

Cover by A. Leslie Ross

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KNOWLEDGE IS POWER
I AM TOMORROW
BLUNDER ENLIGHTENING
"X" FOR "EXPENDABLE" William C. Bailey  If my first caper didn't pay off, that "expendable" would be "expended".
BLOOD LANDS (illustrated on cover)



My one chance lay in my ship's being spotted...



## For "Expendable"

## Novelet of Deadly Pursuit by WILLIAM C. BAILEY

There was one way I might be able to retire on my earnings, and with most of natural health and beauty — that was to come through with a series of big-time capers. If I didn't, that "expendable" part of my job would find me listed as "expended" after a while. And this first caper had everything I needed for a good start — and the opposition had everything they needed for finishing me!



NE LOOK at the vaulted interior of the Chase Bank, and I knew I had made a mistake. A quiet branch office was what I wanted, not the over-stuffed mauso-leum downtown.

Vice presidents come cheap at the Chase. About twenty of them droned at their desks, set in neat rows in the bull pen. Each VP was defended by two file-baskets, one desk-set, one visiphone plate, one blotter, and one extra chair for suckers. Uniformed guards hovered over the gate in the low walnut rail.

The Cashier was my meat. I spotted the tiny black and silver sign over his door. He had a private office and a protective secretary. I let her peek at my badge; she popped her eyes and let me in at once.

The Cashier had a sharp, knifey eye, keen enough for a big-shot in the System's biggest bank. He slashed a glance at my badge and at me. "How much do you want?" he asked in a tone as cold as a frog's belly.

I had really only wanted a thousand or so, but his tone said he could count nothing smaller than millions.

"Five thousand credits," I said meekly. He sniffed; I was small fry. But he laid a comparative ophthalmascope against my right eye and slid my badge into its slot to check my retinal pattern against the magnetic image locked in the metal.

"X-3206," he read from my badge as he filled out the cashier's check.

"How do you want it?" the first paying-teller asked, impersonally.

I didn't really care, but I couldn't help feeling conspiratorial—or maybe I was just feeling my oats. Anyway, I leaned one elbow on the counter and snarled, "Used twenties and fifties, Jack," out of the corner of my mouth. I half-turned, and leered at the citizen behind me. That was wrong; he was one of those eager-beavers who spot a crook every time they see one, the kind that turns in police alarms. I picked up the dough without even counting it and beat it for the escalator to the surface.

It made quite a wad, more dough than I had ever seen in my life. Every step of the way I could feel Fidgety Frank's eyes crawl over the back of my neck, like two squashed bugs. I felt sort of scared.

It wasn't the first time that day I had felt scared. There had been a terse note on my desk first thing in the morning to see Foran. Visiphone would not do; he wanted a personal talk. You don't like that kind of summons after only two weeks on the job.

He had sagged through a few more birthdays than I had figured, maybe forty-five; it had grayed him some. He was sleepy-looking from too many years on the job and not very fast spoken. His story was written all over him; old-line bureaucrat, competent up to a point. But no real hot-shot would have been stuck in a backwater like the Cadmium Unit until he was forty-five.

Foran knew I knew it. He was tough an young guys; he was tougher than that on me. "Good morning," he said when I stepped into his office, conning slowly in his swivel chair to face me.

"Good morning, Mr. Foran," I replied respectfully.

He slid down in his swivel-chair, and laced his fingers lightly together in his lap. His head tilted thoughtfully to one side, which let him look at me on the bias. It was a gray, dry look, tinged lightly with irony. "What's your number, young man?" he asked.

"X-3206, Mr. Foran."

"My, my," he breathed. "If I remember my Academy days, 'X' stands for 'expendable'."

"Yes, sir."

His head straightened up. "You don't look very spent to me, young man," he said, his smile as dry as ashes.

I didn't think it very likely, but I gave him benefit of the doubt. I chuckled, as if he were a pretty funny guy. He chuckled back, as if he really wasn't. "Tell me," he asked, guileless as a pawnbroker. "Why did you decide to be an Expendable?"

I told him the truth. "I'm a big strong ape, Mr. Foran; I figured I might bull my way through a few big plays before I get old and slow, and make enough reputation to be pulled out of the front lines and given a hot job while I was young enough to do something with it."

FORAN NODDED, carefully relacing his gray fingers in his lap. He turned his swivel-chair idly in a short arc. "Somebody was mean to you, young man," he said. He kept tromping on that "young man" pedal. "The Cadmium Unit here has not been a very active front; you'll have a hard time finding the big play you're looking for. It's a good place, though," he went on in his soft, slow voice. "A good place for a young pup to cut his teeth." He turned back, thudding the palm of his right hand softly against the chair arm. "But one thing, young man: the Cadmium Unit has been running like a well-oiled clock ever since I've been here: I expect our new people to remember that, and try to keep our high standards of quiet efficiency."

"Yes," I agreed, "it is quiet here. On the other hand, I guess IPO must have had some reason for sending me to look you over." I tried to work a

friendly note into my voice. "But, shucks, Mr. Foran, what I'm doing won't upset your routine at all."

It didn't take. Quiet-spoken guys are funny when they get tough. They can't shout; they have to get even more quiet to sound dangerous. Foran sounded very dangerous. "Look, Sonny," he said leaning forward. "Don't ever forget that I'm the boss here." His gray eyes, brittle as the fracture in a casting reached at me from under his corrugated brow.

"I want one thing understood with you," he went on. "I expect that you will clear any of your projects with me before starting them."

That tore it. I shook my head regretfully.

"No?" he asked.

"No," I said.

His smile was clouded with regret. "All right," he said softly. "You're not the first hot-shot that has come gawking through my office, all feet and elbows. If you cross me, I know how to handle you." He gave me his very, very dry chuckle, the one with death written on it in black, dried blood.

"I don't want to call you a bunch of bad names," I said. "But don't think for one minute I have been nibbling around the edges of this defunct operation for fun. Before ossification becomes complete, I'm turning in a report to IPO that will singe you plenty; you've let this thing become as full of holes as Swiss cheese."

Foran leaned back, a tired, victorious smile on his gray face. "Well. we got it out in the open at last," he said.

He kept on smiling dimly as he swung his chair away from me; it was a gesture reminiscent of an above-ground worker. He looked thoughtfully out a window that wasn't there, forgetting he was in the thirty-third sub-basement, built two hundred years ago by a few farsighted guys in the old UN when they knew that war was coming. They had been abandoned catacombs for over a

hundred years, but IPO had tunnelled to them from some place uptown, and you stole clandestinely to work by compressed air tube from a secret port in a deep office building in Yonkers.

He pondered the imaginary view long enough to make my toes curl. "All alike," he said, to no one in particular. "Go away," he said, turning back at last. "You annoy me."

BACK IN the windowless little box I had for an office. I didn't feel so damned smart. I slumped in the creaky swivel-chair they had dug up for me when I drifted in two weeks before, and looked at the disordered papers heaped on my desk. Dusty piles of invoices heaped on each corner. Worksheets; a batch of D & B reports; and about fifty cryptic memos to myself that I could not quite decipher, having thought of them in odd hours out of the office. One peered like poached egg on hash from the viands on a menu; one was on my laundry-list, and one disreputable note huddled on a piece of paper whose ancestry I felt I should not go into.

With a finger on the visiphone dial, I decided there was no point calling IPO library downtown for more microfilm dope on cadmium shipments. The stuff was there, never fear, to hang Foran higher than a horse-thief; but the more I considered his confidence, the more sure I was he could bottle me up before I could button up my case against him.

That put a crimp in my style. In the minutes since I had left him, I was sure Foran had started to block me at every turning. He would try to keep me off-balance until he cleaned up the mess in his operation. Worse than that, smug as the old goat was, he would never think to check on what had slid by him in the past few months—he would scarcely dare to admit that had happened.

Maybe I was a small cog in the intricate machine Society had jammed together to prevent atomic war, but

I could not let Foran take chances with civilization just to keep the heat off his tail.

Okay, that meant I had to take a powder. My "expendable" classification left me free to cut out on my own any time I felt like it. And I felt like it. Foran would snow me under, tie a can on me, if I didn't; he was looking out for Number One.

You can't hit for the boondocks without some dough, especially when you don't know how long you'll be under cover. I had a couple names on a sheet of paper. which I grabbed, and then snuck down to the tube. A quick ride uptown to our secret "Entrance" in Yonkers, and I was aboveground.

The 'copter ride all the way downtown to the Main Office of the Chase Bank was about as depressing as a look at the atomic slag covering Manhattan always is. Its drab glassiness was broken here and there by pressure-domes protecting the entrances to the "Deeps"-big underground buildings-that were willing to go that far in admitting their presence. It had paid not to abandon the big slagdunes after the atomblast that melted the city down-the sewage, subways and underground wiring made a nucleus for the new deep city to rise from, like Phoenix from his ashes.

So I promoted five grand with my badge at the Chase and raced to the surface ahead of the coagulating worries of the depositor I had excited with my tough act. Standing on the slag outside the Chase's pressuredome, I called a 'copter by public radiophone. He let me off at 40 Worth Street, the heart of the non-ferrous metal district. There was no street there, of course, but the Deep kept the address it had sported before its above-ground portions had been melted down in the war.

THE PRESSURE dome over 40 Worth was in disguise. An ersatz Greek temple covered the entrance—probably put up some time in the late Eighties, when there was

a fad among architects to pretend they were designing above-ground structures; 40 Worth carried it to a silly extreme. The levels were quaintly numbered in the old style from the lowest up, rather than from the ground 'evel-down. I got off the elevator first at "eleven."

After a couple of barren calls on cadmium jobbers on the eleventh level, I rode further down to the fourth.

Haverford International, which had the whole fourth level, had a kind of simpering modesty about it. They deserved to be called "Haverford Interplanetary", but I guess the firmname ran back to the old days, and they were proud of it. The Haverfords were extinct—long since dead or bought out or squeezed out; a guy named Seeley was running things. I mooched around for a few hours with his order-clerk, looking over their cadmium shipments, and came back around quitting time to Seeley's office, a couple more memos to myself in my hand.

Seeley was a man to be remembered for his shininess. His black hair was so smoothly brushed it shone; his finger nails, while free from polish, had been buffed to a fine gleam; his too-white teeth, set in his dark face, had a glassy patina. But his eyes were the shiniest of all—little black buttons set on mother-of-pearl whites. And he never took them off you.



They were centered on my Adam's apple when I returned to his office. "All clear?" he asked me. I shook my head but gave him a friendly smile.

"Almost," I said. "A few of your shipments could stand some chitchat." He wanted to drag in a couple of hired hands, but I shook the idea off. "We don't need facts right now,"

I told him; "just an understanding." He relaxed, but his hard shininess never dimmed.

I told him that I had found that he had a pretty good-sized business in shipping cadmium to people we didn't know as commercial users.

He blinked and looked somewhat surprised. "So what?"

I shook my head and gave him the rueful smile. "Well, you're supposed to report that kind of caamium shipment to IPO. Order M-73."

"Never heard of it," he answered,

shining glassily.

So I told him that shipments of a long list of products to non-commercial users required a special report to IPO. He listened well, promised to do so in the future. He asked if there were a penalty for failure to file his reports, and wanted to know if he should call his lawyer.

I told him to relax. "A lot of companies wander into business that requires reports, and never realize it," I said. "No penalty; just check up on the order and keep us advised in the future. But for now, what do you know about these companies?" I looked at the sheets I had brought back from his order clerk. "Centenary Disposal Company, Old Style Tinsmiths, Inc., Ro-Be-Lo Corporation and Queen City Instrument Company?"

The shininess dimmed a little; he frowned. "Not a thing," he said.

"Well, who does?"

He grunted and hunched forward in his big, high-topped director's chair. "I don't know," he snapped; "is it a crime to sell cadmium?"

That made me think. "Why, yes," I told him blandly. "Under certain circumstances it's a crime, the penalty for which is death; don't you know that?"

BOY, DID that make him sit up straight! He got white around the nostrils. His left hand started to creep across his big desk toward a row of buttons. I surged smoothly out of my chair and hooked a thigh on the cor-

ner of his desk, almost pinning his hand under me. Now he couldn't reach the buttons without reaching around me.

"What about your salesman," I asked. "Won't he know?"

Seeley gulped. "Ah, yes...why didn't I think of that. I'll find out who he was." His hand started around my left thigh for the buttons.

I leaned over a little and pressed my left palm on his wrist. "No," I said; "no buttons." I let the hand up, and it drew back off the desk as he straightened in his chair.

"But I thought you wanted to know who the salesman was."

"Sure; you know who he is."

"No!" He leaned for the buzzer-buttons again. I pushed him in the chest, not hard, but enough to bounce him back into the chair. "Who?" I demanded.

Well, Seeley pretended to remember real hard. "Art Golz," he decided at last. I thought it was funny that one salesman handled all four accounts, but I didn't say so.

"Where is he?"

"I don't know, but I can find out." He went for the buttons again; that time I shoved his chest hard enough to bring his feet off the floor when he bounced back in the chair.

Seeley got mad. "Damn it!" he swore. "Golz can be anywhere this side of Saturn! Do you expect I know where every one of fifty salesmen is?"

The first push in the chest had gotten results. Never quit a winning game. I got a little tougher; I wiggled a finger at him. "Okay," I said. "Press a button." He leaned forward eagerly, and I caught him under the chin with the heel of my hand. His head snapped back and his body jarred into the chair. I leaned toward him. "I've had enough of your crap; where is he? Quick!"

He got whiter and shinier than ever. "Merino's Dugout," he said breath-lessly.

"Where's that?"
"Times Square."

"Oh, here in New York, eh? I'm just a country boy, myself. Now tell me something, Mr. Man; how do I get out of this building without using the elevator?" He didn't know, but his big plushy office said he was a liar. I looked around, and sure enough, there was a private elevator. The door opened with a key. I asked Seeley for the key; he shook his head.

He gave in when I put my hand at the "V" of my jumper, as though I were going for a weapon under my left arm. He didn't know there was nothing there more lethal than my "buzzer," as the old hands call their badge. At best, it might have made

a passable brass knuckle.

Good sense would have required that I check into what kind of a place Merino's Dugout was, but that would have meant a call into the office—and Foran undoubtedly had his dragnet out for me. Knowing I was trying to sail my own canoe, he would be using whatever means he knew to sink me.



ERINO'S was quiet as a church. The pressure-dome over its entrance, and a quite spectacular durolith-sign revolving in a drunken, hypnotic orbit, latest discovery of the advertising clan, belied its quiet, restful interior. It was what you might call a family tavern—just the kind of place you would pick if you wanted to tank up a little with the old lady.

The sign proclaimed Merino's was at Times Square. The slag around the entrance looked as drab as anywhere else on Manhattan, and I guess, if you know your old geography, that Merino's had as valid a claim to the site as anyone.

I asked for a quiet table, and got one they didn't have any other kind. A sneering waiter took my order for a drink.

He was gone only a few moments and came stealing back with my Martini. My upraised finger kept him at the table. "Page somebody for me?" I asked.

"Who you want, sar?"

"Arthur Golz."

"Who want him, sar?"

"No name; he's expecting me."

This time he stole away for many minutes. A band sighed softly somewhere, the electronic brass instruments nipping off delicate staccatos that no lip could have copied. Sterile stuff. No near-naked babes came around trying to peddle cigarettes, or pictures, or fluffy dolls. A few couples were dancing, but unostentatiously. Outside of being a little ultra-modern, and a little more plushy than you'd like for a steady diet, the place had a nice hominess. I had gotten to the stage of eating my olive before the waiter rematerialized. "Come with me, sar," he sneered.

It occurred to me, as we walked down a blank corridor, after passing through a door near the orchestra, that I was rather lightly shod for the work that might be ahead. Too late, then; my badge, in its holster under my arm, grew ominously warm against my chest. A magnetic search-beam had frisked me for metal, looking for weapons.

A light flared on the door at the end of the corridor. The waiter swooped and whirled in his tracks: his hands did something that I could not sollow. I stumbled up against him and saw the undulating glint of a blade in his hand, against my navel. My uvula got a big growth on it. Very big.

"Slow now," said the waiter, accent completely gone. "You should know better." His practiced hand found my buzzer in no time. He recognized it, blanched, and handed it back. He didn't know my silence meant I couldn't coax a single sound from my throat; he made me go through the door before him.

WERE quite obviously in the manager's office. Outside of the glow cast by a copper standing lamp, the room was in shadow. A pale suggestion of indirect lighting toned the vaguely distant ceiling. The thick, soft rug was a buff, just this side of being cream. Three large couches squatted in the penumbral edges of the room, trying hard to be a pale green in the dimness.

Merino himself-it could be no other-was seated in a tall-backed chair of the same light green leather behind a desk that seemed carved from a solid block of obsidean. It was not cluttered with the usual impediments of office work. No file-baskets; no desk-set, no visiphone plate. The waiter must have made some sign, for Merino straightened abruptly; he was as white as his desk was black. His jumper was white, his boots were white antelope hide. His dicky and tie were both white. His skin had a pale transparency that told he never saw the sun, and his face was topped by a thinning halo of silver hair. The whole impression was one of ethereal intellectualism, somehow perverted.

The waiter had made me, so I handed Merino my buzzer, which he looked at in silence, and gestured me to a seat. My words of thanks had a peculiarly flat sound in the air. The room was singularly free from echoes.

"I'm looking for Arthur Golz," I said.

"I'm so happy," murmured Merino; "have you found him?"

"Your waiter thought so," I said, poking a thumb at the man, who suddenly wasn't there. In his place stood a lean, cadaverous, lanternjawed gink in a brown traveling jumper.

The skinny one answered. "Okay, so you found me. What about it?" His voice had the friendliness of a buzz-saw. I realized with a sinking in my stomach that Seeley had taken me; I had been had. All that damned

business by the shiny guy about reaching for the buttons! When I thought back on it, it had been awfully easy to get Golz' whereabouts from him. He must have been delighted when I wanted to meet his salesman. Golz didn't look like the type who entertained out-of-town buyers to me. So I played it big.

"We got the goods on you, Golz," I said in my hard tone: "we tapped Seeley and he said we should squeeze you dry."

Golz not at all. "Your neck, pal," I even teeth scattered thinly along his underslung lower jaw. "That would-be tough guy," he jeered. "What are you after, snooper?" He stayed very close to my chair, bending a little from the waist. His knees seemed to be slightly flexed, as if he were about to spring.

I tried my hard frown. It was a little inexperienced, and it dented Mr.

Golz sneered, showing mottled, untold him. "But that can come later."

"Oh, yeah?" he said, swinging his jaw. A very original remark. But he italicized it, for his hand moved, like a thing apart from his body, crawling slowly up his jumper to the "V" of his lapels. What he had under his arm I did not wish to know, but he acted very much as if it shot people. I got cute. Oh, real cute.

I'm a long way from bald yet. I pretended to adjust a switch hidden by my hair and, raising my hand for silence, spoke into midair. "Hello, Foran. X-3206 checking in. I'm in Merino's private office with Merino and Golz." I paused and made a face like a guy listening very hard. A couple of nods added some realism. My lips moved as if I were about to break into his conversation. "Yes, sir," I said at length. "Yes, sir. At once."

Golz was worried. He was frowning. He looked over to Merino. "Can he get away with that?" he asked, his lantern jaw hanging out a mile. Merino showed his teeth. They were as white as the rest of him; his smile was not nice.

"Not in this office," he purred, toying with a copper letter-opener. "My screens stop anything, My lights have to be battery powered. No wave-propagated energy can penetrate to this room. Or from it." He regarded me with a mildly reproving smile.

THAT HAD been a little stupid. For a minute I was tempted to laugh and say I was only kidding, but one more look told me that Golz seldom kidded about anything. He stopped paying the slightest attention to me; he had written me off as a big zero in his life. He talked only to Merino, still standing close to me in that funny half-bent, half-crouched position. "Suppose they've got a tracer on this punk?"

"Very likely," said Merino softly, opening a drawer in his desk about thirty centimeters.

"And on me?"

"Maybe, but less likely, since you got in scarcely an hour ago. Then, too, they had to page you."

"How much start can you give me?"
Merino blinked and looked at me the way the butcher looks at the meat. "You mean how long before this thing is back in circulation? Well, we can shoot him full of heroin and leave him in some hop-joint for a day or so, but that's about the limit. I'd better leave with you. No point to killing him—since we're caught, anyway. They'll pick him up with the trace-beam if he doesn't report in pretty promptly, I suppose."

Things had gone much too far, with me having no control over them. I stood up and moved quickly between Brother Golz and the door. Merino was a white flash with a big black object in his white, delicately-veined hand. But Golz was between us, and Golz was in a grip of steel, one thumb in a vital plexus, one thumb on his windpipe.

"Stop!" I ordered flatly in the echoless room. I felt the sound-absorbing deepness of the carpet—there was

no resonance in my feet. Golz stopped; he became a human statue with one hand half tucked under his lapel. I let up a little and he sucked a ragged breath around my thumb.

The black, menacing thing in Merino's hand came up at the end of his arm, until it occulted his face. He was aiming carefully. I cursed Golz for his skinniness and tried to turn my flank against his back; he was too thin too hide me.

I hit my hip against Golz and gave him another breath. "Can he shoot that straight?" I asked.

"No!" he squawked. "No, Merino, don't try it!" The big black thing was lowered. Merino frowned.

"Put it back in the drawer," I ordered, "and shut the drawer." He did both. Golz, under the pressure of my thumbs, sank in the chair I had just vacated. My hand slid down from his throat and plucked the electron pistol from under his arm.

I had them back on their heels for a moment, and made it good by stepping briskly around the desk, opening the drawer and taking Merino's gun out. It seemtd to be an old-fashioned cordite pistol of some kind, not an electronic weapon. A heavy weapon, eight or nine millimeters, and from the feel of the grip probably a twentyshot affair; I saw, now, why Merino figured he could shoot around Golz without injury to him. Golz' electronpistol was excess-baggage: I tossed it through the dimness to one of the big couches. Merino's gun would wound as well as kill, and I wasn't mad enough to kill, yet.

I stepped back far enough to cover them both. Things had taken a serious turn, and one that I was not quite prepared for. I was shaking like hell inside, especially when I figured that Merino probably could have shot me without touching Golz—and would have, if the skinny guy hadn't thought Merino was using an electronic weapon. Well, so had I.

"The first man through that door

dies, Merino," I said. "Who is he likely to be?"

HE SHOOK his head, eyes dark in his pale face. His delicate hands worked as though he were fingering something soft and pliable. "Nobody who doesn't knock first," he said, purring thickly. "What is this all about?"



"You tell me," I said. "I want a few friendly words with Breathless here and he pulls a wing-ding. And you point big black things at me. Such unfriendly people!" Merino was looking at the gun, frowning intently; his spidery fingers had frozen.

He got up and moved toward me. one quick step, and stopped. I raised the muzzle until it contemplated his navel. He stopped short. From the corner of my eye I could see Golz rubbing his neck. He barked a laugh and sprang forward, with Golz leaping at me at the same time. Golz, I knew I could take: I squeezed the trigger at Merino's flat belly. A solid, disappointing click followed, intimately mingled with the crack of Merino's pale white fist against my jaw. He was too light for that kind of work. I slapped his halo with the side of the gun, and saw it go bloody as I turned to take Golz off my side. He didn't want to come off; when he had the initiative, he fought well, and very dirty-almost as dirty as I did. His scream of pain as I twisted his head was cut short by a queer frangible sound. He went limp.

Somehow I knew in that second that I had been blooded; I had killed a man. It shook me up badly. I must have looked down at the impossible angle of his head to his body for many seconds, at the heavy pistol he had wrenched from my hand, its barrel

still in his relaxing fingers. While I stood there, Merino crawled out, like a squashed bug, leaving a trial of blood on the fawn rug. I did not see him go.

Retrieving the pistol that had refused to go "bang," I looked it over. It had a safety-catch, to be depressed with the thumb before firing. Merino had seen that I was not familiar with the old weapon, and that I had not depressed the catch. He forgot it was a good bludgeon; most of all, he forgot I was a big ox, and conditioned to acting expendable.

That conditioning was enough to force me to search Golz at once. His pockets held eighty-seven credits in small bills, a key to his room at the Nether Waldorf; a ball pen; flier keys; a perpetual chronometer with two faces, one front and one back. Front was terrestrial time, five hours later than mine, and the other was a time I did not know. The dial provided for a day of 72 hours, and a red inner dial a day of 144 hours, with concentrically mounted hands of black and red respectively.

Clipped to the small wad of bills was a sheet of yellow pulp paper, such as is used to make rough notes or calculations. On it were two columns of figures, thus:

588	617
624	884
659	1172
911	1173
143	1208
404	
437	

After cocking the pistol once more and familiarizing myself with the safety-catch, I forced the barrel into my badge-holster and stuck my badge in a pocket of my jumper. I left Golz' electronic weapon on the couch. The Cashier was my next target, and his office had a small herd of gabbling waiters in it.

I WAS FEELING pretty wild by that time so I waved the pistol around after grabbing the Cashier.

Everybody else left. "How much did he take with him?" I asked.

The fat roly-poly man stuttered and looked at the gun. I put it up, which enabled him to talk. "I don't know. He cleaned out the safe."

"OK, Precision Instrument. Approximately how much?"

"A couple hundred thousand, at least."

"Where did he go?" He shook his head. "To Golz' place?"

"Maybe; he didn't say."

Then his eyes got crafty. He was already forgetting about the gun. "Why? Has Golz got a place?"

That was my question too; a quick 'copter ride to the Nether Waldorf did little to help me find out. Merino had beat me to it by minutes, but the doorman, impressed by my buzzer, remembered that a man all in white had hopped a 'copter to the rocket port, Merino was hard to miss.

I didn't dare use the visiphone; Foran probably had a dragnet out for me, already. Besides. I figured Merino was well enough heeled to have emergency-transportation in standby condition. That was right; he had a charter space-sh'p there, with its plates hot, and he was in deep space by the time I reached the rocket port.

I might have called it off there. While there was no proof Haverford was up to something, Seeley, Golz and Merino had made a fair case—fair enough, eventually for me to override any blocks Foran tried to stick in my way. But eventually was too damned long: there was no time to start the wheels of IPO grinding in their relentless way all over the system. It was an article of faith with me that the yellow slip of paper on Golz was the key to the puzzle and that this puzzle had to be cracked at once or never.

I sat down in the waiting room and took out the two things I had saved of Golz'—his watch and the paper. I regarded the watch for some time. The terrestrial time I could understand; five hours later than New York was Greenwich. The wearer was either a Britisher or a non-terrestrial. Merino had noted Golz had just "got in" from somewhere; I bid on the latter.

The other face of the watch was harder. I went to the phone-booth, stuck my badge in the slot and took a chance Foran might spot me by talking to the IPO library.

"What two bodies in the System have sidereal periods of 72 and 144 hours?" I asked. The answer was, of course, none; things weren't that easy. I hung up and used my own stopwatch to time the black second-hand and the red second-hand on the reverse face of Golz' watch. Then I called back.

"Those two bodies, the first has a period of a little over 80 hours, the second just about twice as long." In about three minutes I knew that the sidereal period of Europa was 85 hours 13 minutes and 42.05 seconds and that of Ganymede 171 hours 42 minutes and 33.5 seconds. Check.

Europa and Ganymede are the second and third larger satellites of Jupiter.

MY LUCK was good. I hoofed it over to the Terrestrial Patrol's launching pits, badged my way past the guard to the Base Commandant's office. The Patrol had a 30-meter job warming up to relieve one of the evercircling fleet of Planetary Guardians. The ship was fueled and provisioned for a month's patrol, and well enough armed to stand off anything Merino's ship might have on board.

I got twice as creepy a feeling flashing my badge on the Base Commandant as I had gotten from giving the Cashier at the Chase Bank a peep at it. IPO has maybe ten thousand employees who rank high enough to have summary powers. Most of them by the time they reach that state, are safely ensconced behind three secretaries and a big desk. About the only time the public ever

gets the impact of our almost limitless right to requisition property comes when an Expendable flashes his badge. With only a hundred of us hot-shots being set loose in the System each year by the Academy, we get to be rara avis in terro.

My idea made the Base Commandant unhappy. Losing the ship he had warming up to me on requisition meant he would have to hold one of the Guardians in space beyond its normal patrol while he readied a replacement. I got the kick of a forger passing his first phoney thousand-credit bill when the Commandant okayed my requisition. Things moved fast after that; within fifteen minutes we had blasted off for the Jovian System.

My commitment by that time was irrevocable. Behind me was a dead man, unreported; behind me was a requisition for some damned expensive travel. I had not asked what the Patrol would bill IPO for the ship, but I knew it could not be less than seven thousand credits an hour for a 30-meter space-ship and crew of seven. And we were one hundred and four hours to Europa.

I had requested secrecy from the Patrol regarding my departure; nothing indicated that a message had been radioed to Merino about it. Foran did not know—the requisition for cash and the space-ship would not come up for administrative approval for several months. I imposed radio silence on the ship. Foran could probably dig my grave by radio before I ever reached Europa, if I tipped him off where I was bound.



PACE FLIGHT is monotonously silence bordered by the deep uneventful, and except for the drone of the jets, as featureless as a

pneumatic-tube ride. With the help of the navigator we passed a lot of time doing some very fine things indeed with the numbers Golz had jotted down on the yellow slip. Some exceedingly clever mathematics were called into play, in an effort to find some relationship of the numbers to each other, or the two sets to each other. Or to anything. We tried it as a crytogram, as a code and as a cipher; we used up about a mile of calculator tape and grew no wiser.

lets down, we drew in toward Europa on a long parabolic orbit, made difficult by Jupiter's heavy perturbation effect. Minos, the capital city, was darkside, and our Captain insisted on a weightless detour of four hours before dropping toward the morning-zone and landing at the well-hidden rocket port. All I could think of was that the detour added twenty-eight thousand credits to my soaring expenses. Recognition signals exchanged, our jets cast violet flashes over the frozen, airless surface. The camoullaged done opened its iris like a giant eye and we dropped in, a rough grounding softened somewhat by the feeble gravity.

IPO has a substantial office on Europa, about twenty kilometers by pneumatic tube from Minos. Big, armored robot-domes, as craftily disguised as a duck-blind, ring the underground base, and muzzles of giant weapons stare in mute readiness into the airless voice.

A grizzled space-veteran, twenty years past his Academy days, was in charge. I went from the tube-exit to Harding's office at once. He greeted me warmly; I guess IPO visitors to Europa are not too frequent.

In spite of the no-smoking warnings all over the deep fortress, he calmly bit the end from a pale green cigar and lit up. Nice to be a big frog, no matter how small the puddle. I could hear the quiet pant of the air-conditioning that swept the long plumes of smoke away as fast as they drifted up.

I looked Harding over carefully. He was big and square—not dumb, but big. His ruddy, space-burned face showed marks of old combat—or at least the traces of the plastic-surgeon's knife. Fine lines of white scar tissue radiated from the corners of his eyes. His square jaw repeated the motif. By some miracle he still had his own strong teeth.



His big fingers dwarfed the cigar. "We are honored," he said, "what are you after?"

I grinned. "I'm trailing a crook named Merino," I told him. "There has been a break on the cadmium front, the trail leads to the Jovian system. It looks like it might be touch and go."

Harding's big tough face crinkled in a frown. He would have been a hard man to take a few years back. "What's the lead?"

I trotted out the story of Haverford's unreported cadmium bar shipments, of the fight with Golz and Merino's flight, presumably to the Jovian system. It sounded a little tenuous when I admitted my only lead was Golz' watch, then I gave him Golz' numbers which meant no more to him than to me.

"No," he said. "Each Satellite office reports to IPO, Jupiter."

"Well," I said. "Can you turn your boys loose on a hunt for Merino? I'm sure he has holed up somewhere in the Jovian system. A check on billings by your non-scheduled carriers should turn up something in a hurry. And I wish they would sniff around to see what kind of grift Golz was working on Jupiter or any of the Satellites. We can get retinal patterns on both guys from IPO, Terra,

you might have your hot-shots take a gander at those numbers, too."

Harding nodded. He poked a stubby finger at a button on his desk. "Right now," he said. He poked another button. "I'll ring Ganymede in on it, too, and if nothing turns up by tomorrow we'll cut IPO, Jupiter, and the other Satellites in on the deal."

THAT MADE it look pretty good. IPO is equipped everywhere to do a 99% perfect research job in about about nothing flat. I figured I had put Foran far enough behind me to tip him off. Four days in space to Europa had let me cool down. I hoped the old buzzard would begin to see the light, so I coded this radiogram to him:

FORAN IPO NYC FOLLOWING YOUR SUGGESTION ARRIVED HERE TEN TWENTY GMT OCT TWO IN PURSUIT MERINO OF MERINO'S DUGOUT SECTOR O SIX NYC STOP HIS FLIGHT FOLLOWED FIGHT WITH HIM AND **GOLZ SALESMAN FOR** HAVERFORD INTERNATIONAL FORTY WORTH NYC AFTER REFUSAL REVEAL USE MADE SHIPMENTS BAR CADMIUM CONSIGNED CENTENARY DIS-POSAL CO AURORA ILL OLD STYLE TINSMITHS CHEYENNE WYO ROBELO CORP TAHITI AND QUEEN CITY INSTRU-MENT CO PLAINFIELD NI STOP SUGGEST IMMEDIATE SUBPOENA HAVERFORD BOOKS ANDRAIDS NAMED COM-**PANIES** STOP REGRET GOLZ KILLED MERINO'S OFFICE IN STRUGGLE STOP SUGGEST DE-TERMINE WHETHER BODY TURNED OVER CORONOR X THIRTY TWO OH SIX

A few hours later Foran answered with:

X THIRTY TWO OH SIX CARE IPO EUROPA OK BIG SHOT FORAN

That was an unhappy message. Foran had left it up in the air

whether he went for my gimmick of saying that the trip was at his suggestion. I had wanted to tip him off I was far enough along so that he could not stop me, his "OK" might have meant he gave in, but that "Big Shot" was a teaser.

I was getting cold feet, and that didn't help. Already my little caper had run past the million-credit mark, and it was spiraling dizzily higher. Foran knew my bosses in IPO were scanning my first caper with doubly keen eyes; maybe he still thought he could cut me down to size. A night's sleep on his radio served one purpose. I woke up mad enough to resolve I would come back with the bacon, or in an icebox for decent cremation.

The next day Foran radioed that Old Style Tinsmiths really used cadmium in an old style solder, made of ten percent tin, ten percent cadmium and eighty percent lead. He also thrilled me with the news that Oueen City Instrument Company used cadmium to cadmium-plate marine instruments. But I had struck it rich in Ro-Be-Lo Corporation: it seemed there wasn't any such company, and some cuties had been posing as Ro-Be-Lo just to get cadmium from the customs-house on Tahiti. They left no trail past the customs-house door. The last wrinkle was that Centenary Disposal Company, Aurora, Illinois, was disposing of cadmium bar by shooting it into space in robot spaceships.

And better yet, a monitor space-ship was then detected by the boys; apparently, it was used to establish delivery-orbits for the robot-ships loaded with cadmium bar, once they were well free of Earth's gravitational influences. The boys had pulled in close to the monitor, and it had blown all to hell in an atomic blast. The last piece of fretting news was that Haverford's records showed the diameter of cadmium bars going to Tahiti and to Centenary Disposal was

ideal for use in a graphite uraniumpile operation.

That made it the second time I might have stopped. By now I had Foran where I wanted him-too much had come out for him to be able to bottle me up. What had been dug up on my hunches and work already was worth every credit I had cost. Somewhere, a group of maniacs was making a wild, irresponsible play for power, somewhere, they had cached a hydrogen-lithium bomb and were desperately attempting to make a plutonium primer for it. They knew they could not operate a lithium-plutonium direct conversion directron without setting off alarms all over the solar system, and had elected the out-moded, almost-forgotten uraniumpile technique. Graphite they could get, or make, without exciting comment, but cadmium bars were needed for dampers. That old technique was the whole reason for the existence of IPO's tight control on cadmium. And in my first caper, I had hit the first real cadmium case in a generation.

Yes, I could have stopped, radioed back that the thing was too big for one man, and turned the whole IPO organization loose on it. But something told me time was too short and that I was too near home, with Harding on the job I was sure results were only hours away.

I WENT DIRECTLY from the code-room to Harding's office, after receiving Foran's message about the robot space ships. The cigar was going when I got there. One big square shoe was tapping as low tattoo on the asphalt tile of the floor and echoing hollowly against the steel of the walls, ceiling and furniture.

I told him about the radiogram. "What have your guys dug up for me?" I asked.

"Not much," he said, ducking his square jaw.

That puzzled me. "Funny," I said. "Two guys like Merino and Golz

couldn't go far in an airless system without leaving some trace; what have you done on the job?"

Harding squirmed, if you can say a big piece of beef like Harding ever squirms. "Well, nothing, really," he admitted.

"What?" I yelled at him.

"Now see here," he exclaimed irritably. "I can't get all worked up every time some pup comes through here with a cops-and-robbers story, and wants me to poke into the private affairs of every businessman on the satellite. Why don't you relax and beat it back to New York? We can handle this in our own way, and with a lot less fuss; I can get you space home tomorrow."

That was a surprising and very revealing speech. I looked at the smoke from his cigar and he looked at me. The air-conditioning panted; a phone buzzed. He said, "Busy." We kept on looking.

"I get the pitch," I lied at last.
"Tell you what; if you're embarrased, why don't I just invoke my summary powers and subpoena the invoices from your non-scheduled carriers?"

Harding felt he had me running. He stretched his big mouth in a hard grin over his square jaw, shook his head. "That won't buy anything," he said, almost chuckling. "Our non-scheduled carriers do some funny things, not enough for us to come against them, but enough to make them want to keep their business to themselves. They own the local police, and they'll get restraining orders that'll stop you in your tracks."

I bet they would; I bet they'd be tipped off in plenty of time. I bet I was getting mad. I had to truck out the hard grin I had used so ineffectually to soften up Seeley and Golz. It didn't do much better with Harding, but my idea did. I gave it to him: "I want to read every radio message you have exchanged with IPO, New York, since I got here." He turned beet-red. He slammed his big square

hand resoundingly on his desk.

"No!" he yelled.

"Then give me a top-priority direct radio beam to General Headquarters, IPO. Harding, I'm turning you in for collusive suppression of evidence; you're under arrest!"

He jerked a square finger toward a button. I let him look at Merino's big, black cannon. He hadn't counted on that; he left the button alone.

"What do you think this is, charades?" I asked. "If you and Foran scratch each others' backs once in a while, what the hell? But when you play footy with me, Jack, you'll get kicked in the kisser every time."

The redness in his face had given way to a worried pallor. A tired old warrior who had his good fights behind him. Too many years behind a desk. Now he was just an old Bureaucrat, trying to make the right play for security. I let the gun rest on my thigh; it's rude to point.

"Look, Harding," I told him. "You would never dare hold out on me completely; and you could never defend refusal to look into an atombomb case. To me, that means you've worked it out already. Whether you've given Foran the dope or not, I don't care. But so help me, hand it over now or I'll run you in."

Harding made up his mind; he ditched Foran and whatever Foran meant to him. "OK," he conceded grimly, "so you're a wise guy." He reached cautiously for a button. I let him press it.

The dope came in quickly. Golz was known on Callisto as Robert Minor; his retinal pattern was spotted in a half a dozen commercial transactions—particularly on three invoices of the Calistonian Charter Service—and paid from Minor's account with the Callisto Bank of Commerce, to wit:

To charter flight, Callisto—659 To charter flight, Callisto—1172 To charter flight, Callisto—1173 The numbers, of course, were the asteroid-numbers of three of the Trojan planets which "Minor" had visited. The numbers on his yellow slip of paper had been the asteroid-numbers of the two families of Trojan planets that rotated in Jupiter's orbit, the first about 60 degrees in advance of Jupiter, the second 60 degrees behind Jupiter. The three he had visited had mining-stations; the others were inot known to be inhabited.

The military equipment on Europa you could put in your eye. I figured we would be forty or fifty hours, at least, getting anything from the main IPO base on Jupiter worth waiting for. Fifty hours was too long, so I decided to go it alone in the most suitable thing I could requisition on Europa. I was getting blase about requisitions. I gave Harding my plan. His eyes glinted for a minute or so with what I took for rekindled battle-lust; he didn't try to dissuade me, perhaps remembering his turbulent early days with IPO.

WE SHOT back into Minos by tube. I had barely strapped myself in the tiny cylindrical car when the catapult snapped us into the full blast of the pneumatic tube. With my head against the rest I blacked out a little as the car accelerated through a few seconds to equilibrium with the compressed air's pace.

The deep intercity tubes on Europa were barely wide enough for fore-and-aft passenger accommodations. Harding rolled his head around the rest and looked back at me. He shouted above the hiss of the car's compression rings on the tube's walls. "IPO doesn't have a ship here fit to use; there's a guy named White-head who has a job with a protongun. Don't ask me what he does with it, and for Pete's sakes don't ask him!"

Already, it was time to press my forehead against the deceleration rest. The red light flared and we braced ourselves for the jolt as we

were shunted out of the tube and into the deceleration track at Minos.

Harding kicked the dogs on the pressure-door, and we clambered out of the cramped cylinder.

We rode a dinky rattling monorail through dark, slightly lit tunnels to the rocket port. It was about one stage better than an assembly-line conveyor-system.

The launching-pits were hugely vaulted hangars, eerily lit by the merciless brilliance of thinly-scattered mercury-vapor lights. The black steel of the floor and the black. rough-hewn walls drank up the light. It was cold and our breath steamed frostily. The beryllium hulls spaceships in their launching-racks glinted chillily, reflecting in icy points the distant lamps. The scuffle of our feet on the steel decking made hollow echoes.

Whitehead was waiting for us there. He was tow-headed and satellite-tall, the kind of guy who back on Earth likely as not would be called "Tex" or "Slim." Harding called him "Whitey." He shook hands with that soft, not too firm clasp that spoke of slight satellite muscles.

Harding said, "I want you to meet Whitey; he's our biggest non-scheduled carrier. Maybe he's got a ship you can use." He jerked his head at me. "My friend here is from IPO; he's in a stew and wants to requisition one of your ships."

Whitehead gave me a squinty look. "Just what are you looking for?"

"A one-man job; fast enough to run away from what it can't fight, and strong enough to knock down anything that can run away from it." "Where you going?"

I shrugged. "Any satellite or asteroid, I guess; maybe Jupiter, too."

Whitehead nodded. He swung a long, loosely-jointed arm in a careless pointing jesture. "We got delivery a couple months ago on a new Jovian rocket-plane; it's got four jets mounted in pairs in the wings,

cowled, vented and cleaned for operations on Jupiter if necessary. Have you ever flown a rocketplane?"

I told him I had, but that I had never shot any landings on Jupiter.

He grinned. "What kind of instrument-license you got?"

"The whole works," I said. "All blind-landing systems and instrument-procedures."

He nodded, "Good enough, This four-holer over here should suit you."



THE SCUFFLE of earthside shoes mingled with the echoing clatter of Whitehead's hobnailed boots as we walked across the gloomy vault of the hangar to the nearest launching rack. A stubbywinged rocket plane was poised vertically in its cradle, its beryllium hull glinting with a new shininess that told of infrequent trips through Jupiter's poisonous atmosphere. Twin jets bulked huge in nacelles in each wing, much bigger than I had expected. Then I remembered that they were loaded up with special equipment to keep them operating within Jupiter's highly reactive atmosphere. It was a pretty big ship, maybe 30 meters, with a heavy proton blast in the turret. I turned to Whitehead. "That damned thing looks too big for one man to run."

He shook his head. "The jets are full automatic," he said. He gave me a hard look. "It might depend though," he added; "what are you going to do with it?"

I raised an eyebrow at Harding. It was IPO business, and Whitehead was just one more tough-guy skirting the edge of the law. Harding nodded. "He's okay," he said. "Tell him."

I gave Whitehead a little of the dope on our search for the atomic-

pile we were sure was being put in operation on one of the Trojan planets.

"It might be there," he said. "And it might be in some wild part of Jupiter, too." He looked me over. "You'd better take a pilot, and a couple men to run the drive."

I shook my head. "Too risky," I said. "I thought it was full automatic; why do I need any help?"

Whitehead grinned. "You might be gone longer than you think. Either family of the Trojan planets is 60 degrees around the orbit. That's about 400 million kilometers." He gave me a superior smile. "I don't know how much you can take, pal, but it's between 100 and 300 hours according to the acceleration. You've got to sleep sometime; I'll make the run with you if you want."

That made sense; and, anyway, I decided I would feel better with somebody beside me. Whitehead, according to Harding, had been kicking around the asteroids as long as he had been shaving, and he was a trained Jovian rocket-plane pilot. I had no great warmth for the idea of diving that stubby-winged monstrosity through a thousand miles of blind-flying to the big planet's surface.

He sought volunteers from around the port. I guess he shipped anybody who was game for the ride everytime he went out on a job. I wasn't overly impressed with the crew he brought back—a couple of underfed looking Orientals named Fumiyake and Matimoto; they looked too frail to last through the kind of junket Whitehead guessed we might be on.

It didn't take long to know that Whitehead meant business. It was spacesuits all around before we got on board. He was warming the plates while they tried to fit a suit around the beef I carry. With Whitey and me in the control blister, and the others in the belly, we let the launching-cradle feed us into the catapult-rests. The big airlock doors

closed behind us, and hard points of radiance from the stars glinted above us as the dome-iris opened. Within 30 minutes of the time I had met Whitey, we had blasted off, heading for the smaller group of Trojan planets consisting of 617 Patrochus, 884 Priamus, 1172 Aeneaus, 1173 Anchises and 1208 Troilus.

In spite of the size of the four-holer, we were driving so hard to-ward Priamus—nearest of the Posterior group of Trojan planets—there was no excessive crew room on board. The cargo-holds were bitterly cold, and contained no accommodation of any kind. I spent my waking hours space-suited in the tiny control room, stretching out in the reclining chair with faceplate open, and sleeping there in the discomfort of my suit when needed, for fear of injury were I to try to move about under the heavy acceleration we were using.

Jupiter had been eclipsing the sun when we blasted off, and the early hours of the trip afforded a splendid sight of Old Sol coming out from behind the colossus of the solar system, with Io and Ganymede in transit. Jupiter and his satellites fell rapidly behind us. Saturn was near to opposition with Jupiter, and the rings were open nearly to their widest, lambently spectacular through the refractor.

PRIAMUS was a bust. We noted nothing to suggest an atomic-pile was in operation, in several quick circumnavigations at differing inclinations to its axis. Our Geiger-counters clucked no faster than usual, and no unusual magnetic patterns manifested themselves. We skipped Aeneaus and Anchises—since they were inhabited, and nothing could go on there without news getting back—and found tiny Patrochus as blank as Priamus.

Troilus was different. Low Geigeractivity and a magnetic pattern that did not check out with our data on its magnetic field. Whitehead brought us low over the surface, at the greatest velocity consistent with a threegravities orbit around the tiny planet. Troilus is not any too spherical, so he was busy. It looked easy, for he merely ran the throttles back and forth over their quadrants; but I knew he was steering by differential control of the twin units in each stubby wing. He was out of my class.

Passing low over a sharp metallic protuberance on the dark side, we picked up a distress-signal on the radio. It was not an IPO signal and came over in code en clair. Whitehead raised his eyebrows and throttled back. A sharp reversal and deceleration swung us around and left us hanging on softly hissing jets over the origin of the signal.

"What say, Chief?" Whitehead said. "Is that sucker-bait, or is it the real thing?"

"Sucker-bait, absolutely," I replied; "I want down."

Whitehead frowned. "This is what you're looking for, isn't it?"

"Sure," I said; "let's go down."

He nodded, reached for his mike and was about to flip on the radio. "Uh, uh," I said, restraining his hand. "Their big gun, whatever it is, is certainly keyed to our carrier wave. The minute you put out a carrier we'll disappear in a big flash. And don't try to drop over the horizon, either; they'd wing you."

The throbbing vibration of the jets waxed and waned as Whitehead lowered us on a slant to the uneven surface. The pale violet glare of the blast cast jagged shadows across the sharply-curving landscape, but gave enough light to guide the grounding. He touched the hydrocarbon rocketstuds momentarily, laying the rocketplane down on its belly at the last moment. He picked good cover for the ship, behind a huge outcropping. He might be able to hug the surface on a get-away, shielded by it from the weapon we knew had covered our descent. The bright white glare of the hydrocarbon rockets faded as he closed all switches. For a long moment we sat quiet in the dark of the control blister, the luminous dials softly mocking the hard pinpoint of the stars in the airless sky.

I stood up carefully in the tenuous gravity and reached to close my face plate.

"Hold tight," said Whitehead.
"What's the play?"

"I'm walking over to that dome," I said; "they've got a pile set up there."

"For what?" asked Whitehead. "What can one man do?"

I grinned. "That's my job, Whitey." I told him. "That screwy magnetic pattern we picked up means we have only a few hours left. They've had that pile cooking for a week now, and its already operating on the Frisbee-Smythe cycle, magnetically damped. They must be making plutonium at the rate of twenty grams an hour."

"So what? We're safe here for now; let's radio Jupiter for help."

"Too late, Whitey," I said. "In the hundred hours or so it would take to get any help here, these guys would have completed their job and scrammed with the plutonium. They're only hours away from it now, the way that pile is putting it out."

I turned toward the airlock. "I'll keep in radio-contact with you. If I miss a call, blast off, if you can make it, call Jupiter and hang around to drop their ship with your proton blast."

Whitey stood up and bent a long arm to close his face plate. "Sorry, pal," I heard his voice in my headphones. "I can't see you do it. The engine-room gang can do as well with the ship as I can; I'm coming with you."

His features were almost invisible in the starlit blister, but I thought I could see a reckless grin through his face plate. I TRIED TO restrain him. White-head wasn't IPO; he didn't even act much on the side of organized society. His fast rocket-plane, his big proton-gun, everything about him said he lived on the fringe of the law, if not beyond it. He caught my thought from the tone of my voice. "Yeah, I know," he said. "I'm a funny guy for this play, but I owe the yokels something."

He really meant it. A few words to the others, who gave us their usual nod, and we were out the airlock,

leaping toward the dome.

It was our bad luck to be on Troilus' dark side; Jupiter, four hundred million kilometers away, gave little more light than Rigel. The footing was treacherously rough, and I took a couple bad spills; Whitehead seemed perfectly at home. It was scarcely minutes until the beacon on the pressure dome guided us in.

Whitehead held an electronic handweapon in his gauntlet, which I disdained, thinking it meant nothing beside the semiportable stuff undoubtedly covering us from the dome. The airlock was open; we went in and watched it close behind us. I felt my suit collapse around me as pressure built up, but my face-plate had cooled in the quick trip and it frosted over before the inner lock opened. You forget simple things like that. When I finally opened it, I was staring at Mr. Merino and the twin of the cannon I had taken away from him in the Dugout.

"Come in," he invited. Whitehead was opening his faceplate, too, and deciding against using his hand-blaster. I saw why; two men were backing Merino up, squatting beside a semiportable that could burn us both down in a split second. Whitehead kept his weapon pointed rigidly at the floor and handed it to Merino.

We both stepped across the sill of the inner lock, into a small square anteroom; its sides were of black steel, an elevator-cage making up most of one wall. Our spaceboots were noisy on the metal decking. It was cold; I could feel it on my face, and the air from my suit, humid from my body, steamed smokily outward from the faceplate opening. Merino looked whiter, more transparent than ever. A purpling cicatrice on the left side of his scalp testified to the relative hardness of his head and a gunbarrel. He saw me look at it. "Ah, yes," he murmured, his breath steaming. "You hit me, Snooper; I will repay you before you die."

I gave him the raised eyebrow.

"Take off your suits," he ordered. Whitey and I unzipped and divested. We weren't dressed for it; I saw that Merino's jumper was down-filled, and a parka was thrown back from his head. The cannon looked at one and then the other of us with the impartiality of Juggernaut. "Yes," said Merino. "You die, but you live long enough to talk." Over his shoulder he gibble-gabbled a few syllables to the two behind the semiportable. They troubled me, and they troubled me even more when the trudled it away on its casters through a door in a side wall of the anteroom.

Merino saw my frown. "You do well to worry," he said. The cannon jerked a command to precede him to the elevator cage. A hundred meters below the surface we stepped out into a bare office not much bigger than the room above us. No obsidian desk, no soundproofing, no rug. Just more men and black, unpainted steel everywhere, the welds gleaming rough and undressed in the unrelieved glare of a sngle mercury lamp set in the ceiling. A PBX on the desk, a couple file baskets with paper in them testified that something big enough to heed administration was happening on Troilus.

"Just what do you want to tell me, Snooper?" Merino murmured, hanging his spare haunch lightly on his desk, his gun, pointed negligently at the floor, huge and black in his delcate white hand.

I shrugged. "What don't you know?"

"How you found us; who is behind you."

I GRINNED the hard grin I had been practicing, but my shiver in the cold spoiled it. He was less convinced than Whitey, who now looked very solemn, having discovered in Merino a really hard guy. "I'm expendable," I told him; "those are trade-secrets, and they've got to be kept within the lodge."



In spite of the steel plating on the floor, I had not heard them come up behind me. Two men seized me, and with the grace and practice of a well-organized ballet, they put the screws on me. They hurt me as I had wished I could hurt Golz; they really knew how to hurt. Even hard guys scream, and I screamed bloody murder. They let up when Merino jerked the cannon. "Talk!" he said.

"Tell him!" Whitey snapped. His words gave me a chance to get my breath.

"What's the matter, pal?" I asked him. "Don't you like to hear me holler?" The way he paled, I knew he didn't. "Better get set, pal," I told him; "I'll yell till I fade!"

That kind of stuff is just plain bravado, but I had been conditioned to it, and I had no idea myself of how far those monkeys could go with me before I'd break. Merino had them try it a couple more times, till I blacked out. He brought me to by slapping the hell out of my face with his dainty hand. It was very hard for anything so white and delicate; it hurt. At least I felt a little warmer.

"Your friend gets it next," he said, and I heard Whitey whimper as he tried to keep from crying out with pain. A good guy. He figured it would soften me up if I heard him scream; he didn't know I was playing at being tough. I hated to do it to him, but I just shrugged.

"Go ahead," I said. "He doesn't know anything. Twist his wrist till his arm comes out by the root; it's nothing to me." Well, they tried pretty hard, and Whitey kept his jaw down tight. I had been telling the truth, and Merino knew it. He didn't have time to fool any more with Whitey. He made a good administrative decision; he abandoned ship.

BY NOW THE play was sickeningly plain. It was Oriental; the two Whitey and I had so trustingly left on our ship were in the play, and we could feel the vibration deep below the surface in Merino's cubicle as our four-holer blasted down to a grounding beside the dome. I heard the hum of the high-speed elevator, the rumble of hand-trucks. Some very brave guys, who thought they were as expendable in their cause as I was in mine, were getting ready to break up a uranium-pile that was hot as a pistol, Some of them would die for it, I knew; they knew, too. They didn't lack guts, those maniacs. The others were still holding us-Merino was needed elsewhere and had left.

It gave me a chance to take stock. I remembered the old quote from Major General Briggs, at Shiloh: "Things look bad right now." I was on a little hunk of iron sixty kilometers in diameter, a hundred million kilometers from anywhere. I still had Merino's original cannon under my arm, since nobody had troubled to search me, but a strong man held me motionless, with an electronic energy weapon against my kidneys. Whether Merino would take time to kill me, I didn't know; but that he would make sure I never left Troilus

I was certain. Things looked very black.

Okay, Big Shot, I said to myself, remembering what Foran had said. Big Shot, all right. Shot right in the pants. I hadn't figured to be "spent" quite so soon when I got my "X" classification. I had kind of hoped I could work my way out of it to something better in IPO.

Whitey decided the issue for me; I guess I would have sat there in a blue stew until they garrotted me, or whatever they do for amusement, unless Whitey had acted. He raised his hands to his throat and began to choke.

"Gas!" he said. "Poison gas! That madman is killing us all!" He made some very fine gagging sounds, and I caught his wink; I gagged, too. Whitey's guardian looked at his mate, a little fear on his stolid face. Whitey leaned forward, away from the weapon in his back, then put his head on the steel decking executing a quick somersault. But his hands had seized the guard's ankles, and they went down together.

A crackling discharge spent against the steel ceiling; ozone smarted in our noses. Whitey twisted like an eel, and my guard swung his gun toward that tow-head. He got him, too. Burned his face right off, with an awful stink of burning feathers, but he gave me time enough to prove that I could crush his skull with Merino's cannon. The other guard and I had a brief tussle for his weapon, but I hit his throat with the barrel of mine, and he quit functioning.

I was still on my hands and knees on the clammy decking when Merino stepped around the corner. I didn't forget the safety-catch that time; he just had time to raise his slim-fingered hands in an instinctive gesture of protection. The noise was enormous, much more than I had expected, and the recoil like the kick of a horse. The slug hit him in the mouth, and I could see where it had

torn out the back of his neck when he fell slowly forward in the weak gravity, almost at my feet.

But the noise spilled the beans for fair. I didn't know where the hell I was, or what door to open. I just leaped down corridors like crazy, slamming into one bulkhead after another, and yanked at every door I came to. I slammed into Fumiyake on the other side of one portal and fed him a slug in the guts before he could wink. I kept right on going. The last door opened flush against the airlock of a space-ship, but not the speedster I had come in.

It was no time to ask questions. I hit the "close" valve on the airlock and streaked up the laddered companionway to the control blister. It was dark as a cow's belly in there, and cold as it was dark. The instruments and control-handles phosphoresced spookily in the blackness, their fluorescent coatings glowing in the invisible light of a perpetual ultra-violet lamp.

We had to be about one hundred meters deep—I hadn't climbed anything after riding the elevator down. That meant the ship was poised in some kind of shaft, with at least light plating overhead. Or maybe a heavy shield.

The pale gloom in the shaft let me see she was a Jovian two-holer, one pot in each wing, with organic emergency rockets. I hit the "emergency" stud with one hand and the radio switch with the other. We popped out of that shaft like a ball from a Roman candle, spitting fire and careening in a no-control power application. Once I knew we were well clear of the surface, I cut the rockets and let her drift out. The tape showed the shove had been four G for about seven seconds. The radio warmed up, needles breaking reluctantly away from their pegs, and then speeding across their dials to operating positions. I had the mike in my hand when they hit me.



HE DOME had been armed, of course. Its heavy electronic weapon cut loose with a dose that must have bled Troilus of every spare electron. They sure charged me up; I heard the whole bank of transmitter tubes let go with a crash, and every electronic instrument on the board did the Big Apple and died.

Dumb luck. Just dumb luck. I hadn't started the drive-plates heating, or they would have overloaded, blown all to hell in the surge of electronic energy from the dome's weapon, and ended my little junket with a real bang.

So I turned the plate-heaters on, figuring the dome would have to wait longer than it would take the plates to heat before it could drive another bolt that hard at me.

My plates got hot, just as those in the four-holer I had ridden to Troilus were ready. Whitey's speedster blasted away from the dome after me, just as the two-holer's drive took.

Our power-mass ratios were the same. Drawing everything I could get from the plates and equalizing the tubes in each wing, the G-meter said I was clocking 6.5 G's. Whitey's pursuing speedster did not gain; but it didn't fall back enough to count.

I saw now I had commandeered a small edition of the ship Whitey and I had used on the trip to Troilus. The control-blister was cramped, the control-panel littered with only half as many dials, but twice as many handles as the four-holer's. The acceleration slowed my circulation, and the damned control-blister was cold enough anyway. I finally found the cabin heater-switch and the defrosting fan; my spine began to ache.

For a while, after blasting away from Troilus, I had felt a wonderful

surge of optimism; the pile, I knew, could not have been dismantled and stowed on the four-holer in the short time we had been there. They apparently had only the one ship, which I was using. All I had to do was flash word to Europa that the pile was on Troilus, before the pursuing ship caught me, and my job was done. But as I tried to think, straining to stay conscious against six and a half gravities, I realized I had no means of communication; the radio had been blasted by the electron gun from the dome. Any attempt at reversal, to permit landing anywhere, would mean that the four-holer could pull within range and let me have it with its proton-blast. My two-holer's armament had gone down the drain along with the radio, I felt sure.

Once again, in an hour of trouble, I thought of Foran. He would have gotten a certain dour satisfaction at the thought of me, driving the daylights out of my Jovian two-holer, headed for nowhere, and nothing to do when I got there.

SCANT MINUTES after take-off, the two-holer began to give trouble. Her controls were not full-automatic, and the hard use given the tubes was beginning to tell. My right tube was weakening a little, losing drive rather than shoving its temperature past the red mark on the plate thermocouple. But the ship was beginning to turn, and any further weakening in the tube would start a spin that would cost me precious distance.

I had to strain an arm—six times as heavy as it should have been—to reduce plate-current in the left tube. Of course I over-controlled; that started a weird dance as I tried to correct. Every damned control in the two-holer's control-blister was manual; and at the pace I was pushing her, my hands were kept busy. If the plates weren't getting out of balance, the jet-orifices were burning unevenly, or plate-temperatures were getting

to the critical ranges. If the race had kept up many more minutes than it did, I would have passed out from sheer physical exhaustion.

The six-G part of the ride lasted only about twenty minutes; it felt like twenty hours, but both of us tired at nearly the same time. I had been forced to throttle back slightly, to keep from passing out from the G-load—since there was no way to set up an automatic cut-out on the drive. But my buddies in the four-holer, apparently, had been forced to do the same moments before me, since they fell slowly astern, but well within pursuit distance.

Course became a matter of some concern by that time. I couldn't head for nowhere forever, no matter how fast I could run; sooner or later I would fall asleep, and they could spurt in and catch me. The dome had been on Troilus' dark side, with Jupiter fairly well in its zenith. As a result, the pursuing four-holer—and my two-holer-were headed reasonably well toward the giant of the Solar System. At three gravities—the speed we eventually settled on for the race, after several attempts at wearing each other out with high-gravity spurts—I could run the calculator.

A FEW NICE third-order curves were the result—curves that would bring the two-holer in toward Jupiter in a rapidly-tightening spiral, that would keep resultant apparent acceleration or deceleration at a constant three gravities while bringing the ship into the atmosphere below the velocity of fusion. Once inside Jupiter's blinding atmospheric blanket, I figured I might be able to shake pursuit; out in space, no matter how long I ran, I was a dead duck.

My friends must have figured my game, for they closed up dangerously on me, hopeful of getting close enough for a telling shot with their protonblast before I entered the atmosphere. They had to brake savagely, to slow below the velocity of fusion, in order

to follow me down into the first tenuous traces of Jupiter's atmosphere. Even so, my hull pyrometers went right off the dial, and temperature in the blister went to fifty degrees C. before the refrigerators got to it. Just about the first time I had been warm since Whitey and I had dropped onto Troilus' frozen surface.

The four-holer's proton-gun was now largely useless, since ionization of the atmosphere would dissipate anything point-blank shot. They still had short-range electronic weapons that would get me—as well as proton-bombs that were accurate at ranges up to a few thousand meters. But I kept my job travelling as fast as a safe hull temperature would permit, and they did not close up on me.

The two-holer kept me busier than ever, as we dropped at decreasing speed through the thickening atmosphere. Every damned control was manual, and I was playing with tube cowl-flaps, catalyst-cleaner flow and fuel-mixture valves like the drummer in a one-man band. In spite of my best efforts with an unfamiliar ship, I could feel a plate or two go sour in the tubes when I let the ammonia in the atmosphere get out of balance with the plate cleaner fluid. The ammonia was poisoning the catalyst on the plates at different rates, with each cowl-flap setting, and I had to play with the cleaner fluid valves like mad to keep power.

And I was beginning to need power. The tubes didn't have the old wallop inside an atmosphere, and you have to use the mass of the atmosphere, accelerated by the plates, for a lot of your KE.

The four-holer was gaining ground on me; at the rate it was closing in, it would be only minutes before they could finish me off. I cursed the dinky job I was driving—cursed its cheap manual controls—because I knew that Whitey's four-holer, with its fully-automatic tube-controls, was still putting out its full rated power. The others were having no trouble trying

to find a cowl-setting that gave enough ram-air and still left the plates shiny; they didn't have to feed cleaner-fluid like a doctor prescribing strychnine—a little to cure but not too much so as to kill. I guess I called them some bad names in those evil moments, when it looked as though all bets were being called.

The atmosphere had thickened considerably as we dove screamingly through it, leaving sound behind us in our supersonic dive for the lower levels. When the pressure reached five millimeters of mercury, it began to cause noticeable smoking when the plates went sour. It was like watching yourself bleed to death-that smoke was the thin catalyst-coating burning irrevocably off my plates and spewing in my wake. I could measure my life against that smoke. Nothing seemed to help-when I buttoned up the cowl-flaps a little, I lost ram-air, and I could feel the two-holer's speed sag. No setting on the cleaner-fluid valve seemed to balance the ammonia -either it was not enough to prevent smoking, or it was so much that the plates were blanketed and I lost more power. The others were getting close enough now to find it wise to pull out of my wake to avoid the smoke.

Smoke! Smoke!

THREE THOUSAND years ago, Indians in North America had learned to signal with smoke; so could I. Then I began to laugh. I began to laugh with a kind of hysterical venom at the four-holer behind me. Oh, Whitey had been proud of her full-automatic drive tubes! Those little men in her control-blister were sitting at her control-panel, never thinking of cowl-flap settings, of fuelmixtures, of catalyst-cleaner flow. They just poured the coal to it and let her ramble. Sensitive differential relays automatically adjusted every variable to draw the maximum power from the tubes, and every setting on them was automatically perfect. They couldn't be made to smoke even if you wanted them to; and that meant the four-holer couldn't make smoke to louse up my smoke message.

It didn't have to be very long. Just two words in IPO code: "Mayday Troilus." My stop-watch made it a nice deal-the dashes were three times as long as the dots. At seven kilometers a second, with cowl-flaps wide open—giving me plenty of ram-air but plenty, plenty smoke-I made my dashes thick, acrid trails of atomically energized, decomposing plate-catalyst sixty kilometers long. The plates lasted just long enough to spell out the message. High in the atmosphere of Jupiter as it was, it would be clearly visible to the closest satellites, perhaps as far out as Callisto. Certainly one of the moons would be in position to read it.

I guess the last letter of "Troilus" was a little messy. When the right tube quit and threw me into a quick spin, all I could think of was to cut the switch and nose her down. My friends had not closed up enough to knock me off while I was smokily losing power during my skywriting; they had given up any thoughts of vengeance, about half-way through the message, and were high-tailing it straight up and out of the plane of the ecliptic. I don't know if they ever came down.

The long glide down through a thousand miles of progressively more murky atmosphere was a lousy deal. There was plenty of time to struggle into an ill-fitting space-suit, and run a thousand mental rehearsals of deadstick landing technique with my stubwinged excuse for an aircraft. My radionic altimeter had been put on the fritz by the electron-blast that had knocked the radio out on Troilus; and the Kollsman was no damned good to me unless I had a decent barometric reading-and certainly not unless I knew what latitude I was landing in. Too damned much of Jupiter's enormous surface area is thousands of miles away from the nearest human to make a blind-landing any fun.

I fooled around, some, with the sonic altimeter, pretending I knew what I was doing; but the first real warning I had that the ground was close, was when it loomed darkly out of the murk. I didn't have enough sense to pop the flaps or gear, in spite of all my mental rehearsal. Fortunately, I hadn't burned away all the hydrocarbon fuel in scramming out of the shaft on Troilus; there was enough left to level her off a little and flop her in on her belly, just going to beat hell. Beryllium squealed with its characteristic tearing sound, but somehow we came to a stop on the tundra without balling up into a complete heap of scrap-iron.

FORTUNATELY, my smoke-mesage had been seen, and IPO Jupiter had been radioed from the satellite that had picked the message up. They had tracked me down with radar, and I didn't sit huddled up in the wreckage very long before a 'copter came chop-chopping through the gloom to fish me out and make for Olympus, capital city of Jupiter, where IPO's main Jupiter office is located.

When my knees quit shaking and I began to think again, I gave Foran this:

FORAN IPO NYC PILE LO-CATED TWELVE OH EIGHT TROILUS BELIEVE OPERAT-ORS MAROONED THERE NO TRANSPORTATION MERINO KILLED APPARENTLY BRAINS OF ORIENTAL PLOT RETURNING NYC IMMEDI-ATELY X THIRTY TWO OH SIX

I got his return message on Europa where I caught a packet bound for earth:

X THIRTY TWO OH SIX CARE IPO JUPITER (FOR-WARDED) REPORT TO ME



IMMEDIATELY ON ARRIV-AL FORAN

That was a message to roll around under your tongue. Our packet took 160 hours back in, which gave me just about a week to consider how thorough a job I would do on Foran. He deserved no mercy from me, after attempting to block me at every turn in the path. We hit New York about ten o'clock in the morning, New York time; after clearing Traveler's Control, I 'coptered directly to Yonkers, looking a little gloomily down on the glassy slag that smoothly coated Manhattan Island-and at the infrequent pressure-domes denoting the entrance to the huge underground warrens in which the city lived. After the usual security-precautions, I tubed down the East Side to Foran's office.

He hadn't changed any while I was away; he still looked gray, slight and sleepy. His fingers were interlocked relaxedly in his lap as he slouched in his swivel-chair. His gray eyes looked me over pretty well before he said anything.

"You don't look very spent."

"Not your fault," I said; "I'd look fresher if I'd had more help."

He showed a mild, dis-interested kind of surprise. "More help?"

"Yes. You've been fighting me every inch of the way since I left," I told him. I gave him my hardest glare. "Anything to discredit me and take the sting out of my report, Foran—that's what you've tried to pull. You'll get a big kick out of that report."

"Isn't the shoe on the other foot?"
Foran asked.

"Your radio from Europa very nicely confirms my report of assigning you to the case." He smiled dimly.

"Don't make me laugh," I told him; "I'm hep to your little game with Harding."

Foran chuckled softly. "Did you ever read the radios Harding and I exchanged?" he asked, looking at me on the bias.

I didn't answer right away. He looked a little smug. "No," I finally told him. The Harding-Foran Axis was smoother than I had guessed.

Foran carefully separated his fingers, leaned his elbows on his desk and bent over to peer into my eyes. "I'm no fool, even if you think so; and Harding has been wiping the noses of punks like you since you were in the grades. Those radios were very carefully prepared; you can't pin a thing on us."

For a minute there was a sinking feeling in my stomach. Then I knew he was bluffing. "You still have some tall explaining to do about your lousy system here," I told him; "none of this would have been necessary if you had been on the job."

FORAN nodded without rancor "Why, yes," he said. "If I am forced to. But so do you, young man, about some of the dumb chances you took. Your little caper wouldn't stand five minutes of tactical review.

You came through by main strength and awkwardness. And did you run up a bill!"

I suppose I could have made a crusade out of it. There was no doubt Foran's operation had been sloppy. I could prove it; I could probably cost him his job. But he was an experienced fighter—he would probably take me with him. And I knew I had thrown a stiff enough jolt into his ribs to make him sit up and take notice. Already, I was sure, the leaks in his system had been plugged with a lasting cement. From the bigger point of view, I had already won the battle.

The big guys smile when they take their licking. "Okay, Foran," I grinned. "I'm mighty grateful for the experience and advice I have had all the way through this caper. I'll bring up a draft of my report and we'll do a little mutual filling-in of the gaps, eh?"

Foran merely smiled his assent, gray, slight, and silent.

I went back to my office. The invoices were still there, leaning in dusty, drunken stacks on the corners of the desk. The windowless walls seemed to come in closer, box, me in. I was tired; I was a little defeated. But one thing I thought I could get out of Foran. I decided that I had sworn Whitey in as a deputy before we walked over to the dome.

Foran would decide I had done right; there was no reason why Whitey's folks shouldn't get an IPO pension.

That wasn't enough of a fillip to my jaded spirits. I felt like a drink; I felt like a bunch of drinks. And I knew a good place to go—where it was nice and quiet and homey: where nothing ever happened; where they wouldn't try to sell you cigarettes at a credit a pack, or fluffy dolls, or photographs. I could just sit there and get quietly stinko. I locked my safe and left for Merino's Dugout.

