you? I'll call the Hospital."

"Whose house was that?"

"I don't know. Let's hope nobody was in it. Will you please get him down? If it wears off, he'll turn off the radio; and then where will we be?"

#### 2584.4 HOSPITAL PLATEAU

They quit work at five o'clock. Hooker was exhausted. The chain gang had been planting trees where a generation of special mold had made sufficient soil to support them. Machines did some of the work, but mainly the chain gang used their hands.

Planting trees gave Hooker a feeling of accomplishment. Even as president of Skyhook he had never felt so useful.

He was bone tired until dinner arrived, and then he was ravenous. By the time he finished dinner, he was no longer tired. He went to his room and read until eight o'clock.

Psychotherapy was at eight.

"What I've been thinking about . . ." he told the doctor. "I want to know if I killed anyone."

"Why?"

Words formed a bottleneck in Hooker's throat. It had stopped him before during other psychotherapy sessions. He never knew how to answer that particular question. This time he forced Out some kind of an answer.

"I want to know how guilty I am!"

"You know what you were trying to do. Whatever you did is done. How will feeling guilty help anything?"

"I don't *know*. But if I'm not supposed to feel guilty, why am I in prison? And don't tell me it's a hospital. I know it's a hospital. It's also a prison."

"Of course it is."

He'd killed four people. He'd killed Joanna Loeffler and her daughter and son-in-law and grandson. Greg Loeffler had been elsewhere. They waited a year to tell Hooker.



## 2565.1 BETWEEN STARS

"Doug!"

Hooker jumped.

The radio yelled, "Doug, this is Greg. Answer me!"

Hooker hesitated only a moment. This was what he had dreaded. Loeffler must have a com laser on him with a directional signal in it. Hooker told the autopilot to follow it back.

The radio didn't wait. "Answer me, damn you! You know what I want!"

What was with Greg? How could he possibly expect Hooker to answer immediately? It would take hours for Hooker's com laser to cross the gap to Plateau. Hooker shifted nervously. The autopilot beeped, and he said, "I'm here, Greg. I didn't want to talk to you. I left Plateau because I couldn't face you. You must know how sorry I am for what happened."

Greg's voice didn't wait. "Doug! Why don't you answer? Is it because you think I'm going to kill you?"

Hooker came bolt upright in his chair. *Oh!*

Suddenly it was appallingly clear. Loeffler, shouting into a com laser, forgetting the lightspeed gap, was not a sane Loeffler.

Tau Ceti was a white flare in the stern scope. Wunderland's sun was too dim to see from here. Hooker turned on his ramscoop field: a complex process, most of which would be handled by the autopilot. Then he got up and began to pace.

"You cowardly, murdering ..." Loeffler's speech turned profane. His accusations, justified at first, became wildly imaginative. Hooker listened, trying to gauge the depth of Greg's insanity. It was one more item on his burden of guilt.

Why didn't somebody stop him? A com laser was too powerful not to leak. Plateau radios must be picking this up.

And where had he gotten a com laser? The Plateau station was closed to all but qualified personnel. But Greg owned a ship with a com laser...

A ship just like this one.

Almost calmly, Hooker sat down at the control board. He connected the autopilot screen to the stern scope. Tau Ceti glowed

brightly off center. Hooker centered it, then began to enlarge it. The screen turned yellowish-white, with a blue point moving off screen near the top. Hooker centered that, enlarged it.

A deep-blue flare with a black dot in the center.

Loeffler was coming after him.

Loeffler's hoarse voice stopped suddenly. Then, it giggled. "Tricked you," it said, suddenly calm.

The stern scope turned deep red.

*Damn*, thought Hooker. *He did trick me*. The scope screen would not transmit more light than human eyes could bear, but there was a dial to register the light falling on the scope. That dial registered maximum. Loeffler was using his com laser as a weapon. At maximum power it could easily have blanketed Earth's solar system with a clearly read signal, but Loeffler was firing it at an object only light-hours distant.

*He could kill me*, Hooker thought. *He could do it*.

It wouldn't be fast. Loeffler was firing from behind at that part of Hooker's ship which was built to stand fusion flame applied for years. But eventually things would melt.

Greg was jubilant. "I'm going to burn you, Doug! Just like you burned Joanna and Marcia and Torn and little Greg! But slower! Slower, you. . ." And there was more profanity.

Needles were rising. Hull-temperature indicators, power-consumption meters, climbed toward pink zones nobody had ever expected them to touch.

Doug Hooker rubbed his eyes. He waited for an inspiration, and none came. Needles touched their pink zones. Bells rang, and Doug turned them off. After a bit he left the control room and went downstairs and lay down on the masseur couch.

*He's going to kill me*. The thought seemed far away, drowned in the groaning comfort of the massage.

*All I wanted was a new life. I wanted to go away and start over*. The couch was a hard, enveloping caress.

*He won't let me. He wants to kill me. And who has a better right?*

*Let him kill me.*

*No.*

It was difficult to struggle out of the couch, for the couch was not finished with him. During a massage one must be in a defeatist frame of mind. Otherwise one tenses; one's automatic defenses take over. But somehow Doug pulled himself free of the gentle, grasping embrace, and somehow he got upstairs to the control room. He was still covered with massage oil.

*A man attacked has the right to defend himself. I paid for my crime.*

Doug sat down in the control chair, used a key to unlock a panel. There were override switches underneath. One turned off the ship's alarm bells; one allowed excess power in the ship's circuitry; three others set up the sequence that would blow the ship apart if the drive or the ramscoop failed. Everything under the panel was an override switch for the ship's automatic safety precautions. Doug flipped one switch and closed the panel. Then he twisted a dial hard over, as far as it would go.

His com laser was already fixed on Loeffler's ship. Now it would burn.

Hooker turned off his fusion drive to reduce the heat pouring in at the ship's stern. Now he had a good chance. He was firing his laser at Loeffler's nose, where there was less protection. The massive, almost invulnerable bulk of the ramscoop would absorb most of the beam; but the lifesystem was wider than the ramscoop, and it would catch a lot of light. Eventually its walls would melt.

Hooker would kill Loeffler before Loeffler could kill Hooker.

Doug went back to the masseur couch. He felt very tired.

The lifesystem became hot - unbearably hot. When Doug felt he could stand it no longer, he went upstairs to throw another override switch. When he had done that, the cooling equipment would get more power, and his lifesystem would be cool until relays or busbars burned out.

At the control panel he found that it wasn't necessary. The ruby glow was gone from the rear scope screen. Loeffler's laser had burned out or lost its target.

Loeffler's ship was still there, still following. Hooker started his drive and turned off his laser. He was on his way to Wunderland, with Loeffler following.

## 2589.0 SHIPS TIME

Turnover. Loeffler was still behind him. Hooker had long been convinced that Loeffler's com laser was burned out. He had used his own com laser, but Loeffler never answered.

And now he used it again.

"Greg," he said, "you've been following me for three and a half years. I assume that you want justice on Wunderland. You're entitled to state your case there. But now it's turnover time, in case you hadn't noticed, and I'm turning around. Please do the same."

He used the gyros to swing the ship.

He was as nearly sane as a doc could make him. In three and a half years he had almost forgotten about Loeffler or at least had learned to accept him as an endurable evil. And there was this: Loeffler had a doc. He must have used it. A doc would not keep a man sane under undue stress, but Hooker could at least hope that Loeffler would use the law instead of weapons. The law might punish Hooker, despite double jeopardy laws, but it would also protect him.

He fell tail first toward Wunderland.

Now a point of light showed in the front scope. Hooker watched for it to turn. It was small, that dot of light; for Loeffler had fallen far behind in the race toward Wunderland. Hooker's ramscoop was taking part of Loeffler's fuel, since Loeffler was in his shadow.

Hours after turnover the point of light moved. Loeffler had gotten his message ... or seen him turn. The point of light became a line of light, then swung back to a point.

It still had a dot in the center.

"No," said Hooker.

A black dot in the center of a blob which showed mostly blue.

"No. You're going the wrong way. Turn around, you idiot!"

The ships were diving nose-on at each other.

Hurriedly Hooker swung his ship around. *I should have known*, he told himself. *Loeffler wants to ram. When I accelerate to the side, so does he, because otherwise, I might get around him. But he won't let me slow down.*

*If I get within three hundred miles of his ramscoop...*

It was a stalemate. Loeffler couldn't catch Hooker, and Hooker couldn't escape Loeffler. But only Loeffler had the power to give up the game.

## 2590.0

Loughery came to Plateau in a colonist ramship. It was a common practice in those days for Earth to finance one-way trips to the colony worlds simply to get people off the planet. On his sixtieth birthday Loughery, having had enough of being a UN official, took the UN up on its offer.

He could have chosen any of the colony worlds. He chose Plateau because the social structure fascinated him. When he had learned enough, he intended to become a lawyer.

"That won't be easy," the mountaineer cop told him. Loughery had stopped the guy as he was coming off duty and offered to buy him drinks and dinner in return for information. "The mountaineer laws aren't as difficult as Earth's, at least from what I hear, but you may have trouble understanding the ethics behind them."

"I gather a mountaineer is a Plateau dweller."

"Right. Like a crashlander comes from We Made It and a flatlander comes from Earth."

"About the ethics."

"Hmmm." The cop scratched the back of his head. "Tell you what. The records building is still open. Let's walk over and I'll find you a few examples."

He had to use three electronic keys to get to the files. Once inside, he looked around him, lips puckered judiciously. "I'll start you with an easy one," he said. And he pulled a tape out of a drawer filled with similar tapes. "Let's run this."

They played it.

"Hooker," said Loughery. "I remember him. Dammit, I'm the one who sent out the warning. I thought the 'doc had cured him. I'm as guilty as he is."

The cop looked very coldly at Loughery. "Could you have stopped him?"

"No. But I could have stressed the warning."

"As long as there was a warning. Now, do you understand the logic behind Hooker's sentence?"

"I'm afraid not. He got two years imprisonment for negligent homicide, with simultaneous psychotherapy and conditioning. Psychotherapy is a lost art on Earth, by the way. I don't question why he only got two years, but why negligent homicide?"

"There's the crux. He wasn't guilty of murder, was he?"

"I'd say Yes."

"But we say he was insane. That's a legitimate plea."

"Then why was he punished?"

"For letting himself become insane. He knew he was a potential paranoid; all he had to do was stay in reach of a working autdoc. And he didn't. Four people died. Negligent homicide."

Loughery nodded. His head was spinning.

"What isn't here on the tape is the follow-up. Loeffler tried to kill Hooker."

"Oh?"

"Hooker left in a ramship. Loeffler went after him. They had a big duel with com lasers. Now, let's suppose Hooker had won that battle and killed Loeffler. What then?"

"Self-defense."

"Not at all. Murder."

"But why?"

"Loeffler was insane. And he was insane as a direct result of Hooker's crime, not through Loeffler's own negligence. Hooker could run or hide or yell for help or talk Loeffler into accepting treatment. He could not strike back. If he'd killed Loeffler, he'd have gotten fifty years for murder."

"Maybe I should be a farmer. What did happen?"

"I wouldn't know. Neither of them ever came back to Plateau."

**120,000 APPROX.**

Fifty years?

The flap of a gnat's wing.

The long chase was nearing its end. At first Hooker had gained on his pursuer, for Loeffler's ramscoop was not getting as

much hydrogen as Hooker's. Loeffier's ship was in the shadow of Hooker's. At one time they had been light-years apart. But now Loeffier's ship was gaining, for Hooker's ship had reached terminal velocity.

There had to be a limit on the velocity of a fusion-powered ramship. It was this: when the exhaust velocity of the fusion drive was no greater than the velocity of the interstellar hydrogen hitting the ramscoop, the ship could go no faster. Hooker had reached that limit tens of thousands of years ago. And so had his pursuer.

But Loeffier's ship was using hydrogen that had slipped through Hooker's ramscoop. The hydrogen wasn't hitting Loeffler's ramscoop field as hard. It had absorbed velocity from Hooker's.

Loeffier was close behind.

The chase could end within decades.

Once upon a time Hooker had hoped Loeffier would give up and turn around. Surely he would realize that Hooker could not be caught! But the years had stretched to decades, and every year Loeffler waited meant four years trying to get back to Wunderland. He'd have had to decelerate before he could begin the long flight home, and deceleration would take as many decades as he had spent fleeing. So Hooker had spent two hours a day before the scope screen, watching the stars crawl past year by year, waiting for Loeffier to turn around.

The years had stretched into centuries, and still Hooker spent two hours a day watching the rear scope screen. Now there were no more stars ahead, but only the distant muddled dots of galaxies, and the stars behind were taking on a vagueness like curdled milk. And when the centuries had become millennia, Hooker no longer believed his enemy would let him go. But still he spent two hours per ship's day before the scope screen, watching the galaxy drop away.

He was totally a man of habits now. He had not had an original thought in centuries. The ship's clock governed his life in every detail, taking him to the autodoc or the kitchen or the gym. or the steam room or the bedroom or the bathroom. You'd have thought he was an ancient robot following a circular tape, no longer able to respond to outside stimuli.

He looked more like an aged robot than an aged man. From a distance he would have looked twenty. The doc had taken good care of him, but there were things the doc could not do. The oldest living man had been short of four hundred years old when that machine was made. Moscow Motors had had no way of knowing what a man would need when his life could be measured in tens of thousands of years. So the face was young; but the veneer was cracked, and the muscles no longer showed any kind of expression, and the habit patterns of the man were deeply grooved into the DNA memory processes of the brain.

By now the chase meant nothing to Hooker. In any case he should have been incapable of original thought.

They had come up along the galactic axis. Hooker, looking into the scope screen, saw the galaxy face-on. It was not bright, but it was wide. The galaxy showed like varicolored dyes poured into viscous ink, red dye and yellow and blue and green, but mostly red. Then the whole mass swirled around the center of the pot, so that the center glowed all colors—a continuous mass of stars packed so closely as to blot out the blackness behind, but it was not bright. There is dust even in intergalactic space. Nearly one hundred thousand light-years of dust shaded the galaxy from Hooker's view. The arms were almost black, the glowing areas spotted with black gaps and dust clouds. Everything was reddened and dimmed by Doppler shift.

He could not see Loeffler.

Habit used his fingers to magnify the view, slowly. The galaxy, already wide enough to fill the scope screen, expanded. In the core, individual, red giant stars appeared, bigger than anything in the arms. A blue-white spot appeared, and grew.

It grew until it filled the screen. There was a black dot in the center. And that grew too.

Hooker had watched for nearly an hour before the thought stirred in his brain. That hadn't happened for a long time, but it did happen. Hooker's memory capacity was nearly full, but his brain was in good working order, and he was guaranteed sane.

*I wonder how much damage I did.*

The thought threatened to skip away, but he grabbed for it, sensing somehow that it might be important. *I held my com laser on*



*him for hours. I may have damaged him. I've never seen him broadside; I'd have no way of knowing. But if his ship is badly hurt, I could finish the job with my laser, it never burned out. His did.*

He'd have to wait until Loeffler got closer. The thought slipped away ... and returned two days later. *I wonder how much damage I did?*

*How would I find out?*

Every day he remembered the problem. A month and a half after he had first thought of it, he thought of the answer.

He could turn the ship side-ways to fire the fusion drive laterally. Loeffler would imitate him to keep him from sneaking past and home. That would put Loeffler broadside to him.

He had done it once before, trying to make turnover for Wunderland. But Loeffler had been too far away for the scope to show details. If he did it now...

He did.

Then he focused one of the side scopes on Loeffler, enlarged the image as far as it would go, and waited.

The time came when he should have gone to the steam room. He was half out of his seat, but he couldn't leave. Loeffler hadn't turned yet. The ships were light-hours apart. Hooker forced himself to sit down and to stay down, gripping the arms of the control chair with both hands. His teeth began to chatter. He shivered. A deadening cold spread through him. He sneezed.

The shivering and the sneezing continued for a long time, then passed. Steam-room time was over.

Loeffler began to turn. And Hooker knew why he had never turned for home.

There was no lifesystem at all. The lifesystem had always been the most fragile part of the ship. Aeons ago Hooker's laser had played over Loeffler's lifesystem and melted it to slag. Nothing was left but tattered shards, polished at the edges by gas molecules slipping through the ramscoop shield.

Loeffler hadn't died fast. He'd had time to program the autopilot to arrange a collision course with Hooker's ship.

Loeffler might have given up the chase long ago, but the autopilot never would, never could.

Hooker turned off his scope screen and went down to the steam room. His schedule was shot to hell. He was still trying to readjust when, years later, Loeffler's ramscoop field swept across his ship like an invisible wing.

Two empty ships drove furiously toward the edge of the universe, all alone.