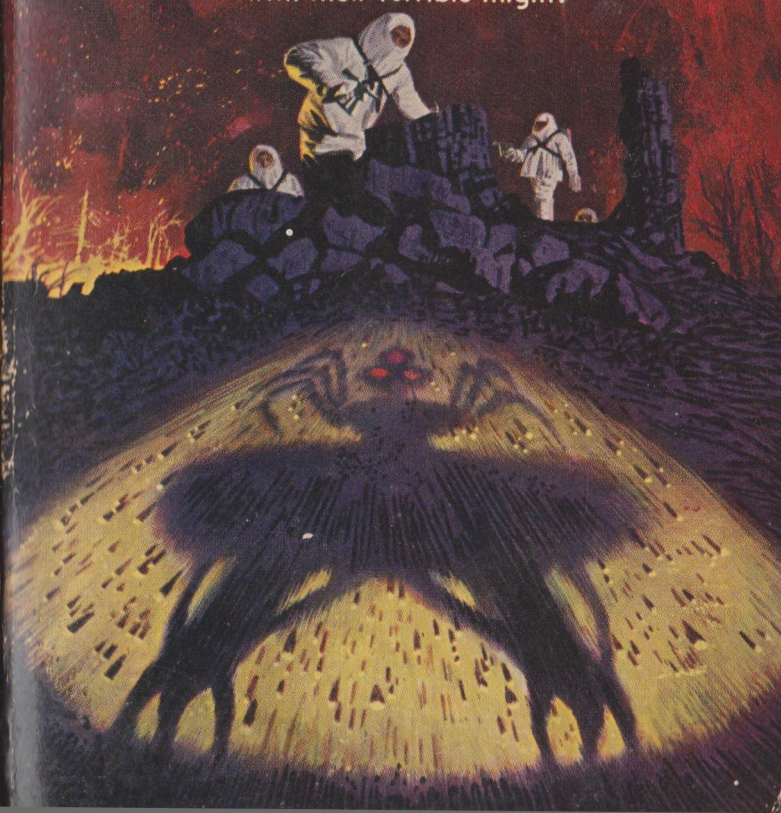
AVON ORIGINAL /S313/60¢

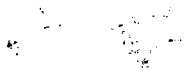
JAMES BLISH

author of the CITIES IN FLIGHT novels

VOR

Beings of unthinkable fury assault the earth with their terrible might!





What Sort of World Might Have Spawned a Creature with an Internal Temperature of Seven Million Degrees?

"VOR was still standing motionless in the tank, where he had been standing sleeplessly for several weeks now. His very motionlessness was frightening, especially after one had been made aware of the unthinkable fury of energy that raged beneath that black hide. The creature was holding the power in check—UNTIL WHEN?"

Also by James Blish

The *Cities in Flight* novels

THEY SHALL HAVE STARS
A LIFE FOR THE STARS
EARTHMAN, COME HOME
THE TRIUMPH OF TIME

VOR

JAMES BLISH

AN AVON BOOK

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AVON TRADEMARK REG. U.S. PAT. OFF. AND FOREIGN COUNTRIES, REGISTERED TRADEMARK—MARCA REGISTRADA, HECHO EN CHICAGO, U.S.A.

Printed in Canada

to DAMON KNIGHT,
whose idea it was.

one

THERE WAS NOTHING unusual about rain in southern Michigan—in the northern part, that is, of the Lower Peninsula—in late July, on Sunday or any other day; but Sunday somehow made it seem drearier and more threatening. The air in the operations shack was leaden and dim under the single bare bulb, and the atmosphere was—

Ominous was the word that sprang into Marty Petrucelli's mind. It was an absurdly overblown word for the sense of frustration that had gripped the squadron; but it wouldn't go away. Squadron Seven, Merger County Group, Michigan Wing, Civil Air Patrol-USAF, was in the grip of the sulks.

All thirty-four civil airmen and fifty cadets were on unpaid, and, at the moment, loveless bivouac duty. Rain on Sunday, in the darkest of all godforsaken pine forests, was a personal insult. Every glutinous drop seemed directly intended to ruin visibility and turn the runway into a strip of rutted mud.

Even the knitting in Pat Petrucelli's fingers seemed to be growing with an underwater slowness, even for her. Nobody spoke. Watching her through half-shut eyes, Marty had a curious illusion of a watery gulf between them—as if, instead of being near enough to touch, she were so distant that he would have to float across a message in a bottle: *Dear Pat: I love you.* (Signed) *Marty.*

Even that would be better than saying nothing at all, or saying it, as usual, too late.

The water came ticking irregularly onto the floorboards. In a while, the operations officer thought, he would take down one of the canvas fire buckets and intercept the drip. He had been thinking the same thing at intervals all afternoon.

He turned back to the photographs he was cataloguing—a hobby which Harry Hartz, the C.O., had cannily turned into a duty by appointing Marty the squadron's Identification or ID man as well. At the desk, Harry was turning through his report forms, new regulations, copies of publicity releases Casner had turned in for approval and scrawled notes for letters he would dictate as soon as Perkins, Casner's assistant, felt like doing some typing. Although the black notebook in which Harry kept all this material was banded with adhesive tape on which had been inked CAP REGS—KEEP IN ORDER AND UP TO DATE, the papers inside the notebook were always in a scramble, and, judging by the glaze over Harry's eyes, he was not improving their order much now.

John Hammerkein, the bulky, slow-voiced communications officer, tweedled knobs in the far corner, under the bulletin board where the field's traffic pattern was posted. Occasionally he raised a voice but not often. After a while he turned and looked at the pot-bellied stove.

"Start a fire?" he said. It was indeed a little chilly, Marty noticed. But Harry simply growled:

"What, in July?"

The door to the hangar squalled and Al Strickland, the adjutant, came in and shut it with one heavy shoulder, wiping his hands on the thighs of his coveralls. "If I take that crate down any farther," he said to nobody, "I won't be able to tell it from a kiddy-car." He went out, and water slushed in the sink. After a while he came back and looked over Marty's shoulder.

Marty felt the tension gathering along his spine. It was going to begin again.

"Jeest," Al said, too loudly. "What's that, a flying blowtorch?"

"Close," Marty said. "It's the Coanda turbine jet that was shown in Paris around 1910. It never flew, but Coanda had the right idea."

"Picture worth a lot of money?"

"A quarter, maybe," Marty said edgily. "It's a print I got from a Frenchman who owns thousands of negatives. The negative might be worth money."

"That's one way to make a buck. Me, I'd rather fly."

"Turn blue."

Al went across to the raddled couch, sat down next to Pat, and closed his eyes. "He beats me, Pat," he said.

Pat smiled and said nothing, but Marty knew what the smile said.

There was no question but that Al usually knew exactly what to say in Pat's presence, though how he knew Marty could guess only vaguely. Perhaps the sensitivity was Pat's rather than Al's. Certainly, from all the sources of bitterness with which the Petrucellis' marriage had begun to bubble lately, she had chosen to draw upon the one which made the least emotional difference to her, the most difference to Marty—and the most opportunity for Al: Marty's steady refusal, possible only in a volunteer outfit like CAP, ever to leave the ground again.

It had amazed Marty to see how this one minor fragment, the smallest of all their failures to fit perfectly into one flesh and spirit, had been elaborated into a whole row of alternately tilted teeth, sharp enough to ripsaw their lives apart again. It had been of no interest in the beginning. It was then a curiosity, a quirk which had amused Pat because she had been an airline stewardess for years, having resigned only for the usual cause—marriage—and had flown as unconcernedly as she walked. Marty had been a high school chemistry teacher and a member of his Town Council when they had met; he was now a State Senator, with a considerable prospect of reaching Washington as a Congressman in the next off-year elections. This prospect had

been visible when they had married; Marty had remarked then that he would probably go to the capital in a sedan chair rather then entrust the people's representative to the air, and Pat had only grinned.

The other difficulties—the only real ones, it had seemed at the time—piled up much faster. A woman as vivid as Pat was a natural target in a town as small as Mechlin. To the women she looked too much like the girdle ads in *Mademoiselle*, especially in a small rural town which was unable to keep its occasional pretty girls home much after high school and married its men mostly to the dumpy, unresourceful residue.

About the men Marty had been much less worried. He had seen exactly the reaction he had expected when he had first taken Pat swimming in the river outside town, where she had emerged from the car as incredible as a page from an *Esquire* calendar in her white seersucker suit with its superfluous shoulder-straps. He had even felt a little sorry for the truck-farmers' sons who had bulged their onion eyes at her. You don't know it, he told them silently, but you're bragging when you goggle over the long-legged calendar girls; there's not a man in a hundred who can turn one into a woman, and your luck, if you got the chance, mightn't be any better than mine.

But the women were much tougher to cope with, because although they too saw the calendar girl as the symbol of wantonness, they would never have the opportunity to test the notion; they could only suspect, with a suspicion that would last as long as they lived.

Pat seldom complained of the suspicions of the Mechlin women, nor of the rigors of living in a rural county seat after a single life lived commuting between big cities across half a continent. Indeed, she seemed honestly in love with the Mechlin house and its four acres of deer-browse land. About her increasingly apparent insatiety—or Marty's increasingly apparent inability to satisfy her more than once in a dozen encounters—she never said anything and would allow nothing to be said; Marty suspected that she blamed

herself, for lately she had taken to faking satisfaction. But about flying she had become more and more vocal, as if this were the heart of the matter and contained all the rest, as if in this above all Marty had failed to be true, not to her, but to himself.

It had been in an attempt to placate the developing intensity of her contempt that he had joined the local CAP squadron—an easy enough course in any event for a man who loved planes—but that had only made it worse, putting Marty in more direct and visible relationship to the craft in which he was determined never to ride again. It also took Pat out of retirement and into flying, since she had joined the squadron with him —she was now cadet adjutant, in charge of the girls— and quickly thereafter won for herself a place in the community equivalent to the men in the fire brigade, or the women who ran the church suppers. Worst of all, it brought her into contact with Al Strickland—not only with his flamboyant, standardized acting of the role of flyboy, and his faint St. Louis accent, snake-swift wit, and chrysanthemum-blond poll, but as well with his contempt for any airman who would not fly, especially one who, unlike himself, claimed a combat record.

Marty looked at Pat, but she was watching her needles. Sooner or later, he thought; sooner or later.

Hammerkein was again nursing his assemblage of bottles, fire-crackers, knobs, and spaghetti. Voices muttered from the overhead speaker, sometimes sounding to Marty remarkably like a disgruntled bear.

"Tell me something, Pat," Al said. "Did the Great Historian over there give you his wings when he was romancing you—or a fine set of tintypes of hot-air balloons?"

Pat looked down and pulled another loop of yarn over the points of her needles.

"I lost a lot of wings that way," Al continued musingly. "Used to buy them by the gross."

"What's that about hot air?" Marty said, without meaning to.

"Pardon me, Marty-boy. I forgot I was in the pres-

ence of a stickler for accuracy. I really did lose one set of wings, legitimately. Maybe I gave away half a dozen. That suit you?"

"I have Marty's ribbons," Pat said, very softly.

"Nice," Al said. "No matter where a guy goes, if he has a chestful of ribbons, he can walk into any bar and get a glass of beer for ten cents."

Marty pushed his chair back.

"Can it," the C.O. said, turning over another paper.

Marty sat down again. Occasionally Harry Hartz could make a very C.O.-like noise. It was not much different from his Harry-Hartz noise, but the small difference made the difference.

Marty got up again, his cuticles itching.

"Look at the American Aeronautical Library—he's airborne, and on a day like this! Did you file a flight-plan, Marty-boy?"

"I said, *can it!*"

"I heard you," Marty said. "Just tell it to that misplaced decimal sitting next to my wife, will you, Harry?"

"Better check the distribution to make sure I'm supposed to get that order too, Harry," Al said, very softly indeed. "Maybe it's only supposed to go to heroes."

"Boy, I'm sick of you guys," Harry said. "Isn't it goddamn tough enough to be nailed down in this swamp? The next one of you that craps up the operations gets to be charge-of-quarters for the next week. Now dry up."

"Getting something, Harry," Hammerkein said.

"In this weather?"

"It's for us, from Group. Wait."

They waited. Hammerkein twitched delicately at the knobs of his receiver, which had once been a Coast Guard surplus set in a very bad state of mildew, at least on the panels. Now nobody but Hammerkein knew what it could be driven to do, and attempts to find out from Hammerkein had ended badly; when Marty had found him installing a new knob labelled "SYM" on the panel, Hammerkein had explained that it didn't do anything, it was just a fifth knob to go on the left side

because there were five on the right; the abbreviation stood for "Symmetry."

After a moment, Hammerkein cut the loudspeaker out of the circuit and put on earphones. At once he said: "It's a forest fire. Hold on." He switched over to his transmitter and pulled his mike to his chest, tenderly, his big hand almost swallowing it. "Squadron VII, Mercer County Group, Michigan Wing. I read you. . . . All right, I'll check with the C.O. It's a bad one, Harry. The rangers say they need a map, otherwise it'll spread before they can get fire-lines up. You know, it's been pretty dry up to this week."

Harry looked doubtfully out of the window. "Who's on the line?"

"Ranger station."

"Tell them we'll hand them a map in about an hour after we can get off the ground," the C.O. said. "Their fire can't make much headway in the rain, anyhow. Al, find Hank Pulaski. We want a cadet ground crew and shack complement, Hank can take over supply and he can appoint himself a cadet charge-of-quarters to help. Take the Primary Trainer out of tie-down, turn her over and check her out. Get Casner on the job and alert the assistant Public Information, what's-his-name, Perkins, he'll act as observer in the PT's student cockpit."

"Righto." Al unfolded himself and went out, grinning at Marty. Pat watched him go under her copper lashes.

"Hammerkein, you're to get weather reports to Boltzman as fast as you can pick 'em up; he'll post a map. I want to get us in the air as soon as this fog lifts a foot. Also, get the air-to-ground set in the PT tuned and ready to pick you up from the field. After that you can give Cass any help he needs in getting the publicity stuff out, but that's not to tie up any part of the rest of the operation. Got that?"

"I got it," Hammerkein said. He turned back to the mike. "Do our best. . . . All right, but stay out of our hair till you hear from us. . . . Hey, Harry, there's a bailout, too, or a crackup. Broken fuselage spotted by Lake Ihatchki, right in the middle of the fire, two hours

ago while it wasn't so soupy up there. Some damn fool poacher, maybe."

"For Christ's sake. Al? Al!" There was in indistinct, echo-muffled reply from the hangar. "Get Boltzman to make up flares and rig the PT. After that have him lend a hand putting the Bellanca back together. Get some of the kids to roll her out to the pond and put the pontoons on her."

"Pontoons?"

"That's right. Where the hell is Casner?"

The PIO, a slim, quiet man who always struck strangers as being shy, appeared in the hangar doorway directly in front of Harry. "I'm here, Harry, calm down." Casner crossed to the radio table and began to talk to Hammerkein in a low voice. Hammerkein's clown-red poll nodded earnestly. Marty could hear Al shouting out in the hangar, his voice magnified as usual by the mysteriously huge echo the small corrugated iron structure could produce if driven hard enough. Then Harry banged the door to and went back to his desk.

"Every year it's the same way," the C.O. said. "You can't keep these goddamned poachers on the ground. How did the guy get snagged in a fog *and* a forest fire on the same day? Venison ain't worth it. But at least we can get some air-rescue publicity out of it, can't we, Cass?"

"Easy. Dry up and let me get a PI flash out on the net."

"Harry!" Al's voice called from the hangar. "Give us . . . hand here, this damn plane's . . . and the cowling back on."

"All right," Harry yelled back. "Marty, I'll pilot the Bellanca, Al will take the PT. Better plot us a course just in case—it's outside our usual area up there. And get Hammerkein to file the flight plan with the CAA—hell, you know what to do." He pulled coveralls over his dress blues and went out, slamming the door absentmindedly. After a moment, the engine of the PT barked twice out on the field and then quit again.

Marty quickly swept the table clean of the photographs he had been working on, stacked them neatly and carefully, and returned them to their shoe-box, which he stowed under his chair. He got out maps, divider, protractor, straightedge, slide rule, paper, pens and pencils from the drawer and laid them out.

Casner passed the mike back to Hammerkein and made for the phone, where he began to woo the operator, and then, without any audible transition, the Associated Press. He had worked for AP some years ago, but that didn't matter; the PIO's manner toward any possible source of publicity was uniformly ardent. And with good reason: the appropriation out of which the CAP had to buy its heavy equipment depended directly upon the press scrapbooks of the previous year.

The shack quieted down rapidly, until nothing could be heard but a residual drip of water against the smooth, creamy sound of the PT's engine idling the plane against its chocks. Casner went out to scare up Perkins and brief him on what photos to take while he was aloft as Al's observer. After a while an elated-looking cadet came in with two insulated boxes from the cookshack, which turned out to contain a reasonable emergency dinner for Marty, Pat and Hammerkein—corned beef hash and eggs, canned green peas, poppy-seed kaiser rolls, bananas and coffee.

About nine o'clock Harry came in and picked up the charts from Marty. Immediately after that, the training plane roared and dwindled away. After the sound had died entirely, Marty could hear the Bellanca idling down on the pond, where Harry waited for Hammerkein to tell him that Al had spotted the wreck and that it was time to try for survivors.

It was a vaguely soothing noise. After supper Pat had leaned her head back and fallen quietly asleep, and Hammerkein, too, seemed to be drowsing over his mike. Out the window, a few stars were showing through.

It was nearly midnight when the hangar door opened and Ezra Childers came in. Marty looked at his watch,

wondering when the Bellanca had left; there was no sound from the pond now except that of frogs.

"You awake, Marty?" the squadron's chaplain said.

"More or less. Keep it quiet, Ez. My girl's asleep."

"Sure enough. It's you I want to talk to."

Ezra closed the hangar door quietly. It was a gift that he had; everyone else had to slam it to make it stick. He crossed the room and sat down beside Marty, looking once over toward Pat with a gentle, appreciative smile. Marty felt obscurely pleased. There wasn't a single claw of the predator anywhere about Ezra, but he had the ability to react warmly and naturally to what would be only the obvious to another man.

"Marty, I'm not trying to issue you a TS ticket or anything like that. But isn't there something we can do about this thing between you and Al?"

"There isn't any thing between me and Al," Marty said. "It's just the weather, that's all. Now that we're flying again, we'll all be too busy to squabble."

"I know that. But as soon as the weather clouds up, you'll both be at each other's throats all over. What's the matter?"

"I don't know," Marty said. "Or I hope I don't know. On the surface, Al rides me because I don't want to fly. If he has another reason, you should get it from him—or Pat."

"I'll try it," Ezra said. "Have you thought about flying again, Marty? Of course it's your business whether or not you want to. But if you were to go up again, you'd spike most of his guns."

"Maybe, maybe not. Anyhow, I'm not going to do any flying, Ez. I joined the CAP on that understanding. Everybody knows that."

"But you flew in the war."

"I sure did. As a matter of fact I think I've got more flying time than any man in this outfit. But I don't want to do any more of it. I've had it. Right now I shudder every time I lick an air-mail stamp, and any man who asks me about it will get the same answer, whether it's you or Al or whoever else it is."

Ezra started to speak and then tilted his head instead, listening. There was a low, quiet droning in the night outside; someone was aloft. Hammerkein, if he was really still awake, was listening to his inaudible earphones. Marty, listening as always to his secretly whispering self, looked over at Pat.

She had not stirred, but she was looking at him out of quiet green eyes. She had been listening, too.

"That sounds like the trainer," Ezra said. "That was fast work."

Marty got up and shook Hammerkein. The redhead came awake instantly.

"They coming back already?"

"Sounds like it. Better call them." Marty took Harry's police whistle out of the desk drawer and went out of the shack by the far door into the cool, quiet night. The droning was distinctly louder.

Marty blew the whistle, one short, one long, and then again. Lights began to come on around the field. Casner came pounding across the turf.

"Hello, Cass, where's Pulaski and the CQ?"

"On the way. The cadets are running flares out. I'll get the searchbeam going. Hammerkein raised them yet?"

"Probably. There'll be photos."

"The lab's ready." Casner went on inside. Marty could see the PT's riding lights now; then, the faint blue streak of the plane's exhaust. The plane had just begun to cross the field when the searchbeam came on, and then red railroad flares sputtered into life along the runway, streaming dense, lurid smoke. The sound of the plane deepened a little and went back the other way: Al was already making a landing pattern.

Suddenly the engine noise dropped out of existence and was replaced by a continuous sighing. The PT-19 appeared at the margin of the field like a ghost, its prop turning slowly enough to be visible, and settled into the lane of chemical red light. It touched the ground as firmly and definitely as a tricycle, without a bounce, and

the engine roared again, taking the plane to the other side of the field and around the U toward the operations shack. It braked beside the rail and the engine shut off; cadets ran toward it with chocks.

Al and Perkins, the assistant PIO, were already out of it, stretching and flexing their knees to get the feel of the ground back again. Marty went back into the shack.

"Harry's on his way back too," Hammerkein reported. "Didn't get the poacher or whatever he was. The fire's real bad there."

"Oh, hell," Casner said. "There goes a good air-rescue story. Well, I hope the pictures are decent."

"Why should it be as bad as all that?" Marty said. "The wreck was supposed to be in the center of the fire. It ought to be pretty well burned out down there by now. And the rain should have helped."

"Listen to the chairborne air force," Al's voice said behind him. The pilot came into the light, blinking. "It's hot as hell in the middle of that fire, whatever the books say. Around the wreck it looked as if even the ground was burning."

"That's a fact," said Perkins, surrendering the camera to Casner. "We made one low pass over it, and when I stuck my head over to point the camera, I could feel the heat on my face. Whoever was in that plane, he's a dead duck now."

Casner and Perkins left. Even with the two of them gone, the shack was crowded; the whole encampment was awake now. The sound of the Bellanca homing in on the pond was almost inaudible above the hubbub; Hammerkein was signaling frantically for less noise so that he could talk to Harry.

A jeep went bucketing across the field toward the pond. After a short while it came bounding back again. Through the window, Marty could see Harry and his cadet hit the ground running.

"Where are the photos?" Harry demanded the moment he was inside the door. "I won't believe it myself until I see them. Je-*sus!* Hammerkein, raise Group.

That's a major fire we've got out there. Al's in, isn't he?"

"He's in," Marty said. "He's putting the trainer in the hangar. Cass is working on the pictures now."

"Good. Jesus God, what a blaze. I never saw anything like it. I started to put the ship down on the lake and the next thing I knew the fabric was blistering. It makes no sense to me—forest fires don't burn hot in the center after they've been going half a day!"

"Al said the same thing," Boltzman said. "What's left to burn in there?"

"The tree-trunks, that's what. You know yourself that even a hot fire leaves the trunks behind. But not this one. Right smack in the middle of it, all the trunks are going like torches. We dropped flares anyhow, but we sure as hell didn't need 'em. Even the goddamned turf was burning in some places, and there was a cloud of steam over the lake you could lose yourself in for a week."

"Did you see the wreck?" Ezra asked.

"Sure, you couldn't miss it, with all that light shining off it."

"It wasn't burning?"

"No." Harry stopped to think. "Now that's funny. Why not?"

"Was it a big job?" the CQ chipped in. "Aluminum wouldn't burn."

"I don't think so. Looked like a Waco."

"See any wings?"

"No. Just the fuselage."

"Group alert," Hammerkein was saying into his mike. "Stand by for Group alert."

Casner followed Al into the shack with a dripping sponge and a thick handful of limp 8x10 prints. "Clear the desk, Harry," he said. "Here we go."

Harry swept the desk clean onto the floor, regulations and all. Casner swabbed the glass top with the sponge and began to peel the wet prints apart, smoothing them out onto the glass. "Here are your high-altitude shots," he said. "They're nice and clean, and for

once Perkins remembered to number them as he took them. Do you any good, Marty?"

Marty scanned the ranked, glistening pictures, then got his clip-board and began to sketch the boundaries of the fire onto the map. He worked rapidly and silently, while the rest of the squadron, or all of it that could now be crowded into the shack, quieted down and watched. Several times he made direct measurements on the pictures, and once he said in a remote voice: "Al, is this one flat-on?" Al made an angle with his hand in the air; Marty nodded, doodled a calculation into the margins of the map and resumed sketching.

At last he said: "There we are. That's a big fire, Harry."

"You're telling me. Hammerkein, you and Marty get the map coordinates and rate of spread out to the rangers right away. Cass, clean this up and let's see the pix of the wreck."

Casner was already snapping his prints off the drying glass top of the desk with aseptic, cruelly kind dispatch of a doctor removing adhesive tape from skin. Perkins ferried them out and came back with the close-ups of the wreck, which Casner had been storing in the bathroom sink under water; now he wet down the glass again and spread them out.

There was an unusual quiet in the shack. Even the cadets, who could usually be counted on to jammer like a pack of foxhounds at this stage of the game, were being seen and not heard.

"Marty, come look at this," Harry said. "What the hell kind of a plane is that?"

Marty left the radio and bent over the desk. The pictures leapt up at him.

Harry's description has been graphically just, as usual. Under Marty's eyes, the denuded trunks of tall pines burned like candle-wicks in the centers of immense feathers of flame, lighting a mist which seemed to be rising steadily from shot to shot. The two pictures which had been made by the light of flares showed nothing but a blankness with brighter glows in it—the

top of the mist, lit from below by the burning trunks. All the scenes were completely shadowless, as well as motionless—like a landscape on the Moon at high noon, crowded with burning spires of rock that would never change.

And in the midst of the still plumes of flame was the shining cylinder.

Because of the mist—steam, there was no doubt about that being boiled off from the near shore of Lake Ihatchki—and the smoke, none of the prints showed the entire wreck, but Marty could piece it together from the separate shots. It was no airplane that he knew. Despite the fact that the pictures showed nothing but a part of the body of the craft, and not even a trace of any other section, there was enough to be sure that the thing was—

It was not an airplane.

In the first place, there was no debris which might once have been wings or tail. There was nothing in the lines of the metal object to suggest that it had ever had either. It was just a cylinder, shining like metal, bluntly pointed at both ends. Also, it had no windshield, no ports, no apertures of any kind. It was simply a plump capsule of metal, smooth from one end to the other, and seemingly all of one piece, perhaps solid all the way through as well.

"Could you see it this well by eye, Harry?"

"Much better," Harry said. "It reflected like a mirror."

"I don't think it was all reflection," Al added slowly. "It was too even for that. I'd swear it was hot enough to glow by itself."

"Could those trees be part of a gasoline or oil fire?"

"Not a chance," Al said. "No laking and no smudge. You can see that for yourself."

"What are you getting at?" Boltzman, the weather officer, put in. "Is it a meteor, Marty?"

"No," Marty said, "it isn't. It's too regular. But it's not an airplane, either. And I think it started the fire. I think we'd better send out a general alert."

There was a brief, total silence.

"You'd damn well better do more than think," Harry said. "What've we got, Marty? A flying saucer or something?"

"I think it's a missile," Marty said. "I know every airplane in Janes', and I think I know silhouettes of every possible plane of this size since Farman. I also know what American guided missiles look like, or at least what the ones we've been told about look like. This isn't one of them. If this thing is ours, all the same, it's run wild and the Air Force ought to know about it before somebody sees it that shouldn't. If it isn't ours, then maybe we've got a chance to study something the Russians didn't mean to lose. Or maybe they sent it here on purpose—I don't know.

"But I'm sure as hell that the thing isn't any ordinary wreck. I think we'd better yell for help, Harry, and yell *fast*."

Al snorted and turned away from the desk. "Well," he said, "it's one way to get publicity for the chairborne flight we've got here. Marty, I hope you'll throw a crumb to the guy who *flew* this mission when you get this crud on the air." He twisted gracefully and his knees bent, turning him like a dancer toward the cushion next to Pat.

Marty's hand caught him by the scruff of his fur-collared flight jacket. "Up," Marty said. "Up, stateside soldier."

The jacket came free in Marty's hand, and something hard out of nowhere caromed off his jawbone. When his head cleared an instant later, Boltzman and two cadets had crowded Al down into the far corner of the couch, and Ezra was facing Marty, holding his elbows tightly against his diaphragm. It was a humiliating position, but Ezra was strong—even stronger than he looked.

"Can it!" Harry was roaring. "Can it!"

"Don't be a fool," Ezra said between his teeth. "That way you both lose."

"Let go."

"No."

"Can it! Goddamn it, what've we got here, a kindergarten? Al, get back to quarters. Let him up, you guys. What kind of an example is this for the cadets? Are you guys officers or just bar-room slobs? Marty, give Hammerkein your IDentity dope and get it out on the radio net. Everybody else, hit the sack. That's orders."

"You're sending out this horse manure about guided missiles?" Al said, shaking himself free of the hands that held him.

"Marty's our ID man. He says it's so. From there on the responsibility's mine. If anybody has any objections, he can come to me in the morning and put 'em through channels. Dis-*missed!*"

two

PAT WAS very quiet after they had bedded down in their tent. Marty would have liked to have known what she was thinking—and then again, in a way, he would not, for he thought he already knew. In any event she said nothing, and after a while he heard the regular breathing which meant that she was asleep. That left him nothing to hear but his own thoughts.

There would probably never have been such a thing as radio, he reflected glumly, except for the need to jam the broadcast of the mind. There would never have been any books, either, or any minstrels in the courts of kings. Luckily for novelists, publishers and makers of soap, keeping memory in its place requires almost the total resources of a civilization. To keep only one man's memory down, nothing less than Perry Como, color television, WEEK, Inc., the Beethoven Lydian Quartet,

regular Papal encyclicals, and a comic strip called "Dotty Dripple" will even begin to serve. Sometimes, for that matter, neither Dr. Kinsey nor a covey of sputniks can distract one single man from the constant dredging of his own past which is reported in the auditorium of his skull, the prosecutions of persons who—because in the years now gone they bore his identical name—make him guilty by association with their guilts. To drown out that internal voice, people who love planes will stand next to a jet engine on the ground, although that noise is loud enough to seal the capsule of the inner ear and destroy lung tissue in tuberculous patches; but even that is not enough.

No noise is that loud; the whispering always comes back. Marty listened to it.

It had begun with chewing gum. Marty could still see the small store where he had spent his pennies for gum cards (never mind the gum), only a few blocks away from the backyard shack where he had spent his first play-years. The shack had been behind the stacked back porches of the Chicago apartment-house whose basement furnace his dying father—and inevitably, after only a few years, his mother—had tended while he was in school. The cards had given him his first pictures of flying: not free flight, which was what he had dreamed about when he was younger, but the next best thing, flight in planes. There on the cards they all were: the coffin-nosed Fokker D-7, the Pfalz with its sharklike, conical prop-cap, the monstrous invincible Gotha, the two-seater Bristol fighter-bomber, the Fokker D-9 triplane, the Spad, the DeHaviland with its shoddily-built automobile engine spitting castor oil in the pilot's face. . . . The cards were in only three colors and the colors were badly registered, but it had been the planes that had counted.

And the heroes: Rene Fonck flying the first Nieuport to mount a dangerous cannon in its hollow propellor-shaft; von Richtofen taking up the Fokker D-8, the "wireless" scout with its wings supported only by two faired struts; Frank Luther, the balloon-buster, going

down after a few short weeks in flames; Rickenbacker, ace of aces . . . the emperors of chewing gum, to be traded, collected, bought, hoarded, reviewed at night card by card, and brought forward in the morning phalanx by phalanx to take one small boy out of an alley shack into the air—to fly, to fly!

Those had been the heydays of the air-war pulp magazines, too: *War Birds, Flying Aces, Wings, G-8 and His Battle Aces* and a dozen others; Marty had never found his saturation point for them. From them he learned, with surprisingly few inaccuracies, the names and appearances of virtually every plane involved in World War I and the names of most of the pilots of the time. One of these gave him a shock, for one of America's rather low-ranking aces—he had downed six enemy planes—turned out to be an acquaintance of Marty's dead father, a man Marty himself had seen five or six times at the shack. He did not call at the new apartment until some years after Marty's father's death, but then, charged with being the same man as the hero in the magazine, he admitted it. "Admitted," to Marty's puzzlement, was the only word that honestly described his manner.

After that nothing could shake Marty's faith in the magazines. When one of them published an anniversary issue on slick paper, devoted partly to authentic photographs of World War I in the air, he had it bound. The binding was a bad job even for the small sum Marty had been able to save for it, but he still had the resulting book. Saving the money had been difficult, for at the time there were 34 such magazines appearing every two months, and Marty bought all of them, read all of them, saved all of them, wrote letters to all of them. During the months of his only major illness he had insisted that the diet continue uninterrupted, and the gory yarns had been read to him by his great-aunt, who substituted harmless words for the occasional curses with interesting results: *The lead came whipping in around his shoulders, and the instrument panel burst before his eyes. A spray of scalding oil came back at*

him over the windshield. "Scissors!" he gritted, clawing at his goggles. However, out of ignorance she read the occasional German curse-words throughout with painful phonetic fidelity.

The minor ace sat with Marty for a while during his sickness, seemingly learning very gradually to be gratified at the boy's interest, but still with that air of failing to understand why. Perhaps, having flown in the same air with men like Fonck and Richthofen, who had counted their kills by scores, he had never thought of six German fighters and a couple of helpless observation balloons as being much of a record—this, at least, had been Marty's guess, and he had once tried to explain, with elaborate precautions against being interpreted as talking about any particular *person*, that since the Americans really only were in the war a very short time, the records of their aces during that one year should be multiplied by the number of years the war had gone on for the other nations, in order to provide a fair basis of comparison with the records of the French, British and German aces. He saw at once that the idea was totally unwelcome.

"Did you ever get in on one of those Christmas dinners?"

"Christmas dinners? We were only there one Christmas, except for the Lafayette Escadrille."

"I mean where all the members of the German squadron would come over and land Christmas day and you'd all have dinner together before you went back to fighting each other."

"Oh, I guess that happened once or twice. Not in my time. By the time we got over, nobody was playing games any more. Maybe in the early days. I heard that the Boche dropped a wreath for Luther when they finally got him, but I never could find anybody who'd seen it happen—never got the story any way but third hand. Nothing like that ever happened while I was there. You shot at them, they shot at you, and that was it. They were flying in circuses by then—no gentlemanly stuff about that, just get the most planes in the

air that they could and mob you. Didn't work very well, but not because they didn't want it to."

'The Boche.' It was an echo. Marty cherished it.

"Why didn't it?"

"Well, because you couldn't hardly push the trigger without hitting something when you were that badly outnumbered. And the planes in the circuses were all kinds of models, some of them good, some of them way out of date. I remember seeing a D-7 in one of those shows come out of a tight turn in a dogfight and shoot a D-3 right into bits because it couldn't get out of his way fast enough. I don't think he meant to hit it at all, he was just running a faster plane and thinking faster than the guy in the D-3. You have to think at the same rate that the plane does."

"Did you ever see Richthofen?"

"Once. You couldn't miss that red-and-white checkered Fokker tripe he flew. God but those things could climb. Nothing today, of course, but in those days we'd never seen a plane stand right on its tail and grab sky."

"Did you fight with him?"

"No, thank God. Eddie tangled with him a couple of times and came home looking like a Swiss cheese—and Eddie was *good.*"

"But didn't you *try?*"

"Yeah, I tried. I don't guess I tried very hard, though. That youngster that finally did get him did it on pure luck. Didn't you know that? Well, hell, I'm sorry, but it's true. He'd been hit already and the kid just pigeoned him. If you're looking for romance and all that, I can tell you that everybody on our side hated that kid's guts. Not that the Kraut hadn't killed many a sick pigeon himself."

"Could Fonck have gotten him in a fair fight?"

"Fonck? Maybe he could have done it on firepower. In those days a one-pounder cannon was heavy stuff. I don't know. Those boys were good. After all, they won."

"They *didn't.*"

"Oh, not the whole war. But in the air they were al-

ways ahead. Hell, Marty, I don't see why you pump me about this stuff; it's all dead and gone now. But it's true; if it'd all depended on the fighting in the air they'd have taken us all hands down. They developed new planes faster, they got 'em in the air faster, they had crack pilots, and they trimmed the pants off us. Well, I'm sorry, but it's so. I saw it happen."

It wasn't like that in the magazines. But it was authentic, and it was planes. And it was more than his father had ever been able to give him while the old man had been alive. Maybe the ex-ace had felt it too; at least, he came around more often even after Marty was mending, and once or twice he had brought with him some dusty token which he himself had evidently not had out of its shoebox for ten years: a handle from a Bass Ale spigot pull which, he said, he had gotten in London and had later used as a knob for the throttle of his plane; a dirty brass-bound alcohol compass in its original leather belt-case; and finally, gift of all magnificent gifts, his corroded silver wings.

Marty's great-aunt had approved, his mother had not; something in the tales the great-aunt had read seemed to have unstopped a bloodthirsty vein in her diminished, dehydrated body, where Marty's mother said that so much talk about war was bad for the boy. Nevertheless, Marty prospered, and so, in a sense, did the ex-ace: his manner when he gave the convalescent youngster the wings was peculiarly expectant, as though he were handing a lump of lead to an alchemist. Marty knew better than to wear the wings, but he carried them to school in his trousers pocket, and sometimes he felt a strange sensation down there next to his thigh, as though the wings were stirring. He dreamed of flight more and more often and awoke to wonder why he seemed at the same time to find himself carried back to his babyhood.

Perhaps the ex-ace, having come to know Marty only as a flying youngster immobilized in bed by a protracted illness, forgot to connect him with the silent, active shadow he had caught sight of on his few earlier visits

to the Petrucellis' flat; or perhaps he had, bewilderingly, begun to think of himself as Marty's father and of the house as his house; almost certainly he had been a lonely man, and perhaps Marty had never had any reason to think of him, as a man at all, but only as a dim archetype, crossing the tarmac in France toward his everready Spad with its heavy-trimmed nose, ready to take off into that steep climb which was Marty's dependable road to sleep.

Whatever the reason, the man was already there when Marty came home after school that afternoon and walked into his mother's bedroom, to report that he needed a costume for a school play; he had the role of the Cat in Maeterlinck's *Bluebird*. Both of them had sat bolt upright at once, their arms dancing jointlessly, like two pink marionettes.

For a while after his mother's mule had hit the doorframe beside him, he had been unable to do anything but stand where he had retreated, in the bathroom behind the locked door, and blow his nose repeatedly upon mile after scratchy mile of toilet paper, unable to connect the impact of the shoe beside his ear with the small demand he had made on her time. All he needed was a union suit dyed black, some ears, a tail. They hadn't even given him the chance to say what he had come carefully prepared to say. They had simply told him to get out.

He did not know what to do. He did not at all know what to do. The thing about the costume could be glossed over somehow, he had not really much wanted the role, if that was what was the matter.

But . . .

After a while he discovered that he was washed out. Even the phrase came from the air-war magazines. Now he knew something about it. He opened the bathroom door cautiously. Nothing could be heard in the rest of the house.

He went back to his room, and touched all the magazines. There were too many of them. Maybe the book with the real photographs in it was enough. But he

could not bring himself to take down the magazines and decide which of them could be jettisoned. He sat on the bed and thought, occasionally testing to see whether or not there were any tears left. There were one or two, but they didn't seem to amount to much.

Finally, he got up, went to the closet, and got down the shoebox from the top shelf. In here were all the gum cards, years and years of them. They were blurrily printed and most of them were inaccurate and stank of peppermint, like the stick-candy the doctor had brought him. The odor came out at him like steam, the moment he lifted the lid.

He looked down at the packed, neatly catalogued cards for a while. Then, one by one, he began to tear them up.

It became morning very quickly, and with the sun the waves of heat came rolling across the field, burning off the brief mists and setting the heat-devils to flickering again above the hard-packed runway. On certain days when the sun was at just the proper angle, you could stand at one end of the runway and see a sheet of pale blue sky overlaying the other end, exactly as though the pond had flooded; it was a perfect example of a mirage for Hank Pulaski's meteorology classes.

That shimmering lake was just beginning to form when the first of the planes from Group arrived, the sound of its engine waking Marty immediately. He rolled out and went to the tent flaps to watch the red and yellow Piper Vagabond come skimming in; then he buttoned the tent flaps together carefully and padded back to Pat.

"Hey, Pat. It's coming up on ten hundred."

"It is?" She struggled to get her left arm out from under the sheet to look at her watch. "Damn. And I'm supposed to take three of the girls for an operator-third-class lesson with Hammerkein."

"Hammerkein needs to be chaperoned about as much as Josiah's horse. Anyhow the routine's probably all off for today. A ship just came in from Group, and I think

I hear another one now. Let's grab breakfast and get over to the shack."

"All right," Pat said. She seemed very withdrawn.

The planes from Group, and later from Wing, continued to come in; there were eight of them by afternoon, and they were followed by half-a-dozen radio-equipped jeeps. Most of the planes promptly went out again to look at the fire, but by this time Marty was knee-high in paperwork. Nevertheless, he seemed to find ample time to think, and none of his thoughts were pleasant.

The return of the little fleet from the fire cut his intermittent brooding short. Even from the fence, Marty could see that Harry and the men from Wing were at once excited and grave. They came pounding into the shack with the expressions of men who suspected that for once the squadron had something hot on its hands.

"Marty, we've got a lot of new photos here. We're going to need a detailed map of that whole area. Not vectors this time, but topography. That thing is still there, and the fire's much worse."

"Any better idea what the thing is, Harry?"

"No. Too smoky to tell by eye. But we took some Aero Infra-Reds too; they ought to help. The Air Force planes were still there when we left—they'll be landing here later with special gadgets, and three or four big-wigs they're flying in. Hey, guess which big-wig in particular."

"For God's sake, Harry, this is no game. That missile might have an H-bomb in it—and we're well inside the total-destruction range if it does."

The C.O. turned pale. "Jesus, I never thought of that. No wonder he's coming. It's Commissioner Holm."

"Christian Holm? The AEC man?" Cold mouse-feet began to run up Marty's spine.

"That's him. He was in Chicago making some speech or other, when your alert hit AF headquarters. They got it to him right away. Oh Jesus, that reminds me. Cass!"

"Here, Harry."

"Kill that PI flash from here out. Holm's orders."

"I can't kill it now," Cass said. "That'd smell fishy as hell to the press boys. Look, suppose I just down-pedal the 'wreck'—say it's thought to be an old one, maybe, and then forget to mention it after that? That way, I could play the story as a straight forest fire and lose the rescue angle. Nobody'd be the wiser."

"Any way you think'll work. You're the PIO, not me. Start now."

The first jeep came rolling back down the road toward the field; overhead, however, a round burring roar suddenly belled up from beneath the limits of audibility and began to make the whole sky ring. Everyone looked out.

"A C-47," Harry said. "That'd be Holm. I just hope our runway can take it."

"Harry," Hammerkein said from the radio. "Listen to this. I just picked up a general order from the net, all Air Force, commercial and private traffic. The CAA's just declared the whole Lake Ihatchki region a prohibited area, and the rest of the county a danger area."

"What the hell?" Harry said plaintively. "How are we going to do any flying over it if they do that?"

"We're still on assignment," Marty pointed out.

"That's just part of it," Hammerkein said. "Civil Defense is ordering it evacuated."

Harry was slowly turning red. "All of it?" he squeaked. "Us, too? Jesus, this is going to ruin the squadron—we'll have the parents of all those cadets on our necks in nothing flat—"

"No, listen, Harry. That's the funny part of it. The area they're evacuating is only a strip about a mile wide. Runs from the center of the fire, over along this way." Hammerkein's blunt finger made a straight path on the map from Lake Ihatchki to the county line.

"Downwind from the wreck, as the wind blows now." Harry said. He turned to stare at Cass, and then at Marty. "Now what the hell does that mean?"

"I don't know, Harry," Marty said. "I only wish I did."

And then that day too was over; curiously little seemed to have been accomplished. Once more Pat sank into silence in the darkness of their tent. Her breathing became more even.

Then, suddenly, she said out of nowhere:

"Marty?"

"Yes. What is it?"

"What do you make of all this? Why would anyone want to bomb us here—even the Russians?"

"There could be a lot of reasons. If it's a dirty bomb, it wouldn't matter too much where it landed. They'd be interested in the fall-out downwind of it, not the spot where it hit. Or they could have been aiming at Detroit. If it came over the Pole, an error of just a few seconds of arc would have dropped it here instead. Or hitting a stiff arctic storm after re-entry."

A match scratched and flared. In the brief glow as she lit her cigarette, he could see that she was sitting up on the cot, her bare legs crossed tailor-fashion under one of Marty's shirt-sleeved nainsook pajama-tops, her free hand resting on her ankles.

"Then you think it's—an H-bomb or something like that," she said, blowing out the match. The darkness was blacker than ever. "Wouldn't it have gone off right away?"

"It could be a dud. It could be anything. One thing's for sure: it came a long way and it was going fast—escape velocity or better—or it wouldn't have been so hot when it hit. What stops me is why it didn't make an impact crater, going at that clip. It should have buried itself, even if it didn't blow up."

The coal of the cigarette glowed and subsided. "I see," she said in a neutral voice.

"I don't know, Pat," he said carefully. "If it'll help any, nobody would start a war these days with just one bomb. I don't think we've even come close to guessing what that 'wreck' is yet. I don't think it's an attack. It's a fluke—or a what-is-it. That's all we know."

As a reassurance, that was anything but good enough,

Marty knew; it didn't even convince him. But there was nothing else he could say.

He knew more than well enough the nature of the weapons in his own country's hands and assumed automatically that no counter-espionage system could prevent the enemy from knowing at least twice as much as he knew. That one missile could destroy a city, and with cobalt sheathing could poison thousands of additional square miles for five or more years—those were of course the facts you had to begin with. Nothing in his experience, not even warfare was that total. But he doubted any nation would annihiliate an area it wanted badly enough to make war over it, or poison a territory it would later have to occupy and administer. That lesson, he thought, had been learned in Germany and Italy, where the enormous devastation caused by the "unconditional surrender" policy was still being paid for by the victors.

And, he thought, there are times when even a sitting duck gets a break. . . .

Instantly he was back in 1943, back in the B-17 again, listening to its one functioning engine pop and sputter, sounding remarkably like the normal operating noise of one of the CAP putt-putts. The other three engines had been knocked out by flak over Dresden, and only fast work at the throttles, plus the automatic response of the pitch gearboxes in feathering the idle props, had prevented them from bursting into flame. The bomber had long ago fallen far behind the rest of the flight and by the time the other planes had vanished was losing altitude steadily over occupied France.

They had kept the plane aloft by jettisoning half its gas and all the dismountable unnecessary equipment, including the bombsight, but even so the lightened plane refused to rise above three thousand feet. It seemed impossible that they could get it over the northern Pyrenees to the Bay of Biscay. Except for a landing and internment, the only course Marty had been able to plan required flying through one of the mountain range's few and difficult passes.

Then the Me-104 had come dropping out of the sun toward them. At first the Messerschmidt pilot seemed undecided; he circled the crippled bomber warily, perhaps waiting for it to fire on him. Finally the German cut sharply in toward them and opened up.

For half an hour the bomber's captain kept them floundering onward, without power enough even to dodge—the least sudden swerve would have taken the ship into a flat spin from which it would never have pulled out. The rest of the crew huddled clutching their guns, swearing and weeping with furious impotence, while the German slugs poured all through the ship on each of the Me-104's passes like gusts of spring rain. The Luftwaffe pilot was shooting mainly at the remaining engine; but Marty could still feel the single convulsive shudder twist the radio operator at whose back he had been crouching. . . .

Then the shooting stopped, and when the time for the next pass came around, failed to start again. The Me-104 had run out of ammunition, and the ragged bomber still flew. Then the German had tried to buzz the plane, but the altitude was too low to make that a safe sport. After a while the fighter swung away and left.

The B-17 responded very sluggishly to its controls, and all during the flight through the narrow, infractuous valley the torque of the off-center engine kept trying to pull them around into the rock walls. On the heights of the mountains bounding the pass there were German anti-aircraft gunner's nests; the gunners had the novel opportunity to shoot their weapons *down* at a plane. Again, there was nothing that could be done about that but keep flying.

And, with all of this, the B-17 nevertheless got back to England, with only one of her crew killed and one wounded. The plane itself had quite literally fallen into bits as soon as its tires had bumped the tarmac, but Marty had come out of it with nothing more than a few scratches. None of them had had a chance from Dresden on—but they had made it anyhow.

"Marty?"

"Um?"

"Don't you have anything more to say than that?"

But what could he say? This was no time for heroic reminiscences of the Great War. He was not even sure what relevance the memory had.

"I wish I did," he said. "But we don't know enough about it yet."

"That's not what I meant. All right. Good night."

"Good night."

The cigarette went out. The humid air was more charged than ever with dread, and with unfulfilled desire, and with unspoken words. But what could he have said?

Only that no catastrophe is total. People survived. It was impossible to anticipate it, or to explain it afterwards. But they survived.

Some of them, depending on the catastrophe.

And that was not enough.

three

HOLM HAD worked fast, but he found time to wonder why, if the thing had indeed come over the Pole, it had not been spotted by one or a number of the radomes along the D. E. W. line—that, after all, was what the multi-million dollar Distant Early Warning system was for. And how had it managed to get over Michigan without creating a scramble at the interceptor base at Lansing?

The answer, when it finally came in, was far from reassuring. There was no record of any such object at any station along the D. E. W. line. A possible trace on Lansing records might have been the object, or it might

have been a meteor; while it had been in radar sight, it had been moving at least eight miles a second. There *had* been a scramble but it had been called back as "fail-safe," simply because the object obviously was going to strike long before Lansing could have gotten a single plane in the air; the natural conclusion was that it *was* a meteor; missiles do not move at 8 mps. even on re-entry. But the Air Force photographs of the grounded object showed just as plainly that it was anything but a meteor.

He had a brief, sharp tussle over the phone with General Egl, the "principal officer" of the Atomic Energy Commission and thus technically Holm's boss; but he got the necessary authority to deal with the situation on the spot from the Department of Defense, which put at his disposal Major Mendes, the Air Force liaison officer for the CAP group involved, and a company of engineers. Holm promptly ordered the company into the woods to build a truck road to the object, lay down a metal-mesh landing strip and throw up Jamesway huts to serve as field laboratories. He took great care to send with the company a staff of five radiologists from the Chicago AEC office, but all the same he was gloomily sure that somebody was going to get burned before the job was done.

He received the final seal of his authority to handle the problem by courier from Washington, just as he was about to leave for the CAP field himself. It came in the form of a huge, multicolored map of the affected area, freshly printed by the U. S. Coast and Geodetic Survey; he could smell the fresh ink as he unfolded it. It was labeled "Atomic Airspace Reservation," and showed a large "Prohibited" area cross-hatched in red, surrounded by a still larger "Danger Area" which fanned out toward the east—the way the weather usually moved. Included was the printed text of an Executive Order dated today:

"By virtue of and pursuant to the authority vested in me by section 4 of the Air Commerce Act of 1926 (44 Stat. 570), the airspace above the following-de-

scribed portion of the United States is hereby reserved and set apart for national defense and governmental purposes as airspace reservation within which no person shall navigate an aircraft except by authority of the United States Atomic Energy Commission. Any person navigating an aircraft within this airspace reservation in violation of the provisions of this order will be subject to the penalties prescribed in the Civil Aeronautics Act of 1938 (52 Stat. 973), as amended."

The signature was that of the President of the United States.

That wrapped it up. The object in Merger County was now Christian Holm's headache.

Harry Hartz had been wrong about the C-47; apparently it was on its way north, though Marty knew of no airstrip which would take the big craft, anywhere in the vicinity of the fire. Holm himself—he arrived half an hour later in a sleek twin-engined Piper Apache —explained what was afoot.

"We laid out a mesh strip up there, and we're flying in the rest of what we need," he said, unfolding a huge map onto Harry's battered desk. "We don't know what we're going to have to do about this thing, but we're prepared for just about anything. Lieutenant Petrucelli, if you'll put this up on your bulletin board, we'll get to work."

Marty nodded and put up the map. Harry stared at the signature.

"This looks like big medicine," he said, rubbing his chin reflectively. He hadn't shaved, and evidently felt uncomfortable about it.

"We don't want to take chances," Holm said. "The thing is radioactive, after all."

"I was afraid of that," Marty said grimly. "So it *is* a bomb."

Holm shot him a quick, piercing look. The Commissioner's expression was extremely guarded; about all that could be told from it was that he was soddenly, chronically tired; but his dark, circled eyes were quick and gave the impression of penetrating the solidest ob-

jects as thoroughly as the invisible radiations which were in his official charge. Physically he was a small man, with black hair salted with gray, and bird-boned, never-still hands, and yet the responsibility he carried did not dwarf him. It only made him seem taciturn even when he was being in reality quite voluble, as though no matter how much he said he could never get out more than a minute fraction of what he knew to be true.

"I wouldn't be that definite," he said. "Naturally we thought of that, but we shouldn't be in a hurry to make up our minds. Lieutenant Petrucelli, weren't you in Washington in '54 before the old Manion Commission on States' Rights? I seem to remember you."

"Good Lord," Marty said. "I was there, sure—so were about two hundred other state senators. Do you remember all of them? I don't remember seeing *you*."

"Many of them. My staff screened everybody at that conference. The day may yet come when the AEC'll be turning some of its authority over to the states; we wanted to know the men the states thought could handle the job of State Atomic Energy Commissioner. But I remember you particularly because my people rated you high; you seemed to know as much about my subject as anybody there. Were you one of the men who flew over this—object?"

"No," Marty said, grateful for the sudden change of subject. "Harry did, and so did some of the other boys —we can give you a list."

"Get that list for me right away. I want blood tests on everybody that was over that spot. I don't suppose anybody was dangerously exposed, but the radiation is intense—the thing is a beta-minus emitter at about 0.3 million electronvolts, and it puts out gamma rays about equivalent to what you'd get from a three-million-volt X-ray machine."

Casner whistled. "I thought those photos looked kind of fogged," he said.

"We thought so too," Holm said. "And now we know why. Captain Hartz, you and the other men affected get

over to the hospital tent right now. Our medics are all set to run tests."

"Yes, *sir*," Harry said. Except for Pat, Marty, Hammerkein and the Commissioner, the operations shack was empty less than a minute later. Through the window, Holm watched the men trot across the field with an expression Marty thought might be sardonic.

"Hard radiation scares the living hell out of everybody," Holm said abruptly. "Including me. You can't feel it, you can't see it, and all the time it can be killing you dead where you stand."

"Commissioner, if the thing is as hot as all that, isn't it going to be tough to approach?"

"Tough? Impossible. And the surface temperature doesn't seem to be declining any, either. The Air Force boys laid thermocouples on it: it's maintaining a steady two thousand degrees Fahrenheit. That's as hot as the inside of a blast furnace. No wonder it started a forest fire."

He walked from the window to the map and stood with his back to them for a long minute. Abruptly, and without understanding where the impression came from, Marty realized that the man was almost intolerably lonely. If Holm had really reviewed all the delegates to that 1954 conference, he had found precious little understanding of atomic energy or of the Commission among them, that was certain; and probably his records on Congress didn't show a much better picture. It would be murder, even for an insensitive man, to be charged with a crushingly responsible job understood by almost nobody; and Holm did not seem insensitive—indeed, an exquisite sensitivity would necessarily be one of the prime prerequisites for the job.

Pat seemed to feel it, too. She took a step toward Marty, but the movement was quickly aborted, as though she had realized that any reassurance she could feel from contact with her husband would not be worth two more steps. You don't, Marty thought, have to be a high government official to know what loneliness is.

"This is a very nasty problem," Holm said in a low

voice. He seemed almost to be talking to himself. "We've got to fight that fire, but we're going to have to fight it in radiation suits. Every speck of soot, every flake of fly-ash, every particle of smoke is contaminated. Marty?"

"Yes, sir."

"You might as well call me Chris; you'll be seeing a hell of a lot more of me than you'll probably enjoy in the next few weeks. You've got a weather man in your squadron, haven't you?"

"Yes, sure. Do you want him?"

"Not right away. In a few minutes. It just finished raining here?"

Marty nodded. "Hard. It lasted for three days."

"Good, then we probably won't have another for a while. That's the biggest damn nightmare of all." Holm turned away from the map and came back to the desk. "There's already considerable fall-out, downwind of the object. If a rain should wash that smoke-pall down in a populated area—well, you remember what happened to those Japanese fishermen in the 1954 fusion-bomb tests."

He sat down and began to shuffle through Harry's photographs. One of them arrested him almost immediately; he stared at it, frowning. He seemed instantly to have forgotten there was anyone else in the room.

Marty cleared his throat. "Chris, I gather you don't think it's a bomb. What is it, then?"

Holm looked up and placed the tips of his fingers together. "Do you two *want* me to talk to you?" he said. "You'd better understand that I'm not supposed to, and that whatever I tell you is going to be a burden to you. I don't think you have any idea what knowing a secret involves these days."

"I can guess. You can tell me to mind my own business any time. But naturally I'm curious."

"Then no, I don't think it's a bomb. Radiologically it's too hot; it's obviously unshielded, and I don't see how anybody could assemble and service such a weapon. Also I don't know any reason why a bomb should

be *thermally* hot. The fact that the temperature isn't declining indicates that there's a continuous reaction going on inside—in other words, if the thing is nuclear in nature, then it's already at critical mass and working at the level it's supposed to work. When you bring a bomb to critical mass—it goes off." He had ticked off these points on two fingers; he bent down a third. "Also, it's either too big for a bomb or it's not big enough. If it's *only* a bomb, it's too big. If it's a bomb *cum* propulsion apparatus—that is, a missile with a warhead—it's too small. The fact that its radiating the way it does indicates that it couldn't possibly have been carried here and dropped—it would have killed the bomber crew long before they could have gotten it here."

"Remote control?" Pat suggested.

"I don't think so. Either radio r-c apparatus or a computer would have been put out of action in a hurry by all that ionization. No, the thing is either a missile or a projectile. But in that case, why is it so small? Its whole inside would be taken up by its engines, leaving no room whatever for a warhead." A fourth finger doubled over, but Holm did not speak immediately; he seemed to be thinking. Finally he said: "Come over here, you two."

They bent over the desk, and Holm put the photograph down where they could see it. "You may have noticed this before, Marty," he said. "They tell me you made the original map from these photos. Tell me what you see here that's unusual."

"The object, whatever it is."

"Besides the object."

Marty frowned. After a moment he pointed hesitantly to a dark streak, which led from the object to the boiling, misted shore of Lake Ihatchki. "Is that what you mean?"

"Yes. Notice that it's on a line with the long axis of the object. It doesn't extend beyond the object, either. And look how the light seems to strike on either side of that streak, as if the ground were higher there."

"It looks ploughed," Pat said.

"Precisely. It *was* ploughed. That thing obviously has a small sharp keel of some sort hidden underneath. It wouldn't need it during flight, so I suppose it's actually a sort of centerboard which drops for just this purpose —to arrest it when it touches down. Like brakes." His piercing eyes impaled Marty. "What does that tell you?"

"Well—of course it's the landing track the thing tore. Let's see. It means first of all that it came in almost horizontally, like a plane landing—it didn't fall straight down to where it is, as a bomb or a missile would."

"Right," Holm said. "Go on."

"It came in pretty slowly," Marty said. "Didn't knock down any trees but the ones that were right in its path. And it didn't make an impact crater—I remember noticing that before. So it was making a maximum of two hundred, probably less."

"Right."

"There's more? I'm sorry, I just hit the end of the line."

"All right. Marty, what kind of a thing would stop itself by digging a trench? Remember, that's how it's *supposed* to stop itself. That's the way it was designed. What would happen if you tried to stop a plane that way?"

"It'd nose over. Ah. I see now. It's heavy."

"It is indeed," Holm said. "And considering its size, it must be terrifically dense—for all we know, it could be solid, metallic uranium. Now there's still something else. You said it was going at no more than two hundred when it came in. What's the top weight you can keep in the air at that speed, *by speed alone?* Because you can see that it hasn't any airfoil surfaces."

The words began to sound loaded and dreadful even before Marty had followed them all the way through. It was nothing in the way Holm was speaking; his light tenor voice was as neutral as always, as if he no longer knew anything in the world grave enough to deserve extra stress. The dread was in the content of the words, not in their tone.

"I couldn't give you the top weight offhand," Marty said quietly. "But it's only a fraction of what that thing must weigh. So something else was holding it up when it landed. *It came in under power. Controlled power.*"

"That's right," Holm said. "It's remarkable what a streak on a piece of paper can tell you, isn't it?" He covered the photograph carefully with another. "Just to start with, it tells us that we're probably going to need at least two expert linguists, and all the communications engineers Bell will lend us. I know Davis at the Oriental Institute in Chicago, and Kovorsky is at Notre Dame. We can get them both here today."

"I don't understand," Pat said. "Why do you need linguists?"

Holm looked up at her. "I hope I won't need them," he said. "But I'm not banking on it. You see, Pat, what we have up north is a spaceship. It can't be anything else."

She looked incredulous and faintly offended.

"A *space*ship?"

"Yes. We knew it would happen some day; now the day is here. That's why I'm praying that I won't need Davis and Kovorsky. If there's anything inside that ship, it's something that can live at a temperature of 2000° in a bath of hard radiation that would kill any form of life we know about. And something that can stand at least fifty G's of deceleration—"

"How do you figure that?" Marty said.

"Measure the length of the landing track, figuring that the ship was making two hundred miles an hour when it touched down and came to rest where we see it. Obviously the thing decelerated logarithmically—at a rate that would mash a man into bloody custard. And that's the way it's designed to land; so fifty G's is a matter of total indifference to the designers. Isn't it?"

"To the designers, no. Only to the design. Possibly there's nobody inside it at all—just machinery that can take deceleration of that kind."

"Possibly," Holm said. "But if the designers didn't mind working with a ship that's hot in both senses, they

probably didn't have to worry much about mechanical injury either. That's why I think the thing has a pilot—and why I hope I won't need any linguists. I hope that if there's anything inside that ship—it's dead."

There was a sputtering blast of sound outside as a PT belonging to Group caught and began to warm up. The sound of an airplane engine had once seemed to Marty to be the purest song of power anyone would ever hear. Now, it sounded halting and rickety. (*The shining, compact, fantastically dense ovoid of the spaceship was swelling in the high blue air, plummeting toward the forest, the whole sky screaming like a metallic banshee as the air boiled invisibly away from the thing's sides. The supersonic bang broke over the trees, but the ship was already gliding in among the stripped branches, bunting the trunks in its path aside with a casualness which only looked deceptive; at the last minute the curious centerboard dropped into view and the tail dipped; the centerboard glided sharply down. Earth fountained away from it like water. The shining hull stopped abruptly at the end of its trench by the lake. Then the forest was in flames.*)

Holm raked the photographs together and stacked them. "I'm going to ask both of you to come with me," he said. "And only partly because I've been talking out of turn to you. I know more about you than you think, Marty; I want you on hand."

"You don't need me," Pat said.

"Maybe not. Nevertheless—"

"On hand where?" Marty put in edgily.

"At the site. We've looked at this thing long enough. Now we're going to have to do something about it. We can get there quickly enough in my plane—"

Pat turned abruptly away, and Marty felt his teeth grinding together. Everything seemed conspiring to drive him repeatedly back and forth over that one deadfall; and eventually, the branches were going to break and drop him into the pit.

"I'm not going," Pat said in a neutral voice. "He doesn't need me to hold his hand."

Holm looked from one to the other of them with a curious, one-quarter smile.

"What's the matter—are you afraid?" he said, in that quiet tenor voice. "Each of us dies one way or another. I of all people can assure you of that."

The Piper Apache left for the metal-mesh strip next to the object, carrying nobody but Holm and his pilot. Explaining to Holm why he would not fly—or attempting to, for Holm suddenly became inattentive after only a few sentences—had cost Marty even more than he had anticipated, but he was still on the ground. Perhaps that was what counted.

The ride north in the jeep was bumpy and much longer without Pat than it would otherwise have been. Still, talk would have been next to impossible for either of them had she been along, for at the first check-point along the route Marty and his driver were both stuffed by Holm's guards into white, translucent plastic fall-out suits. But then, the suits would only have made visible a situation Marty knew would have obtained in any case.

It's too damn bad, Pat, he thought. It was fine while it lasted. Maybe this spaceship thing is the best way—something that comes from outside. We can always blame that.

The smoke was just beginning to appear on the sky as a faint haze when the jeep bucketed around a sharp curve and into sight of a roadblock. There were two more soldiers there, both in suits.

"You're Commissioner Holm's party?" one of them said as the jeep came abreast. The driver confirmed it. "All right, go ahead—but zip the suits all the way closed from here on. You'll probably be safe enough using the filters for about the next half mile. Then you'll hit another roadblock and they'll seal you up."

He waved them on. The sky was distinctly grayer now, and amid the sighing of the wind through the boughs Marty could hear a faint, distinct crackling. It was not much louder at the second roadblock, but there

the air carried with it, too, the sharp resinous odor of wet ashes.

At the roadblock the soldiers had flung up a barrier of barbed wire which reached away into both sides of the forest. Just beyond it was the wire-mesh airstrip, with the C-47 sitting on it; and nearby, too, was a half-track bearing a huge crane. The temporary field boiled with activity.

"We're putting two oxygen bottles on you," the guard said. "Don't adjust them or tamper with them in any way. They're metered to get you to the next roadblock. And don't fuss with the seals on the filters. From here on out, the local air is poison; don't forget it."

They were never out of sight of work details after that, and somewhere during the next half-mile the jeep went through the fireline. Since the fire was out at this point, there was nothing to see there but a huge cleared swathe, a firebreak—and, on the other side, the charred trunks. The final guard post came into sight much earlier than had the others, because there were no leaves and few branches to mask it. Standing next to it was an enormous white truck with a green cross painted on its side, from which came an immense, whining roar. The noise was a relief, in a way; ever since his suit had been sealed, Marty had been maddeningly conscious of the sound of his own breathing, and of the hiss of the oxygen bottles; the figure next to him in the jeep was like a bulky specter.

Another figure came out of the command shack, which here was a standard-size Jamesway hut, and motioned the jeep to stop. Through the faceplate of its suit, Marty recognized Holm. The Commissioner made twirling motions with his fingers on each side of his head; after a moment, Marty understood and switched on the earphones.

"Our friend's down the hill about a mile from here," Holm said at once. "Go and get connected up to the blower, and then we'll take a look at him. We're preparing to move the object to a rail spur, as soon as we

can get our cranes shielded, so it may not be here much longer."

He took Marty to the truck and stood aside while the technicians affixed to his back a flexible hose as big through as a sewer pipe, which stretched turgidly across the burned turf into the interior of the truck. As soon as the blast of filtered air was circulating inside the white plastic, the oxygen bottles were disconnected. Marty could barely hear Holm now, even at full amplification, over the noise of the blower.

"All right, let's go."

Beyond the truck, the ground sloped sharply, a fact for which Marty had been unprepared; the photographs had failed to show it, and he had not had time to read the contour-lines on the AEC's airspace-reservation map. At the floor of the depression, Lake Ihatchki shone sullenly under a white mist.

Between the crest and the lake, the object lay, featureless and still.

The two of them picked their way carefully down the slope, the blower howling in their ears. Marty realized suddenly that he was sweating, not from fear, but from simple heat; the metallic ovoid at this distance beat at him as strongly as a winter sun. He had barely registered the fact when he felt a distinct chill. The circulating air was evaporating the perspiration. The rapidly alternating physical sensations, the monotonous howling of the artificial gale, the cramped dream-slow movements to which the suit restricted him, the blackened motionlessness of the smoking tree-trunks, all were more than a little like an individualist's vision of Hell. While he stood, a blazing pine-cone rolled past him down the hill.

"Stop here," Holm's voice bellowed out of nowhere. "Unsafe from here on without shielding. Use the binocs."

Marty raised the instrument to his faceplate and pressed his nose against the inside of the transparent barrier. Because he was separated from the eyepieces by about an inch, the twin fields of view seemed no

larger than nickels, but after a moment he was able to blend them into a single image.

The ship looked no different; it was smaller, if anything, than it had looked on the photos. It was a good thing that Harry and the others had been over the object so short a time; had they stuck around only five minutes longer, their blood tests would have come out differently.

Then there was a change. Marty was uncertain, at first, what it was; nothing seemed to have moved. Then he saw it.

There was now a thin black line scoring the side of the metal egg. He shot a quick glance at Holm. The Commissioner had seen it, all right. Just four seconds later, the air around them was ripped wide open by a seering, screaming hiss—so loud and so sharp that for a full second later Marty could not even hear the blower.

White-ballooned soldiers appeared like magic all along the invisible boundary. Nearby, out of an innocuous tangle of black brush, the muzzle-brake of a 104-mm. gun slid insidiously into view.

The circle around the nose of the spaceship thickened on one side.

The nose was a circular door or airlock.

It opened.

It came out.

It was vaguely anthropomorphic, perhaps fifteen feet tall, although it was hard to judge at this distance. For all its height, however, it was squat, almost half as round at the belly as it was tall.

Beyond that, the fact was that it was bifurcate, had a head and two arms. The short legs, swollen at their centers like two over-stuffed sausages, sprang without grace or logic from the flattened bottom of the torso; the arms, only slightly less thick, stuck out from the sides as awkwardly as those of a starfish, a little below the shoulders. The arms terminated in two ridiculous little fists whose digits if there were any were pursed together like those of a contracted anemone so that they could not be counted. There was no neck; the domed

head, shaped somewhat like the skull of an elephant, rose straight from the torso without a break. In the head Marty could see a single glaring spot of light which flickered rapidly with colors so violent and so hot that it was blinding to look at them for more than an instant at a time; they made any search for other features impossible.

Feet? Again, it was impossible to be sure. Marty had failed to see them while the figure was emerging from the ship, and now they had sunk several inches into the black earth. He could remember only a vague blunt something, an oval extremity which was neither foot nor hoof.

The rest of the visitant was as shiny and black as anthracite, without marks or visible joints. It appeared to be naked of both clothing and gear; but "naked" was the wrong word, for it seemed to have neither genitals nor breasts. It was, in fact, strangely hard to see; the blackness was like a hole in the smoky landscape.

And that was all. The creature stood there. Possibly it was watching them, too.

Someone was pushing at Marty's suit.

"Pull back!" Holm was shouting. "Back to the truck. Get them to disconnect you."

The soldiers were already retreating, walking backwards, their tubes contracting with them. The 104-mm. gun stayed where it was.

"Wait a minute. Are you staying? What are you going to do?"

"I'm going down farther," Holm said in a tight voice. "I need full power on the blower. Don't argue, just go."

Reluctantly, Marty drew back. Without the binoculars, the visitant was only a motionless, tubby black doll in the distance, except for the smoke still rising around his fat legs. Holm waited patiently on the slope while Marty retreated.

At the truck, soldiers took the white caterpillar off Marty's back—he was glad to be rid of the noise of the blower—and shepherded him into the Jamesway hut. Inside there, at a long window facing the spaceship,

there was an argument going on: a plump little man with a pink scalp, a brown mustache, and a fringe of brown hair, and a tall, spare Slav, also nearly bald, both with binoculars glued to their eyes, were debating what kind of a world could give birth to such a creature.

"It's ridiculous," the Slav said. "Are those shuttered ports eyes? If so, it had three of them. That would give it range of vision wider than housefly—perhaps three-hundred-sixty degrees."

"I can't see any eyes at all," the plump man complained. "That light organ is too bright."

"Use polarization, then you can see. Also note, Davis: two whorled, horn-like ears, set flush to side of head. Center eye is set directly above mouth—if that light-organ is mouth. Is that possible—binary hearing with trinary visual scanning? How could its head carry brain of requisite size to accommodate both? And why should eyes be shuttered so heavily? They look more like gun-ports. Is someone playing us joke?"

At this point the argument became so thoroughly larded with technical terms that it passed entirely out of Marty's understanding. Yet, since the two men were not looking at each other, the whole conversation somehow did not seem to be about anything that was really happening.

Holm was already going down, cautiously, obviously wary of the increasing heat as he approached the creature, but not seeming to pay any attention to the radiation hazard. He stopped once to jump the blower tube over a stump, a procedure which took considerable strength, for the tube was nearly rigid with the force of the air being driven through it. Then, deliberately, he lurched on down toward the ship and its motionless passenger.

He looked extraordinarily lonely.

"I see *one* eye," the plump man reported dubiously. "The other two must be around the curve of the skull. Boris, have you got a reticule in your binocs? Check me on the belly girth. It looks bigger around than the airlock the creature came out of."

"It is close fit," the Slav agreed. "What is Chris doing? He is too close already."

"*This* is too close for me," the plump man said.

Holm looked at the dosimeter on his bloated white wrist and stopped. In the suit, he looked like an all-white caricature of the black thing that awaited him. Then he began to gesture.

At first his motions meant nothing to Marty, and then, suddenly, they became as clear as an infant's wordless plea to be picked up. Holm's arms raised slowly, palms forward, to show the creature that he was carrying no weapons. Then, equally slowly and with great exaggeration, Holm shook hands with himself. He pointed to himself, to the creature, to himself; shook his own hands again. Again, palms up; again, the handshake. Then he stepped back, pointing to an area in the blasted forest which could not be seen from the Jamesway—the direction in which the rail spur lay. Then, doggedly, he repeated the whole series of gestures; and again; and again.

There was no response.

"He hasn't a chance," the plump man said. "He's using anthropocentric signs."

"He is justified by thing's morphology. It has hands. If it has weapons it has to hold them. Empty hands, or hands busy with each other—those are reliable symbols of peaceful intent under such circumstances."

"On a planet that runs at 2000° F. Nonsense, Boris."

The Commissioner was repeating the gestures again. The visitant just stood there; it was impossible to tell if it was even following Holm's motions. When Holm stepped back, the creature as before failed to follow him. It was planted there like a great black rock, utterly silent and enigmatic.

Holm stood still too, as if indecisively, and then began to walk backwards. He could not, after all, turn his back on the thing while the semi-rigid air tube was holding him facing forward; but Marty thought he would have, had he been able. His fantastic courage utterly failed to match with the stereotype of the bureaucrat.

The tube contracted and sucked him toward the truck.

The visitant seemed to watch him go.

Holm's face, when he was shucked out of his suit in the Jamesway, was completely drained of color, and he looked as if he were about to be sick. An Army medical officer stepped solicitously toward him and was waved off. Holm went directly to the window.

"It's no good," he said, in his high neutral voice. Marty, who was beginning to become accustomed to it, could hear the edge in it. "How can we expect him to follow human sign language? His mind must work differently. He isn't even semi-human."

"My point exactly," the plump man said. "Did you hear that hiss when the door opened? There was a vacuum inside that ship!"

"All right, Davis, come up with something," Holm said irritably. "This is your department. How do you go about communicating with something that hasn't even got a mouth?"

"That is not our problem yet," the tall man (Kovorsky, of course, as Marty had already deduced) said quietly, still without removing the binoculars from under his shaggy brows. "Is from close range we have to work with him, Chris."

"To be sure," Holm said, his voice thinner than a razor. "Obviously he can't be left where he is, he's spraying hard radiation all over the place—and with enough intensity to induct radio-activity in anything he touches. He could poison the whole damned countryside. And if he decides to take a stroll, we'll have to cut loose on him—and worry later about where we'll bury the pieces."

Davis swung on him with a jerk of astonishment and outrage.

"Destroy him?" he said. "Inconceivable! Chris, think of the knowledge he represents! At least give us a chance at him. We can work out a way to talk to him, somehow. You can't afford to muff this. It may never happen again."

"I'm aware of that. But I won't give you gentlemen

one minute with him, not until I can take him someplace where people won't run up against him casually. Nor insects, nor bacteria, either. He's deadly, can't you get that through your skulls? He can't even put his foot down without sinking right into the ground—and he's hot, he's hot all up and down the electromagnetic spectrum!"

"Bacteria?" Davis said dubiously. "Insects? I don't see—"

"He's a source of mutations," Holm said. "One nuclear burst of a few seconds at Hiroshima is still killing thirty people a year, and the genetic damage was probably thousands of times that. This creature puts it out steadily, hour by hour, like all the X-ray machines in the world rolled into one."

Marty said: "Chris—excuse me, but you took the risk."

"No," the Commissioner said impatiently. He did not even seem to know who had asked him the question; he replied to it as if it had come to him anonymously out of the air. "I'm loaded with flavenoids, rutins, versenes, every possible antiradiation drug I could get. I don't take risks; I'm not paid for that. And genetically I don't exist; I had myself sterilized after I got more than the minimum permissible limit at a test shot two years ago."

Judging by the expressions he saw around him, Marty was no more shocked and surprised by this than Holm's intimates were. That much belief in the duties to one's self implied by a job was quite literally unknown to Marty outside the ranks of the celibate clergy.

"The point is," Holm said, "we've got to get this monster to a safe place. The best place would be our outdated fusion research plant outside Grand Rapids. We can shield him there, and there'd be the river to bleed off the heat; and we'd be able to recover some of the cost of the plant that way. But how under God do we persuade him to go?"

Nobody said anything for a long minute, though the answer seemed obvious to Marty. At last, since no one

else seemed willing to speak, Marty said seriously:

"Why don't you get behind him and push?"

The problem of Martin Petrucelli, State Senator, Civil Air Patrol officer, World War II hero and permanent groundling, was quickly submerged in Holm's mind, but it never went very far from the surface, and could be felt running up its periscope at unexpected moments. It was the visitant, however, who came first.

The debate in the Jamesway on how to persuade the creature to move had been noisy, but it had not come to anything in the end. Holm had finally seen that there was no practicable alternative to the suggestion that Petrucelli had made—to get behind the object and push. Of course, if the object resented this kind of attention, or decided for some other reason to push back—

The halftrack-mounted crane crawled cautiously down the slope toward the spaceship, the shielding around its cab concealing the fact that there was no driver inside it. It was being operated from a VHF radio in the Jamesway. Its movements were erratic: sometimes it would turn a degree or two for no visible reason, or run forward six to ten feet at increased speed and then brake as suddenly; once while it had been stopped temporarily it began to jiggle on its massive hydraulic springs, as if it had recognized the creature in front of it and was impatient to proceed.

"What's the matter with that thing?" Holm said irritably. "It acts defective."

"It's all right," the radioman said. He was sweating however. "It's the damned radioactivity. It interferes with the RF impulses—garbles 'em or blocks 'em. Some of it's acting directly on the truck's own circuits; nothing I'm doing accounts for that idiotic bouncing up and down."

"What idiot shielded an empty cab and didn't shield the RF receiver?"

"You couldn't shield the receiver without blocking the transmission too," the radioman said surlily. One of his hands began to tremble over his set. Holm shut up.

The half track inched to a stop behind the black figure and the crane swung around. The radio operator touched a switch, and a net of steel cables dropped over the creature and gathered itself in around him. When the operator moved again, the roar of the winch engine could be heard clearly all the way up the hill.

For a moment nothing happened at all, except that the sound of the winch ground rapidly down to a furious growl. Then the note rose a little, as though the winch was meeting less resistance or gaining on its load. Holm stiffened.

The tread of the halftrack on the side opposite the creature, he saw suddenly, was off the ground almost a foot. He opened his mouth to shout.

But he was too late. Solemnly, the halftrack toppled over on its side. It fell directly upon the creature. The back of the cab buckled with a screech of shearing steel.

The winch engine howled in anguish; so did the Diesel which drove the tracks. The operator cut them both off with a frankly shaking hand.

"No good," he said. "He weighs more than it does."

"Maybe it crushed him," somebody said hopefully.

That was at least possible; he could not be seen with the overturned halftrack in the way. But the answer was forthcoming immediately. The halftrack stirred again, independently. It seemed to be running through its disaster in reverse, like a movie trick. The tread which had left the ground came swinging up and around in a heavy arc and slammed back into the earth.

The entire back of the cab was crushed. The net, shredded, swung wildly back and forth on its cable from the end of the crane.

The creature stood exactly where he had stood before, but he was moving. Its great arms—the hands were open, so that Holm could see that there were six fingers on each, starfished from the palms as the limbs were from the body—were falling slowly and evenly back to its sides. When the motion was completed, it was back in the same position he had assumed after it had first left his spaceship.

"He righted the truck," the radioman whispered. "Didn't hurt it a bit."

"Try the Diesel," Holm said hoarsely. "See if you can start it."

Very distantly, at the bottom of the hill, an inertia starter whined. Then the Diesel blatted once, twice, twice again, and caught.

"Move it out," Holm ordered. "Toward the rail spur."

The humiliated halftrack backed away and turned. It began to crawl away, its movements as jerky as before, shielding and torn steel flailing on both sides of its cab like clipped wings.

The truck was almost out of sight when the creature moved again. One leg lifted, bending at the middle, the black hide creasing as if a skin full of thick wine were being twisted. The creature took a step forward. Then it took another.

It was walking. Its motion was natural and smooth, but it was also vastly slow. It followed the halftrack.

For a moment after he too had disappeared, Holm remained staring fascinatedly at the train of oval tracks the stalking shadow had left. The first two—where he had been standing—were so deep that the bottoms of them could not be seen. The rest were shallower; in fact, they had lost depth with every new step the walker had taken. The last few that could be seen from the Jamesway were no deeper than a bear of comparable size would have made.

The creature could control his weight.

"All right, let's get moving," Holm said, returning the binoculars to their case. "Evidently he's going to cooperate, as soon as he understands what we want of him. Nobody's to mess with him as long as he stays on the direct route to the railhead. If he turns off that route, try to herd him back on it with a small-arms fire. I don't think that'll hurt him—and even if it does, we can't have him starting another blaze. And keep the planes tracking him; we don't know how fast he is yet. Is the flatcar at the railhead already?"

"Came in this noon," the radioman said, wiping his forehead.

"When he gets to it, urge him into it by butting him with the halftrack. That's one kind of language we know he understands now. Then ship him out. Call ahead all along the line to Grand Rapids and see to it that he has a clear track. Find out what bridges and signal stands and so on he may have to go through. The reinforcement and shielding on the flatcar are a cinch to make it wider than gauge; anything that it won't pass through or under will have to be torn down. Or dynamited. And see to it that nobody approaches him closer than 500 feet at *any* time during the trip."

"Yessir." The radioman resettled his earphones, leaving one ear partly uncovered.

"And one other thing: that car is never to go faster than ten miles per hour. If it turns over and dumps that monster at any point along the route, every man involved will wind up flagging donkey engines for Standard Oil in Carapito—if he lives through the accident. And make it clear that Carapito is a jungle town in Venezuela. Understand?"

"Yes, sir."

"Davis, Kovorsky, you're to go to Grand Rapids; I'll meet you there. If we get this creature to the plant without any mishap, we'll install him in the pile-chamber there and rig waldoes, television observation, the usual thing. After that you can test-interview him, and we'll see to it that you get a staff and whatever other facilities you need. Don't forget that we'll have to clear everybody you want: namechecks on minor help, and full field investigations of anybody who's to make decisions you don't make. And that both my staff and the Pentagon's representatives will insist on monitoring the work, right from the beginning."

"Naturally," Kovorsky said, making a wry face.

Turning toward the door, Holm caught sight of Martin again.

"Marty," he said. "There's going to be a Commission meeting Friday about this black snowman of ours.

I'll need you to testify: you know what happened in the very beginning and did the work on the evidence. Can you get there?"

"By flying?" Marty said. "No."

"I don't give a damn how. But get there; that's all I care about. You signed an oath when you joined the CAP. I'm invoking it, and I'm going to hold you to it. I want you at that meeting Friday—how you arrange it is up to you. Understand?"

"All right," Marty said. "I'll be there."

The creature's progress toward Grand Rapids, surrounded by a black case with a legend stenciled on it identifying it as a computer, was as stately and attended by precautions as though it were actually an immense and fragile telescope mirror. People in the first small town through which he passed were alerted by the hooting of the advance train and came out to watch the soldiers laying down the barbed wire. After that, they phoned their neighbors on down the line.

By dusk, the wire barricades in each new hamlet were lined with spectators, craning their necks and holding their smaller children on their shoulders. Many of the men had binoculars. At night, cars drew up on either side of the thousand-foot path through which the rails ran, playing their headlights across the tracks in each others' faces. When the locomotive and the flatcar with its enigmatic burden crept past them—nothing but a black box being towed at ten miles an hour—there was a tumult of auto horns.

What the visitant thought of the noise—if it heard it at all—could not be imagined. He was very nearly saluted by a more organized sort of noise at three o'clock the next morning. A group of high-school students had managed, in the night silence, to get past the wire barrier at a point several miles outside their town, and then hiked across to the railroad station. They had with them torches ready to light, and hastily painted banners:

WELCOME GIANT BRAIN

HOW MUCH
IS 2 X 2

ARE THERE
MEN ON
MARS?

WHO DOES EVELYN LOVE?

They also had a collection of dented band instruments. Their own eagerness saved them. They lit the torches, rattled New Year's Eve noisemakers and struck up a chorus of "Billboard" for the advance train's predecessor, which happened to be the staff train, not the creature itself, and were chased home in disgrace.

None of them knew that had the black box actually passed that close to them, all of them would have been dead within a month after its passing.

Holm did not draw an easy breath until the flatcar had been shunted safely into the receiving yard of the Grand Rapids plant, and the gates swung shut across the tracks. With Davis and Kovorsky, he stood on the bridge of the plant's control tower and watched, while heavy-duty cranes plucked the black box off the car and swung it aloft.

"They'd better not drop him," Davis muttered.

They didn't. The ground gaped for the creature, and the cranes lowered him into it. The steel claws came up again empty and the shaft closed. A moment later, a flood of sticky white foam began to pour from nozzles at the bases of the surrounding buildings: a chelating agent, designed to pluck metal atoms with chemical claws from the concrete, the dust, the ground itself. Once the foam was flushed away, the yard would be reasonably free of induced radioactivity.

The Grand Rapids plant—actually well outside the city—was from the point of view of the present situation nothing but a happy accident. It had been built

years ago as an auxiliary plutonium production unit, which together with a chemical plant near Macon, Illinois, was to supply raw materials for Nagasaki or implosion-type fission bombs. Rapid progress in bomb design, plus some equally effective espionage by some persons named Rosenberg and Greenglass, had rendered both plants obsolete before they had been used. The "Spoon River" plant at Macon had been sold, but nobody wanted Grand Rapids; nobody owned a suitable atomic pile to put in its still-cold pile chamber.

The visitant was there now. It was not necessarily ideal for it, but it was ideal for the human beings who had to deal with him. It was surrounded there by hundreds of cubic feet of lead-shielded concrete. The poisoned air that had circulated around him was carried up a 300-foot stack by special blowers; by the time the dust particles he had irradiated had traveled that far, enough die-out had taken place to make it safe to release them into the air. And should his radiation output suddenly increase, automatic counters would record it and flood the whole chamber with water, liquid cadmium, or molten lead, depending on what the increased output seemed to mean.

Finally, nearly every possible means of observing him was available in the plant. In the heavily reinforced bucket seat which had been installed for him, he could be watched from all sides at once, right here from the bridge. He could be heard; his temperature checked; his waste-products—if any—analyzed; his chemistry and radiology probed. If there was any need to introduce objects from outside into the tank, they could be dropped in there by pneumatic tube, or, once he learned the use of the airlock—if he did—he could send out or take in samples which were carried to the lock by an ordinary toy electric train. Once the objects were inside the tank, they could be handled by powerful yet precise pantograph arms and hands—"waldoes"—which projected from the walls.

"We have some first results," Kovorsky said abruptly, turning from the television screen on which he had been

watching the installation in the tank. "They mean little or much, one does not know, but they are a start."

"Tell me more."

"To begin, he attracts cosmic rays. All plates taken in his vicinity show heavy-nuclei tracks swerve sharply toward him. Projected, they hit him. It is impossible to imagine how he does this, but purpose can be guessed. They may well be his source of energy."

"He eats cosmic rays?" Holm said.

"I doubt it," Davis said. "The effect is real enough, but the 'why' is another matter. I don't think the energy supply would be steady enough to maintain his radiation output at such an even level."

"It could be conserved—but it is only guess," Kovorsky agreed readily. "For another, Chris, we are never to find out what he is made of, unless perhaps he should die. Or his hide yield samples, which I doubt. You see, he varies his emission spectrum, I would almost say at will. No two spectrographs we took of him are alike. Some minutes he is made up like white dwarf star, others like Crab Nebula; this I don't believe, I'll tell you. Effect is optical. We are taking motion pictures now through prism, to see how rapid is the variation."

"What I want to know," Davis said, a little petulantly, "is what he *does* with all that energy. There he is, just standing there, doing nothing, and yet he's as hot as ever. And operating a spaceship can't be hard enough work to require a pilot that runs as hot as that. Maybe he puddles steel for a living?"

Holm dropped that line of thought without interest. That kind of thing was up to Davis and the crew. It was characteristic of the plump little expert to be preoccupied with the technical details; Davis was invariably more interested in problems than in their implications. The result was that he and the spare Slav quarreled often and heatedly over procedures and conclusions. They were, nevertheless, close friends, and highly dedicated men whom the Commissioner trusted implicitly.

It was Kovorsky in particular, however, upon whom he was counting. The older man, Russian-born but

long naturalized, was widely known to the public for his popular books on astrophysics; they were wittily as well as clearly written, and illustrated with diagrams and cartoons of his own which even fellow-scientists thought funny as well as accurate. It was not generally known that his ability to talk accurately about abstract matters in simple (if sometimes not exactly idiomatic) English was only a single facet of a great gift for languages. He spoke fifteen, including three West African dialects which he had been the first to crack—most of them better than English, although he wrote uniformly well in all of them.

Davis and Kovorsky had been hired by the State Department in 1953, when the international pool of fissionable materials had first been proposed, and had become involved with the AEC and with Holm automatically because of the nature of the subject. It had been then that Holm had discovered the most esoteric of Kovorsky's linguistic gifts: the ability to understand the relationships between the structures and assumptions of different languages. Or, in brief, the ability to explain what the Congolese delegate *really* meant by the idiot thing the translator insisted he was saying.

If the black creature could talk, Davis would find out how—and Kovorsky would understand what was being said.

Of course, if Holm were to ask either man what the import of the message was for the United States—and by extension this whole small planet—neither of them would have an answer Holm could use. Davis wouldn't even understand the question; Kovorsky would repeat patiently, "What he says is . . ." Scientists were like that; others of them would soon be telling Holm to a degree how hot the creature was, where his power came from, how his ship flew—but not what his arrival here meant.

Questions like that were Holm's business.

The hard ones.

four

WHEN THE Atomic Energy Commission's second meeting on the subject of the creature finally began, a civilian named Alexis Kaye, whom Holm didn't know, hadn't expected to be present, and didn't like at sight, sat in on it. General Egl, the head of the Commission, introduced him to Holm and to Nathan Albers; the other two commissioners—with Egl, the three most recent appointees—obviously already knew him. Equally obviously, they were a little afraid of him.

He was a scientist, because anyone with enough Q-clearance to sit on a Commission meeting had to be one, unless he just happened to be President of the United States. Knowing that, Holm knew nothing, for these days scientists were into everything. Holm was unable to determine what Kaye's line was. From the little that he said he seemed to be a mathematician, a highly theoretical or "pure" one, a games theoretician or something of that sort. Sometime later, however, Kaye quietly mentioned something called "a selfed Clostridium orthoclone"; Holm was happy not to know what that was, but he had read the Merck Report and knew what kind of category it fell into; bacteriological warfare. Evidently Alexis Kaye's security clearance didn't cover atomic energy alone.

Holm had never heard of him, which was disturbing in itself. Physically he was a sack-suited, bottle-shaped man with a sharply beaked nose and expressionless gray eyes. His name was almost surely not his own; if there was a civilian named Alexis Kaye who had the complete confidence of the Commission, a man who

could talk with calm assurance about matters no civilian even knew existed, then Rochelle of CIA, or the FBI itself, should have told all five commissioners—not just the three appointed by the present administration. Even his initial, following current fashion, was not his own—it was Kafka's. Alexis K. . . . No, it meant nothing—except that he was surely no civilian, and that even his physical appearance might be a body mask. Holm decided to watch his tongue.

"The creature's secured, then," Egl said, shuffling papers.

"And high time," John Diamond said. "We're paying for his stay out in the open already. That forest fire he started got rained out in Kingston."

"I was afraid that would happen," and "Where's that?" came at once from Holm and Henry Abercrombie. Holm added: "Was it bad?"

"Upstate New York. It could have been worse, that's the best I can say for it. The count there now is about 90 per minute."

"That's high," Holm said thoughtfully. "Not hazardous over a short haul, though."

"About equivalent to an A-bomb fall-out about 2,000 miles from the shot. Enough so that we were able to take radio-autographs from leaves, roof shingles, asphalt blocks out of the roads, and just about every other exposed surface in town."

"What about the rain-water?" Albers said. Holm shot him a grateful glance. Getting to the point was one of Albers' specialties.

"About 300 microcuries per milliliter. We shut the local reservoir off. The town's going to drink bottled water for the next two weeks—or else go on a binge."

"Was that strictly necessary?" Egl said.

"Strictly, yes. We haven't identified the contaminating elements yet. The rules say that under those circumstances, 300 mu-c's per mm is three thousand times higher than the permissible level for drinking water. We'll have to wait for die-out. For fission products, that takes fifteen days; what came down out of

that fire may take less, but I wouldn't count on it."

Egl subsided gloomily. He was probaby thinking that the Administration wouldn't carry Kingston in the next election. "What are you doing with the beast now?" he asked Holm.

"Looking at him. And he's looking back at us. He allowed himself to be installed in Grand Rapids like a lamb; that may mean that he's highly intelligent, or contrariwise, that he's stupid. We just don't know yet. We won't know until we lick the communication problem; I've got Davis and Kovorsky both working on it." He saw Kaye promptly write down both names in a black notebook. "It's going to be tough. The creature hasn't got a mouth, though the pictures make him look like he has, and thus far he hasn't made a sound. If he communicates by radio or something like that we're *really* in for trouble; he's his own best jammer, on all channels. As for sign language—I tried that. He just stood there; in that area he responds only to being pushed."

"You were that close?" Albers said. "You shouldn't have—"

"I didn't take any chance," Holm said wearily. "He didn't come to Earth to attack the first moving thing he saw. Give him credit for that much intelligence, anyhow."

"But what do we want to talk to him for?" Egl said. "It appears to me that there are a good many other steps that should have priority."

"We have to know where he's from and what his intentions are. Otherwise we have no estimate of his potential, dangerous or otherwise. Besides, it's going to take a long time, so the sooner we get on it, the better off we'll be. Scully and Adamsik may be able to talk to their saucermen from a standing start, but when you've got something real to deal with it isn't that easy."

"Speaking of saucers," Abercrombie said quietly, "how long are we going to be able to keep this creature a secret? The newspapers are converging on Grand Rapids and the whole area; there are 'Mystery Train'

stories on every front page I've looked at. With all the saucer hysteria we've got just as it is, he'll scare the public blue."

Holm nodded grimly at the chemist. "I thought you'd say that, Henry. Let me say right now that I think he ought to be declassified at once. It's a major event and the whole world ought to know about it. Furthermore, we already have about eighty times as much knowledge in the secret category as we ought to have, and I'm thoroughly opposed to classifying this creature before we even know what he is."

"I know," Egl said wearily. "Freedom of information in a democracy. You've given us that speech before, you know, Holm. Evidently it hasn't occurred to you that the knowledge we may get from this creature—and his space vessel—may work out to our military advantage."

"Impossible," Holm said coldly. "If the next war happens, both sides will be totally obliterated, and probably the rest of the world with them. Nobody knows that better than the five of us—and possibly Mr. Kaye too. We know exactly how it will be done, and with what. Under those circumstances there is no such thing as a new military advantage. Suppose this creature teaches us how to blow up the sun—how do we threaten the Russians with *that?*"

"Suppose he teaches us a defense against the hydrogen bomb?" Diamond objected. The other four commissioners, even including Egl, turned and stared at him.

After a moment, Albers cleared his throat. "First of all, General, this creature is actually doing us some military *damage now.* We've already alerted so many troops that it's undoubtedly being reported to the Kremlin as a mobilization."

"That's true," Kaye said. Just like that: *that's true.*

"Second, we are going to have to turn some of our major weapons inland, inside our own sphere of influence—just in case. That's a strategic loss for us, and it hasn't cost the U.S.S.R. a kopek."

"Do you think we ought to leave the creature to the cops?" Abercrombie demanded.

"Good God, no. I'm just pointing out that from the military standpoint he's worth less to us right now than he is to the enemy. Or the people who were the main enemy, up to now."

Holm's lips compressed. The qualifications went to the heart of the matter.

"May I remind you gentlemen," Egl said ponderously, "that all this is a question of foreign policy in the last analysis. It isn't up to us to decide such questions."

"It's up to us to pose them," Holm said, "and we've posed them before so as to trigger the answer we wanted from State. I've seen you do that yourself, Egl—on the Jordan Dam thing, for instance."

Egl's face took on the expression, like that of a sheep with hiccups, of a man who has stopped himself from saying "That was different" only in the nick of time.

"I want to get back to what Holm said a minute ago," Diamond cut in. "I wouldn't mind declassifying the creature myself, if the public were all we had to worry about. Having a real visitor from space to think about might stop the saucer-sightings and get the Air Force shut of that whole project. But there's this: the whole affair has implications that other nations can figure out as well as we can. The creature is powerful, and we don't know whether he's hostile or not. And *he's on our territory*. If somebody outside the country gets apprehensive enough, he might lob a bomb at the beast. Even supposing it hits him and kills him, what would happen next?" He spread his fingers expressively.

There was quite a long silence. Finally Holm said, "All right, Diamond, you win. Whatever risks we take with the creature, we can't risk war between ourselves. We *know* we're deadly."

"Very good," Egl said briskly. "Now another matter, Holm, the Pentagon has assigned Kaye here to be its representative at Grand Rapids. His staff will work around the clock with yours."

Holm knew what that meant. There was nothing that

he could do about it. That everybody spied on everybody else was no longer even a policy, which might be reversible; it was a neurotic compulsion. Sooner or later it was going to wind up in a nation-wide psychotic break.

If the break came over this affair, there would be very few people left to pick up the pieces. Better that, though, than that the break should come over the cold war. *Nobody* would survive in that event.

"All right," he said. "Can I bring my man in now? I mean Lt. Petrucelli, the CAP officer I mentioned when we started. He's been cooling his heels for a long time out there."

"Explain to me again what you want him for," Abercrombie said. "Anyhow he's not cooling his heels; I've had the staff interrogating him."

Holm felt a surge of sympathy for Marty, but he put it down. He'd need all the sympathy he could get when the clutch came.

"I want him to act as our representative on the spaceship project," he said. "We're going to have to run that right where the ship lies, and this CAP airstrip is adjacent; which means that we're going to have to keep the squadron there for a while anyhow—they all know too much to be turned loose. Besides, they'll be useful in operating the field."

"But why this particular man?" Egl said, frowning. "As I understand it, he's not even the commanding officer of the squadron."

"This particular man because he's intelligent, already knows things about the situation that we can't afford to let him carry uselessly around in his head, and is the only man on the scene who has any comprehension of basic physics. Forget the C.O.; I'll tell you a couple of hard facts about *him* some time. Petrucelli is better for our purpose than any captain; besides he lives there and knows the people."

"You make him sound kind of high-powered," Abercrombie said.

"I haven't finished. He's also a State Senator, and

may be a Representative here in Washington next year. I'm told privately that the day the states get their own atomic power enabling acts, he's the governor's first choice for a commissioner. He's also, I should add, a modest man with personal troubles that give him a low opinion of himself. All this adds up to an ideal liaison man between the AEC and the spaceship project."

"Ah, ah," Egl said. "A protégé of yours, Holm, eh? Might sit on this commission some day himself, given the breaks, eh?" He smiled a fatherly smile. Once Egl saw a political explanation, he understood everything at once.

"Call him an advisor. I'm going to need some clear-headed layman to put a word or two of common sense in my ear before this affair is over. I'm over-supplied with highly specialized advice."

"All right," Egl said. "An able presentation, Holm. Let's take a look at the man."

five

THE SPACESHIP lay by the shore of Lake Ihatchki, where it had fallen, small, massive, shining, and wholly enigmatic. No engineering effort to move it had budged it a centimeter; it seemed locked to the Earth. There was now a wide blacktop road leading directly to it from the field, and the traffic on the road was heavy.

The traffic on the field, too, was far heavier than the little emergency landing strip had ever been intended to bear. Boltzman, glad enough to find something the restive cadets could do, had set them to building a control tower on top of the operations shack. A truncated pyramid of two-by-fours now supported a plank plat-

form about three feet above the shack roof; this, in turn, was covered by a slanted tar-paper top. Cadets spelled each other on the platform, directing traffic with a biscuit gun for which the squadron had never before had a use; the directions were checked by phone with whichever senior was acting as charge of quarters in the shack itself.

The system worked well and there was no difficulty in keeping the platform manned day and night, especially after two walls against the prevailing winds were added to the open cubicle. Nobody told the kids that Hammerkein could have handled much of the traffic by radio, and that the Air Force was already directing its own part of the traffic that way. It was just as well to give both cadets and seniors the practice at light signals. Small planes without radio equipment would again be the rule here, after this trouble was over.

As for the field itself, the Air Force engineers had enlarged it, and had laid three metal-mesh landing strips which were superior in some ways to anything the squadron had ever had even on its home field—a commercial airport—let alone on bivouac. Their only drawback was that, designed as they were for heavy military ships with fat doughnut tires, they had a tendency to chew rubber on the squadron's own planes. The unabashable Harry Hartz complained about this and was politely ignored; thereafter, Marty passed a "suggestion" through channels. The Air Force black-topped one of the strips within two days thereafter.

It was Marty's first test of his status and powers as the AEC liaison man, and it was hard to tell whether or not Harry was pleased about it.

Servicing and repairing ships kept most of the rest of the male cadets busy. There had never been an idleness problem with the girls. From the day that the USAF specialists and civilian scientists had moved in to study the ship, there was a steady demand for the field hospital, and for nurses and nurses' aides to work in it. Film badges had to be developed and checked daily—Perkins got the job of coaching several of the

girls in that chore and happily endured the subsequent ragging about what did or didn't go on in Casner's darkroom. The AF's laboratory technicians taught another quartet of girls the mechanics of blood sampling and counting. The hospital's pharmacy always needed help.

And every so often, there was a patient—for whom, ordinarily, very little could be done. Radiation sickness is never mild.

The medical chores seemed to be more than welcome to Pat Petrucelli, who besides being an ex-airlines hostess was a registered nurse. She shouldered the responsibility for all the squadron's part of the load with what seemed to be a sort of relief. She was in the hospital tents fourteen hours a day. Marty didn't like it; the rift between them was already wide enough without its being deepened by their being separated from each other, effectively, for weeks at a time; but there were no grounds on which he could have objected to it even had he wanted to. It was her business.

The fact that Marty's own chores were no less heavy did not prevent her, he knew, from thinking that he was doing no more than sitting on the sidelines. Nothing can be more conspicuous on an active airfield than a pilot, who, day after day, does not fly. Because of her schedule, she never saw the tottering piles of paperwork the liaison job had thrust upon him; it arrived after she went on duty, and was disposed of, usually, by early afternoon. As for the fact that he spent the rest of the day with the group which was trying to find out how to fly the spaceship—for the Air Force technicians were intensively mining Marty's detailed historical knowledge of airplane control systems, having found through the Institute of Aeronautical Sciences that he was a known expert—she greeted that with the abstracted nod of a wife who has already permanently discounted a harmless hobby.

That this job threw him in almost constant association with Al Strickland did not sweeten his cup any. He

found, however, that Al was less difficult to work with than usual.

Evidently part of his intransigence in the past had been due to the squadron's inability to occupy his full attention.

The flight problem, Marty strongly suspected, had been decided upon only after the AF investigators had drawn something very close to a blank on every other approach to the spaceship. Actual physical approach to the vessel was not as difficult now as it had been at first, though carelessness near it could still be fatal. The forest fire, the worst in the history of the county, was out, and the ship was not going to start another one; it was cooling, though the cooling was gradual and did not seem to be accelerating. Doubtless some of the energy which heated it came from the radioactivity of its component elements, but almost all of these were radio-isotopes with relatively short half-lives and were falling back down the periodic series to which they belonged toward stable—and somewhat more familiar—engineering materials. Obviously by far the largest volume of both heat and radioactivity had come from the creature himself; he had negative entropy, like any living creature, but the ship did not.

How electric currents could have been pushed efficiently through the resistances involved in circuits meant to run at so high a temperature could not be guessed. It had proven impossible to study the circuits themselves. A remote-control inspection of the interior of the ship had revealed that all of its machinery was between the hulls—and those could not be cracked. A shielded team had spent all of one day trying to cut into the metal with an atomic hydrogen torch, and had succeeded only in raising a small patch of hull to a mild cherry glow, which died away without leaving any scar. A diamond drill wore as smooth as a candle-end in the first five minutes of drilling.

There was always the chance that once the die-out in radio-activity was sufficient, X-rays could be taken through the hull, but the most optimistic estimate of the

time that much die-out would take was ten years. Preliminary efforts to use the ship's own gamma-ray output to peer into small, carefully selected parts of the craft indicated that even the X-rays, when and if they could be taken, would be hopeless. The ship's circuits evidently were all stenciled, on some material at once both perfectly insulating and as thin as a mono-molecular film—and the stencils stacked in hundreds of layers per centimeter. What could be made out on the fogged plates looked like a composite of all the scribbled paintings of Jackson Pollock.

That left little to be investigated but the inside of the ship, which at first seemed just as hopeless. There was no cabin; there were no identifiable controls. The empty space at the core of the ship was an enlarged, prone image of the pilot, connected to the outside by a cone-shaped corridor, smallest at the airlock end. The 360° camera showed that the corridor could close completely, simply cease to exist, once the air-lock door was shut; the walls, too, would slide in and touch the creature at every point while he was in the ship.

That, at least, explained why there had been a vacuum inside the ship, despite the fact that the creature was indifferent to both vacuum and atmosphere. There was no space inside the ship for anything else, not even a scrap of air, when the pilot was in it. When he had released himself to leave, the clearance left by the retracted walls had left a vacuum.

It was impossible, Marty quickly discovered, to think fruitfully about this stifling womb of energy and metal in terms of a pilot's cabin or an aircraft control board. There was no reason why the ship's controls had to be concentrated. With the ship in contact with the creature all over, he might easily have controlled some of its functions by changing his skin temperature, by some pressure of his knee or an elephantine pad, by a slight shift of his great mass. There were separate channels for each of his twelve fingers, and a casque-shaped space to cradle his head; on the sides of the casque were two orifices corresponding to his ears, a closed iris dia-

phragm below where his "mouth"—his color organ—would fall, three dark transparent circles into which his eyes could look.

Obviously, everything on this ship did something.

"Does he need to have three eyes to see in three dimensions?" Marty asked Al. "Two eyes are all that you need to see depth. I'll bet that that third eye-port is for navigation, not contact flight. There can't be much contact flying in space, anyhow—the situation out there doesn't change much. More like blind flying."

Al passed up the chance to ask Marty how he knew. Instead he looked at the diagrams on the table, and tried to fit the 360° photos to them. They wouldn't fit; the parameters were wrong. Observing the fragile new entente, Marty too passed up the chance to point this out.

"I think you've got something there, Marty boy. That top hole must send him a chart or something like that. It looks frosted; the other two are clear. But what kills *me* is those holes for the ears. He doesn't need them to hear the sound of his engines through—if they make any noise. He could feel that right through the hull. What kind of noise would he need piped to him?"

"No kind," Marty said slowly. "I don't think his 'ears' are ears."

The AF technician who had been unobtrusively operating a log-log rule across the table from the CAP officers looked up. "That's interesting," he said. "I've just been trying to make sense of those ear-holes myself. Those things on his head *look* like ears."

"Maybe that's the trouble. What would he be listening for? He doesn't make any sound himself—and there was a vacuum in the ship. If there's no air in those feeder tubes, he couldn't be getting any sound through them."

"Damned if he could!" Al exclaimed. "Not a whisper!"

"I don't think he can hear a sound," Marty said, with some satisfaction. "The 'ears' are organs for something else—God knows what. And that 'something else' is

what's being carried in those tubes on the ship; something that will travel in a vacuum."

The technician grinned. "In short, electromagnetic impulses," he said. "The tubes must be part of a radio-frequency plumbing system—radio wave guides."

"What about the static?" Al objected.

"Probably it's frequency- or pulse-modulated. We'll stick a signal-generator in there and find out." The technie calmly tore up most of the papers he had been figuring on for the past hour and drew over a fresh pad. "Now maybe I can derive some sort of sensible equation for the sound echoes we've been getting from that plumbing. Given a loaded complex guide system, we can assume that it can be made to carry negative phase velocity as a signal system—"

"Wait a minute before you get down out of sight," Marty said. "Does that mean that his 'ears' pick up radio too?"

"Probably pick it up *and* send it—VHF stuff, or even UHF. They must be directional antennae. We'll phone Grand Rapids tonight and have them analyze those whorls; I'll bet they turn out to be something revolutionary in radio-telescope objectives. Now shut up and let me at it."

"By God." Al chuckled delightedly. "I'll bet the first sentence they get out of him is a commercial. Do you think we can figure out what that mouth-diaphragm is before chow time?"

"I'm tired," Marty said, with a mock regretfulness that was half-real. "Anyhow we can't fly that ship tonight, Al. Harry's called a staff meeting."

He stood up and stretched.

"Can't make it," Al said. "Have fun."

"You'd better. Harry won't like it if you duck out."

"Let him gig me, then," Al said sourly. "The CAP was still a volunteer outfit the last I heard. I don't start acting like a GI until the Air Force mobilizes me—in grade. I'm not sitting in on any Harry Hartz meeting tonight."

Abruptly, he grinned and looked sidewise at Marty.

"*I* got a date," he added. "To hell with the Big Picture. Sleep on it."

He left, walking jauntily.

The meeting was a bore.

Pat did not get back to the tent until four the next morning. She undressed in the dark and got into her cot without a word.

Marty did not Sleep On It. He did not sleep at all.

It was three weeks before Holm was able to get back to Grand Rapids—three weeks during which even his most routine tasks were underlaid with a feeling of unfocused, irrational dread. He popped the question before either of the linguists could utter so much as a greeting.

"Progress?" Davis said. "Well, yes, we're making some progress. But it's been slow work. Let me tell you, Chris, the more that I see of this animal, the less I believe that the world even exists that could have grown him. Do you know what his energy source turned out to be? Bethe reaction VI!"

"Let's see," Holm said, flipping rapidly through the pages of that part of his politician's memory which served him for a physics text. It had originally come as a considerable shock to him that a man could Jim Farley facts about the universe as easily as facts about people, but it had been an invaluable discovery. "That's the heavy boron, hydrogen, helium cycle. What the hell! That can't be right, Davis. He'd go off like—like a nova!"

"Is true, though," Kovorsky said. "His internal temperature cannot be much under seven million degrees desolute—"

"Kelvin?"

"Yes, Kelvin—Centigrade and Fahrenheit would be higher, of course. Impossible that he keeps all under control, but he does. In view of facts, we must say his skin is comparatively frigid."

"I still wish I knew what he needs all that energy for," Davis said.

"Never mind," Holm said. "What about communication?" He was later to remember that question with fury toward himself; it was the right question, but in the wrong context.

"Ah, there we have some more," Kovorsky said. "You recall that he varies his emission spectrum? Well, that is also how he talks. He varies his colors on that mouth-like patch in front of head. By showing him objects, we have compiled table of frequency-sequences which for him are words. He has a name, even; since it is roughly combination violet-orange-red, we call him VOR."

"So far we have the names of about two hundred material objects," Davis said. "Table, chair, man, house, book. And the plurals. Not much to go on." He leaned against the work table with a sigh which fluffed out his mustache like brown butterflies.

"I can see," Holm said thoughtfully, "that we're going to have trouble with abstractions—things like 'think' or 'eat.' "

"And things like 'be,' 'make,' 'come,' 'do,' " Kovorsky said, putting down his notebook. "Essential words, you understand. But it is not easy. There is almost no point of contact between our thought-patterns and his."

Holm looked into the television screen. VOR was still standing motionless in the tank, where he had been standing sleeplessly for three weeks now. He had never paid any attention to the bucket seat, except to give his name for it. On a ceramet table before him was a litter of objects. Those that were still recognizable were so unrelated to each other as to seem like things turned out of a small boy's pockets at the end of a busy summer day. Many of them, however, had charred or melted into characterless lumps.

His very motionlessness was frightening, especially after one had been made aware of the unthinkable fury of energy that raged beneath that black hide. The creature was holding that power in check until—

"Until when?

The three eyes seemed to look expressionlessly into

Holm's. Colors glowed on the mouth-patch, displacing each other rapidly on the blank, motionless face.

"What's he saying?" Holm asked.

"Just his name," Kovorsky said, peering at the screen. "Unless we show him some object, or otherwise indicate that we are watching, he repeats that color-sequence over and over. One is reminded of code-identification."

Like a lighthouse, Holm thought, signaling a danger to sailors who can't read it.

"We can talk to him a little now," Davis said. "See the teletype keyboard over there? That's hooked up to a sort of miniature color-organ in the tank. We can flash him different combinations by punching them out on the keys. We can't get the fine frequency control he has—the range of expressiveness maybe—but it seems to do."

He pecked at the keys, adding, "I'm sending 'VOR' back to him. That usually gets us some action."

But there was no action; just the flow of colors. Behind Holm, Kovorsky was murmuring: "Violet, orange, red; that is his 'I.' Now yellow, orange, blue—that's 'book.' Green, yellow, green, yellow—this one is going to be 'Spaceship.' He deliberately sends much more slowly now than before; he took our tempo from our screen; I think he wants us to understand. Red, blue, orange, red—that corresponds to his name for us: 'You' plural, I suppose."

"Or 'You morons,' " Davis suggested morosely.

When it was over, Holm scratched his head and stared at each of the scientists in turn. " 'VOR, book, spaceship, you, more-than-twelve, machines, city'?" he recited. "What do you make of that?"

"Nothing," said Davis. "What sense can you make of anything without verbs?"

"He has the concept of number. I see."

"Maybe, but once you get above twelve he sends the same color combination for all other numbers—as if he hadn't gotten beyond counting on his fingers or didn't want to bother. The whole procedure's damned painful.

I keep thinking that there must be *some* sense in these blocks of nouns he keeps offering us, but so far we haven't a single clue."

Kovorsky put a hand on Davis' shoulder. "Patience," he said. "There is a solution somewhere. In time we will find it."

"How much time?" Holm said. "How long is it going to be, before we can question him and get understandable answers?"

"At this rate, never."

"I do not agree. I would say, six weeks to two months longer."

Holm frowned. "Better than I anticipated, I suppose. But it's still too long from the AEC's point of view. Security on the project will be hopelessly compromised by that time."

Kovorsky spread his hands. "Building useful vocabulary is painful, Chris. We cannot deny it. Nor speed it up."

"But, Boris, isn't it just possible that we're going at this the wrong way? Look! Davis already thinks in his heart of hearts that as an organic creature VOR is an impossible proposition. I sympathize. And from what you say I'm tempted to conclude that he's not very bright. Isn't there a chance that he's actually some sort of a robot? He doesn't look much like one, but technologies differ—and in some ways the idea makes more sense. And if that's the case, we're wasting our time questioning him. We ought to be trying to get in touch with his bosses."

"That occurred to us also," Kovorsky said, smiling a little. "But question in essence is operationally meaningless. That is, assume that answer is 'Yes'; now what tests would you perform to determine validity of answer? I can think of none which we are not already using on contrary assumption that he is living creature. Besides, Chris, observe: he is not dumb as you say, though he seems to count like dumb; what else he does shows high intelligence. He has volition, can communicate, can adjust, can make choices, is not specialized—

all characteristic of free agent. Does it matter whether he was born or is made? We would deal with him in the same way in any case."

"Besides," Davis said, "if you assume he was made, who made him? Would *we* build a robot with his characterizations, on our planet, even if we knew how? Not on your sweet life! His builders would have to have been some race that could get close enough to him to build him in comfort, and wouldn't mind having him around afterward. Which brings us right back to creatures like him, as far as I can see. If anybody is building VORs, it's probably more VORs who are doing it."

"Did you ask him that question?"

"How could we?" Davis said, startled.

"Ask him how many VORs there are."

It was Kovorsky's turn to look startled. "Can we yet?" he said slowly. "But yes, I think we can. I had been holding that question for later, but maybe we can ask it now."

He went to the keyboard. Holm watched interestedly while he thumbed his notebook and sent the colors down the cable into the tank.

"I am sending him 'VOR one, VOR two, VOR three,' and then starting over," Kovorsky said abstractedly. "If he does not understand, I will extend sequence, but I think he will; you will see, Chris, he is quick. . . . Yes. He says . . ."

The tall scientist's voice trailed off.

"Well?"

"More-than-twelve," Kovorsky said, shrugging spasmodically. "What else?"

Holm was almost sorry that he had asked. One VOR was more than he could cope with.

"What luck with the spaceship?" Davis said, in a suspiciously normal tone of voice. "We mapped the earwhorls and they're wave-guides all right; they transmit, too, all up and down the R-F band. Can't make a thing of the transmissions, but the boys at the field were on the right track. How are they doing with the ship's controls?"

"They have them identified; that's about all. We may be able to fly that ship eventually, but I wonder if we'll ever know *how* it works. The most puzzling thing is the radio-active isotopes in the hull; they're all evanescent —they have short half-lives. They seem to indicate that the ship was radiologically cold before VOR got into it, and the sheer torrential power of his radiation output —particularly his neutron output—induced radio-activity in the hull. If that's so, then his trip took him ten years."

"Yet we know he cannot be from any local planet," Kovorsky murmured. "Proxima Centauri, perhaps? He could be normal only to surface of that sun, not to conceivable planet. No, I like that no better. But if he comes from even greater distance, he came faster than light, without even doffing hat to Dr. Einstein."

"That's what the astronomers say," Holm agreed. "And they say also that the accelerations involved would be beyond the tolerance of any conceivable mortal being."

"What kind of 'mortal being' is this?" Kovorsky said softly. "One completely alien to us in every way, Chris. His energy source will last him millions and millions of years; is that 'mortal' in any sense of term that we use? I say no. Only to look at him tells you he neither 'be's' nor is 'mortal' in our sense; we have no right to apply such terms to him. We cannot speculate as yet about what he is, or what he can do—nor why he came here.

"This I say: we understand at least partially what reactions men show, what capabilities they have. But this? No. On VOR everything is as if from beginning —and in beginning was Word."

Holm was about to yield the point as gracefully as possible; but Kovorsky was not through.

"And when I think," he said, "that there may be thousands, perhaps millions more like him within range of us—no matter how great that range, two hundred or two thousand light-years is only flicker in these transfinite realms—and perhaps they are already on their

way here, or waiting for word from him to start their journey. . . ."

He fell silent, ignoring Davis' startled stare or oblivious of it. Holm waited.

"Do you know, sometimes I think that it would be better for us if we were to destroy him," the tall Slav said, almost to himself. "Destroy him at once—before he destroys us."

Holm looked into the screen at VOR, and remembered the spaceship's fantastically resistant hull.

"Can he be destroyed?" he said.

six

GENERAL EGL looked at the faces around the table as if hoping to see in them some faint muscular twitch which would betray the joke, some scrambling of identities or neckties which would reassure him that it was only a dream. What he saw apparently did not cheer him. He slumped back into his seat, his lower lip wet and pendulous.

"The proposal's absurd," he said, "and quite impossible. I don't know what you could be thinking of, Holm."

"I'm thinking of the danger," Holm said. "What I propose may very well be absurd. But impossible? It's VOR we're talking about. Is he possible?"

Egl grunted and settled even further into his chair, his chin gradually sinking toward his chest. His eyes looked out from under black brows at Holm with a glitter of resentment.

"We can't keep VOR a secret another six weeks to two months," Holm said. "Experience alone should

make that clear. While I was in Grand Rapids last I talked it over with the Pentagon's man, Kaye—and let me say that he gives me about as bad a case of the shudders as VOR does—and he concurs. He says that maintaining secrecy beyond that point may even be actively dangerous."

"Watch out for him," Albers said quietly. "I've had him checked. His credentials are authentic, but his job is largely a blind; apparently he's not so much an intermediary as an informer. The military hasn't given up hope of getting control of atomics back, by any means."

"Thanks," Holm said. "I knew there was some reason why he gave me the creeps. But what matters right now is that he's on my side. According to him, several small but crucial bits of information about the VOR project have already leaked outside the country—or have been ferried out. One of them, for instance, is that the 'VOR Project' is code for research into the Solar Phoenix. In a sense, it's true; VOR does run on one of the Bethe fusion reactions, and we'd give a lot to know how he controls it. The guesses the USSR will pyramid on top of scraps like that are going to be potentially more explosive than the full truth before very long."

"Why?" Abercrombie said.

"Well, Henry, what would happen in this country if it became known that the Russians were fooling around with the Solar Phoenix? Once the word was confirmed, the Pentagon might decide that we'd better hit them at once with everything we had, whether it meant suicide for civilization or not. They might decide that post-war barbarism would be a preferable alternative to having no planet at all left to crawl on. The Russians wouldn't be left any time to explain—and prove—that they were really just examining an interstellar visitor. Do you think *they'll* leave *us* the time?"

"Um," Diamond said. "But why isn't making the affair public sufficient? That's a revolutionary step in itself, these days. And even with the President's approval, that alone would have half of Congress calling for our

scalps. This UN question-bee would call for *advance* congressional approval; it hasn't a chance."

"Bear in mind," Holm said, "that I don't propose to turn VOR over to the UN or anything like that. All I want to see is a sort of world-wide press conference, as soon as we're able to talk to VOR to any purpose. Let scientists of other countries ask him questions. And, just incidentally, show him that we're more or less reasonable beings, united by curiosity, if by nothing else. It might be important to let him know—and through him, the people he represents—that we're not totally insane."

"Even that would be blocked, or hedged," Albers said. "The radicals of the right would still call it 'giving away our atomic secrets.' They'd thumb every law-book back to the Civil War to enjoin the President from doing it."

"If the Justice Department does its homework well enough in advance, they won't have a prayer," Holm said. "Just to begin with, the fissionables-pooling plan provides a precedent. And the anti-UN hysteria isn't quite as strong as it was in the early fifties. It could be done. It needs to be done. I don't see any other course open to us."

"I'm not sure I don't," Diamond said. "I think I agree that we'd better not keep the beast secret much longer. But I'm opposed to giving anything away before I know what it is. Couldn't we wait until we can talk to VOR in private, before we come to any decision?"

"I'm opposed to the UN hearing in any case," Abercrombie said. "But I'd be prepared to reserve judgment on lifting security until we talk to him. Then we can vote more intelligently, it seems to me."

"Sensible," Egl rumbled. "Holm, what do you say?"

"I'll go along, with qualifications," Holm said. Albers shot him a surprised glance, but Holm had already written off the hearing proposal; it had been a blind from the start. What counted now was catching the flying moment of agreement to declassify VOR. "Bear in mind that we can't wait for Davis and Kovorsky to tell us they're ready for us. By that time we will have lost con-

trol of the information in any case. We'll want to tell the world about it *our* way; that means that we'll have to question VOR—all five of us, I should think—several weeks in advance of the optimum time. It will be difficult to question him before communications between us and him are all the way open, but the timing is more important."

"It would seem so," Albers said. A sleepy twinkle was beginning to flicker in his calm gray eyes.

"Will we be able to ask him useful questions?" Abercrombie said.

"Not scientifically useful, I suppose," Holm said shrugging. "But we may be able to find out what we want to know—and what the world will want to know. We can have the whole interview recorded. Then, if we do decide to take the lid off him, we'll have the films all ready to release."

"Hmm," Egl said. "Edited, of course." Egl was photogenic, and his heavy voice sounded avuncular and wise even on poor tapes; perhaps he was already thinking of the effect the picture would have on his future. There was a faint film over his eyes which convinced Holm that Egl was ready to do his Poor Bit toward recapturing Kingston for the Administration.

"Of course," Holm said. "That's the beauty of it. If we do decide to release the story, we'll be able to release it the way *we* want to—not the way accident takes it."

"That seems more sensible to me all around," Egl said. "What do the rest of you gentlemen think?"

They were unanimous. VOR was launched on his crooked course into the general knowledge of the world.

They were all there in the control bridge of the Grand Rapids plant: Davis, Kovorsky, Egl, Diamond, Abercrombie, Albers, Holm—and Kaye. The five commissioners and the Pentagon's observer sat in a rough semicircle around the big master screen, watching intently while Kovorsky looked into the transmitted face of VOR. The creature was sitting down now: a physical

symbol of the progress the two scientists had made in communicating complex ideas to the creature.

The device for transmitting messages into the tank had been much simplified since Holm had seen it last. It now had only three keys; the primary colors had turned out to be sufficient for intelligible conversation with VOR, though certainly they did not encompass any of the subtleties visible in VOR's own "speech." The simplification made for much greater speed.

Davis was tapping the keys now, sometimes singly, sometimes two together. A pause, and then on VOR's face the colors flickered, passing in rapid succession. Blue-green-yellow-green-red . . . orange-red-green-green-violet, with the merest flick of hot white between the repeated colors . . . red-yellow-red. . . . The television camera hummed softly, recording it all. An announcer's voice murmured caressingly in the background, reading from the script prepared by the AEC's public information office. It was, Holm thought wryly, going to be a Production—if it was ever released at all.

"Very good," Kovorsky said. He grinned at Holm, then at the rest of the commissioners, apparently excited against his will. "I had not thought we would be so far along when you gentlemen gave us this date. But already we are getting somewhere."

"What was the key, Boris?" Holm asked.

"It all hinged on concept of *'not.'* 'Not-man' meaning inhuman; 'more-than-twelve man not-you' meaning people on other planets—there are many such, it appears. Oh, it was crucial. Once we managed to establish that idea, verbs were easier. We have little as yet, you understand, but compared to month ago it is large amount. We are still passing down written list of questions you submitted."

VOR sat motionless in the bucket-seat. The colors flowed, then ceased. Davis frowned at his notes. Kovorsky joined him and they held a muttered consultation. The television camera tracked them avidly. Egl prepared his profile so as to show it at a slightly better angle in the next shot.

"Summarize what you have for us, Boris," Abercrombie said. Except for Holm, he was the only commissioner who knew Kovorsky personally; they had had professional contacts in the old days.

"We first showed him projected star-maps," Kovorsky said, clearing his throat, "and tried to make him understand relationship they bear to our own sun. With this there was no difficulty. He marked on map, incidentally, existence of large planets in our system outside Pluto's orbit—planet roughly half as large as Jupiter, with four satellites. It is difficult to convert his coordinate system into ours, but Clyde Tombaugh is checking this now. He says VOR's data may explain irregularities in Neptune's orbit never satisfactorily accounted for by discovery of Pluto."

"Most interesting," Egl said. "Hmm."

"Next," Kovorsky said, "we asked him to point to star of his own origin. His answer was, 'VOR star not-map.' We have taken this to mean that his star does not show on our charts—that, therefore, it cannot be seen even with high-powered telescopes. This is very tentative, incidentally; very faint stars are not marked on charts, and we think surely he did not come from outside our Galaxy. We are printing Schmidt-survey plates on pyroceram fiber and will try that question again."

He paused for a moment, "Nevertheless, gentlemen, VOR came here from astonishingly long distance in his all of ten years' trip. That is clear."

Holm nodded gloomily. It was no more than he had expected. It was depressing, however, to hear it confirmed from the creature himself.

"We next asked him," Kovorsky said, "what he ate—that is, where he obtained energy we get from oxygen and food. His answer was, 'Star heat.' This immediately ruled out cosmic rays, since as we know these do not originate in stars. Answer appears consistent with our results, which indicate he runs on sixth Bethe reaction."

He looked into the screen and then back at Holm. "He is now ready for further questions; it would appear

that some sort of communication is possible. If any of you gentlemen would care to interrogate him now, Dr. Davis and I will translate and interpret."

Abercrombie leaned forward still farther, until it seemed that his lean buttocks would go off the edge of his chair entirely. He appeared to be quite oblivious of the intermediaries between himself and VOR.

"How long," he said, "did your trip take?"

Davis' machine clattered. Stolidly, VOR flickered back.

" 'Not word,' " Kovorsky said. " 'Long, short. Space, time.' "

Holm found himself grinning tightly. "What did you expect, Henry?" he said. "The creature's a relativist, just like you and me."

Ignoring him, Abercrombie said tensely: "How many of you are there?"

" 'More-than-twelve,' " Kovorsky interpreted. "We asked him that before, Dr. Abercrombie; reply is there on your briefing-sheet."

Abercrombie sat back and began to fumble with the legal-length pages of the brief, but apparently could not find what he wanted. He looked up again. "Are you all on one planet?" he asked VOR.

The colors flashed briefly. "He says 'No,' " Kovorsky reported.

There was a brief pause. Then Holm said, "Davis, ask him if his people are all like himself?"

"I can't," Davis said. "That's too complicated. You remember he said there were more-than-twelve VOR's; that's the best answer we can get at this stage of the game."

"Ask him again in context," Holm said. Davis tapped at the keys. VOR said, "More-than-twelve."

"You see?" Davis said.

"Can his ship go faster than light?" Kaye put in, with a touch of impatience.

"Yes, no," VOR said through Kovorsky. "Light more fast. Ship go around light."

"That's about what we expected," Davis added. "It

seems to indicate some sort of transfinite drive. I'd like to point out that it's hopeless to ask him technical questions until we've made more progress; we just don't have the vocabulary in common yet."

"Ask him," Albers said, "if there's anything *he* wants."

Davis stroked the keys deftly, and Holm watched him with a curiosity which almost overrode his anxiety over the possible answer. The concept of "want" was a delicate one. How could Davis and Kovorsky be sure that VOR agreed with them on its meaning?

But the keys had barely stopped clicking when a stir in the small audience jerked Holm's eyes back to the screen. VOR had arisen from the bucket-seat. His multiple eyehoods shuttered back and forth over the three dead-black eyes with a fluttering sound which came clearly through the audio circuits, a sound like the passage of a flight of swallows low over a river. He took a step forward.

Egl drew back, his chair tumbling over. Diamond was also on his feet, but he at least seemed to remember that this was only an image he was watching. Albers and Abercrombie seemed frozen to their chairs, as was Holm himself. Only Kaye, his violet eyes wide but strangely blank, leaned closer to the screen. Aha, Holm thought irrelevantly; that's the secret; he's wearing contacts with iris-masks on them—

After four steps, VOR stopped, his face now filling the whole screen. Colors marched across the irregular organ in his face.

Kovorsky took the reply down and stared at it. Then he began thumbing through his notebook. The announcer's voice had stopped; Holm could plainly hear Egl's hoarse breathing.

Kovorsky went back to Davis, and the two argued briefly, heatedly, under their breaths. Even in the silence it was impossible to understand what they were saying, but to Holm even the tones of their voices were ominous: they were really quarreling, not just disputing a point, and quarreling with audible bitterness—

Kovorsky straightened and faced the restive commissioners.

"He says—" He stopped again and looked hopefully at Davis. The scientist turned a stony face away from his colleague.

"Out with it," Kaye said. "What does he want?"

"He says," Kovorsky said, *"'I WANT DEATH.'"*

There were nine men in the AEC office: the five commissioners, plus Marty Petrucelli, Davis, Kovorsky and Kaye. Kovorsky was talking; Davis was slumped in his chair. Every so often, Holm noticed, Kovorsky would turn to look at his colleague, while still ostensibly addressing the others. Thus far, Davis had refused to return the look; was the usually sanguine, voluble Davis actually sulking?

"Dr. Davis and I have some signal advances—excuse me, I intended no pun, this time—in communicating with VOR," Kovorsky was saying, "since he made his first declaration two months ago. Now—"

He paused, and his dark, weary eyes scanned all their faces earnestly. "Now I feel that time has come when we must decide question of greater import than any we have been putting to VOR, on behalf of government and various scientists. It is of course question raised by VOR himself, but now is close to critical time when answer is needed.

"So you must decide, gentlemen—I say this in all seriousness—whether Dr. Davis and I continue to work out base of communication between ourselves and this entity, or whether instead we should bend all our efforts toward granting his request. That is, toward finding means of destroying him."

Egl frowned. "What makes the decision so pressing, Dr. Kovorsky?" he said.

"I will tell you," Kovorsky said, "but I report only my own opinion, I speak for no one else here. That VOR wishes us to kill him is beyond doubt; he understands concept of death and is at pains to be sure we do."

"How can you be sure of that?" Egl said.

"Dr. Davis and I simplified his answer of two months ago," Kovorsky said grimly, "for benefit of laymen. What he actually demanded was to have his entropy reversed. In living creature this is demand for death; only life shows negentropy, of all processes in universe. He wishes us to kill him. That is his sole purpose in coming to Earth. He is apparently unable to kill himself. He believes himself to be both immortal and invulnerable; he wishes us to add clause reading, 'barring accidents'—and then to be that accident.

"We have asked him whether or not all his race is immortal. He says no, but that his *class* is immortal—"

"Class?" Egl interrupted again. "You mean these creatures have a class system? Excuse me, Dr. Kovorsky, but Marxism from the stars—I mean to say—"

"No, no. 'Class' is mathematical concept, not economic. He has tried to tell us why his class is immortal, but his explanations are difficult to follow, because root assumptions of his language are not like ours. In many ways his color-code is more difficult than Zuñi—much more difficult than Nahuatlian or Athapascan."

"Better hew to the line, Boris," Holm said, noting signs of boredom beginning to renew themselves on Egl's face.

"Pardon. Very well. From what VOR says, it appears that he was *made* immortal by other members of his race and sent out to roam among stars. We have guessed that this was done as punishment, hence perhaps to his race VOR is criminal; but since this is our first guess it is probably wrong. We also wondered why immortality should be regarded as punishment, but our only answer is that VOR wants it ended. If we seek reasons, perhaps story of Tithonius offers clues. Or perhaps not.

"In any event, we have learned that Earth is not first world he has visited in this search for death. He has encountered many planets in his wanderings—more-than-twelve, if you please, gentlemen—peopled by intelligent beings. He says all these were 'EVIL,' *böse*, what you will—concept is clear, whatever we call it. They

were evil because they failed to give him what he seeks: death.

"If we had to do with human being, I should say that by now he must be becoming desperate. Since we have not, I say only that we cannot afford to take chances with creature of his powers. We cannot predict what he will do, any more than we can tell how he thinks. But precisely for that reason, we must act now. What little any man knows about VOR, I know—I, Boris Kovorsky. And I say that consequences to humanity, should you decide wrongly, may be dreadful."

He sat down abruptly, like a crane that had pulled up its other leg by mistake. In the ensuing silence, Holm had time to think grimly that Kovorsky's pitch had been made to a poorly-assessed audience. The consequences of *any* AEC decision could be dreadful—even the small decisions. The commissioners got up with that fact in the morning, ate lunch with it at noon, and lay in their beds with it at night, listening to the clock tick away at that eternal, yet all too short last minute before midnight. If they allowed it to become the most important of all the facts they had to deal with, and from which they had to decide, no one of them could have stayed six months ahead of catatonic schizophrenia—no, not even Egl.

Yet nobody, least of all Holm, could have persuaded Kovorsky that influencing a body like the AEC was a kind of game, like poker. Seated around the table were five players, each one of whom played for his own personal advantage, as each one defined the term: Egl, for the Administration; Abercrombie, for the scientific community; Diamond, for the public (read "private") utilities; Albers, for the survival of man; Holm . . . for Holm, and let someone else explain what being for Holm might mean; he had never managed to get it formulated to his own satisfaction.

Or the five might be divided more simply (for Kovorsky's purposes) into two groups: political opportunists —Egl and Diamond; and technical specialists—Holm (government) and Albers (science). That left Aber-

crombie, who belonged to both groups, as a tie-breaking member. But regardless of how Kovorsky might have chosen to treat that problem, he would have had to remember that it was only a game; to remember, in other words, that not a man on the commission, not even Egl, would consciously play against the others as an expert *at the game itself*. Only a man who believed that the potential deadliness of the decision involved was the most important fact about it could play that way. That man, today, was Kovorsky; but he had failed to play his cards right.

Diamond stirred restlessly in his chair. Before he could speak, however, Albers said quietly: "Just what are you afraid of, Dr. Kovorsky?"

"I am afraid," Kovorsky said, "that if we fail to destroy VOR, he will destroy us. I thought I made that clear."

"Come now," Egl said. "Easier said than done, isn't it, Kovorsky? We're not living in H. G. Wells's time. Hate to think of what would happen to Wells's Martians if they tried to raid us these days."

"But what will you do about VOR?" Kovorsky said. "He *is* here. And is no Martian."

"Well, after all. If he really means to make trouble, we could bomb him. A nominal A-bomb, even a tactical one. I think that would be sufficient."

"More than sufficient," Holm said caustically. "Pure suicide, as a matter of fact. You haven't been keeping up with things, Egl. Didn't you see our report to the UN on our tests? An A-bomb that included VOR in the fireball would step up his own low-grade fusion power source enough to generate a five thousand megaton explosion. That's enough to consume the whole of this continent and kill everything else on Earth, even the deep-sea fish, from the concussion alone. It would also almost surely rip away half the atmosphere, poison the rest, and maybe even knock the planet out of its orbit—but there'd be nobody alive to care."

"That sounds to me," Egl said stiffly, "like one of

those scare reports the *Bulletin of the Nuclear Physicists* is forever circulating."

"Maybe it does. It happens to be our own, this time. But for that matter, when was the last time the *Bulletin* was wrong? It was Rapp's report in the *Bulletin* that forced your predecessor to publish the facts on U-bomb fallout."

"Please," Abercrombie said. "This is getting us nowhere. The debate on our report to the UN is all in yesterday's *New York Times*; no sense in rehearsing it here. I think we all understand that General Egl is too busy to keep up with the papers. We all are."

"All right," Holm said. "But it had damn well better be clear that bombing VOR is no solution. You've only to look at the USSR's reaction to see that. In the first breath Erdsenov said we were lying, trying to blackmail the rest of the world with 'atomic extinction'—and in the next breath he put in a resolution to ban the use of nuclear weapons against VOR 'forever.' He believes us, all right."

"There's no reason," Egl said stiffly, "why we all have to be so credulous. Kovorsky's opinion is still only an opinion. Dr. Davis, I think it's high time that we heard your side of the story."

Davis stood up hesitantly. He was still looking anywhere else in the room but where Kovorsky sat.

"What I think is this," he said slowly. "What Boris says is perfectly true as far as it goes. Sure, VOR is dangerous. If he decided he didn't like us, he could do us a hell of a lot of damage—even if he didn't do anything worse than go on a walking tour of the country. Any attempt on our part to stop him would do as much damage as he'd be doing. If he *really* lost his temper, he could tear us apart, not only by himself, but with his ship—there are almost surely weapons mounted in it.

"Very well. Atomic research is dangerous, too. I shouldn't have to remind this Commission of what happened at Chalk River, or the way George Weil's prediction of the 'maximum accident' came true with the La Plata blast. But we're not folding up our nuclear

labs and quitting because of that. All research consists of taking chances, and there's no such thing as standing still. You either go ahead or you backslide; there aren't any other choices.

"That's the way it is with VOR. He's not just an object of research, he's a whole field of study in himself. He's our first interstellar visitor. He's brought with him a tremendous mass of new data, and we haven't touched most of that data yet. He's going to give us a new biology, a new physics, a new chemistry, a new astronomy—maybe a new psychology and sociology to boot.

"So, as I see it, it's our plain duty as scientists and as human beings to continue to study him, whatever the danger. To destroy him out of hand would be insane."

He sat down, determinedly meeting Kovorsky's sad gaze at last.

"Do you think the La Plata blast was a good thing?" Diamond said.

"No, of course not. I do think it was a good thing that we didn't close up shop because of it."

Egl frowned and pulled at his chin. Plainly, Holm thought, the general was thoroughly at sea. At no time during his tenure had he quite realized that more than half the scientists working under the AEC had been debating this same question: how great was their responsibility to protect ordinary people from the consequences of their work? How could the responsibility to pursue the truth be balanced against it? Now it was being thrust into Egl's lap, and Egl was caught flat-footed with no attitudes of his own toward it.

"Lieutenant Petrucelli," Egl said. "What have you to contribute?"

Marty stood up, with a hesitant look toward Holm. He seemed to be feeling a little sheepish in such high-octane company.

"Not very much," he said. "I'm familiar with VOR's ship, though. It does mount weapons, of that I'm sure; some of the controls clearly release directed energy outside the hull. As for destroying him—well, it's my guess

that it's possible. 'Indestructible' is just a word, like 'immovable' and 'irresistible.' They don't any of them mean anything. It's possible to form them in English, so we think that something that corresponds to them has to exist, but I don't think anybody has ever found such an object."

Kovorsky's head turned slowly toward Marty, his dark eyes blinking with surprise.

"What matters," Marty continued, "is whether or not VOR is destructible *for us*. We could destroy our own world if we wanted to, but I don't think we want to. If you want to destroy VOR, you can do it. Whether or not you want to is something else again."

Bravo, Holm thought silently. That ought to teach Egl not to try palming his own ignorance off on the nearest bystander. But of course it won't.

The Pentagon agent who used the name of Kaye was also examining Marty, through his motionless, undilatable iris-masks. He said at last:

"I have something to contribute, General Egl. I'm not very sure Lt. Petrucelli's discussion of VOR's destructibility is informed. It happens that I know something about the problem. My staff and I have run some tests."

Both Davis and Kovorsky leaned forward in astonishment. "When?" Kovorsky said, while Davis demanded: "What tests?"

"We managed to arrange for one shift at Grand Rapids when only my staff was on duty," Kaye said. "I was interested in finding the answers to some questions which you two hadn't seen fit to ask—for reasons of your own which also interest me; I assume temporarily that they were very good reasons. We used your own notes to ask the creature if we might try some more drastic measures than you had tried. He said that he was in accord, so we went ahead."

Kovorsky and Davis seemed stunned. Holm said, "Kaye, you have my personal word that you'll pay for that. I've been watching you a little. You are going to go out of this room with a security-risk label you'll carry

for the rest of your life. The same one you pinned on so many other people."

"I have Q clearance," Kaye said, turning his unreadable eyes back to Holm. But his voice seemed to have lost some of its droning self-confidence.

"What did you do?" Davis broke in, almost shouting.

"Well, first we tried a cutting torch, manipulating it with the waldo. VOR's hide responded to that even less than the hull of his ship had. The spot under the torch heats up to the temperature of the flame, but its other properties—strength, hardness and so on—don't alter."

"What did you expect?" Holm said scornfully. "There's seven million degrees Kelvin on the other side of that hide. Why should it notice a torch? When did you last cut yourself with a lukewarm washcloth, Kaye?"

The agent ignored him. "Then we tried the cyclotron, and a little bit later—it took a while to rig a suitable series of reflectors down into his chamber—the linear accelerator. We thought a concentrated, high-velocity beam of heavy particles might disturb his metabolism a little—"

"You're lucky it didn't," Davis said grimly.

"—but it just made his skin fluoresce slightly. Next, we got a semi-portable machine rifle with a silencer on it into the chamber. That didn't even jolt him, even at point-blank range. We finally gave him a shell in the belly from a dismounted pom-pom cannon, after we shielded all the sensing instruments in the tank from shell-fragments and ricochets. Again, no result. We would have tried a heavy naval rifle next, but the conditions didn't permit it.

"Since then we've analyzed the results—we had plenty of meters running while the tests were on—and have come to some conclusions. They show that VOR's hide is stronger than undislocated steel, harder than wolfram carbide, electrically a perfect insulator, chemically 100% inert—and perfectly elastic, which means that there's no known mechanical shock it can't take. He can't even be knocked over, because he runs up his

mass—hence his inertia—apparently at will, and can do it in something under five microseconds.

"In short, it would be futile to try to destroy him. It can't be done. The Pentagon has asked me to announce that it opposes any further tries."

"The Pentagon ought to be scared green by your stupidity, instead," Davis said furiously. "Obviously nobody in your crew has the faintest real notion of what goes on inside VOR's hide. The temperatures and pressures in there are so great that we can't begin to imagine how he keeps them under control. Suppose one of your stupid bullets *had* gotten through to them? The whole goddam state of Michigan would have been wiped off the map in less than a second!"

"And if your cyclotron had worked," Holm added, "the explosion would have been at least as big—maybe as big as the one bombing him would produce. When you get back to the Pentagon, Kaye, better turn in your key to the executives' toilet. I don't think you'll be needing it any more."

The masked eyes did not blink.

"When I go, you go," Kaye said. "I have a dossier that deals with you, Holm. If you press me, I may use it."

"The hell with your dossiers. Politick on your own time. If you've got nothing more to say about VOR, shut up."

"That's enough brawling," Egl rumbled. "Stop it, all of you. Kovorsky, what's your rebuttal to all this?"

"I will repeat what Lieutenant Petrucelli said," Kovorsky said, white-lipped, without rising. "Mr. Kaye's methods were as moronic as they were underhanded—but nevertheless, VOR can be destroyed, and should be destroyed. If it is true that we cannot destroy him without destroying ourselves—which I think is possible—then we will have to find another way."

"Suggest one," Albers said.

"Communication, perhaps," Kovorsky said quietly. "We may be able to find out precisely *why* VOR wants to be destroyed. To understand nature of problem is to

understand nature of solution. We have some factors in our favor there. Assume VOR is living creature—"

"Isn't he?" Albers said, startled for once.

"How can we know? That problem is not important anyhow. Assume he is living creature, nevertheless, and you assume also that suicidal mentality is diseased mentality; that is axiomatic. Organism which seeks death as primary drive cannot perpetuate itself very long—and not even absurdly tough organism like VOR. Or, assume VOR is instead construction, machine, robot, what you will; if so, he is deranged—not operating as designed."

"Why?" Holm said.

"Observe, Chris: he wants death. If he is designed to want death, it would be most simple and direct for him to come to Earth and begin to lay it waste. Surely we would try to kill him as fast as possible then. But he does not. Instead, he establishes contact with us and *asks* us to kill him. Why so indirect? That is what I want to know. In machine designed to seek death, his cooperativeness is insane; and as machine he is clearly complex enough to be subject to personality aberrations. If he is *not* machine, he is suicidal; Q.E.D. Either way, there lies his weak spot, and there may lie our only hope for our own lives."

"You might as well continue to hit him physically while you're at it," Kaye said, apparently quite unaware that he was reversing a decision he had identified only a little while ago as the Pentagon's, not his alone. "We could tie him down in a Pacific atoll and let him burn himself out boiling the water, maybe. Or maybe we can just shut him off—whether he's a machine or alive wouldn't matter if we could find a vulnerable spot. How about his eyes? They look vulnerable. We might be able to get through them into his brain with a vibratory drill, if his brain is in his head."

"That is possible approach," Kovorsky agreed, mollified. "Or we might immobilize him. Seal him underground in lead room, where no light, no radio waves, nothing could reach him. Keep room poured with

granite—water surely would be out of question—to assure even temperature over all his skin. With no meaningful signals to interpret, he might think himself dead—"

"You're both crazy!" Davis shouted, springing to his feet and dumping his chair over. His face was flushed in patches; his normally pink scalp was as white as parchment, drawn tight over the fitted bones of his skull by the distorted muscles of his face. "This is the greatest thing that's ever happened on this planet! We're going to get space flight out of it, a key to ultrahigh-temperature physics, God only knows what else! VOR will give it all to us if we handle him right! And you—you're going to destroy it all at one stroke!"

"Easy," Holm said. "Take it easy, Davis."

"Not on your life. The stakes are too big. These guys are all set to destroy VOR before he's made one single threatening move. Out of sheer fright, that's all. I won't let it happen." Davis pointed a shaking finger at Kovorsky. "Boris, you were a friend of mine. I thought you were a scientist, too—a great scientist, a man I could look up to, a man I could pattern my career after. But—"

"Davis, *shut up!*" Holm said.

"Don't shut me up. I know a Judas when I see one. Boris, do you know you're betraying every scientist in the world? Not just me, but the whole tradition of science. And why? Because you're afraid! Boris Kovorsky, timid scientist! The scientist who takes sides with informers!"

Albers reached up a large, bony hand and took Davis by the shoulder-pad of his jacket. "No more," he said grimly. "Sit down, Dr. Davis."

"Thank you, you are little late," Kovorsky said in a thick voice. "I have heard more than enough. This man calls *me* traitor—he that would murder his fellow men to satisfy technical curiosity. I will satisfy him. I leave my interest in this monster from space to him. Let us see what he will do with it. I want no part of it now;

I will say no word to VOR again, my part in this project is ended. I bid you all *adieu.*"

Egl was pounding on the table as the chairs scraped back. He might just as well have been pounding a wet drumhead with a lamb's tail. Over the noise Abercrombie was trying to ask what had been decided. Kovorsky, far gone in fury, was halfway to the door, held back only by Diamond; he had relapsed for the first time in many years into explosive Russian, and Kaye—the sole man still sitting at the table—was taking down every word in his notebook, the tip of his tongue protruding slightly between his lips in an expression so close to lust as to be unworthy of another word.

Holm saw only this much while trying to fight his way around the table and get between Davis and Kovorsky fast enough to reconcile them, if he could. He failed; and as he turned to watch Kovorsky's stormy progress toward the door, he caught also a brief glimpse of Marty Petrucelli standing off to one side, his face alarmingly wooden and uncaring.

Too late. Again.

Then the meeting broke apart into chaos.

seven

THE AIR FORCE scheduled its conference on the flying of VOR's ship for eight o'clock in the morning, apparently having decided that this was the most inconvenient time for everyone concerned and hence hardening to the moral fiber. Marty arrived at the AF's administration building on the field—an H-shaped, one-story clapboard structure which had been run up next to the larger of

the CAP squadron's hangars—without having had as much as three hours' sleep.

As far as he was concerned, the problem was closed out; VOR's ship could be flown. The complex wave-guiding plumping inside it had provided the clue. Evidently there was no control board. Instead, VOR's "ears" had broadcast his instructions as electromagnetic pulses down all those tubes; once the tubes were sorted out, it was relatively easy to assign cueing frequencies to them and rig signal generators at the appropriate inputs. This multitude of peeping little oscillators was of course not a substitute for the guiding brain of VOR himself, but only a substitute for his radio-frequency "voice"; the brain would be supplied by a human mind, working by remote control from the ground, directing what oscillators should peep and in what sequence. Practically it was complex, but in principle it was simple enough—once it had been worked out.

Yet he had been unable to fight off alternating tides of anticipation and anxiety, each one leaving him stranded farther up on the gritty beaches of tension, at the thought of flying that ship. Directing an air-craft—or a space-craft—by remote controls from a safe station on the ground should be very different from mounting the wobbly air in it himself . . . and yet he was none too sure that it would seem very different on the morrow. He had lived with the denial too long; it might now be categorical.

In addition, the early time set for the conference meant that the several visitors who were scheduled to attend it had to arrive the night—or the morning—before. The Civil Aeronautics Board member hit the field at midnight in a Cessna with two bellowing 245-horsepower engines, one of which backfired deafeningly and repeatedly while idling. The two officers from higher echelons of CAP chose—since they were coming from other parts of Michigan rather than from the District of Columbia—to schedule early morning flights so as to arrive in time "to have breakfast with the men"; both

had to be talked down through a thick morning haze, one at 0500, the other at 0615.

Pat was not in the tent; she was—somewhere else. There was that elliptical thought, too, to retrace and retrace, from one epicenter to the other, and back again. His disgust and anxiety overwhelmed him.

As a result, Marty slept through breakfast and arrived at the conference half an hour late. By that time, as he could hear in the corridor fifteen feet away from the closed doors, it had already begun to degenerate into a shouting match. Al Strickland's voice in particular kept hammering down the square wave-guide of the corridor, the words blurred beyond recognition, yet each one as buffeting as a concussion.

Marty winced and opened the door. Everyone turned to look at him, in a sudden and complete silence.

"Sorry," he said. "Overslept." Let them chew him out if they wanted to. He could always resign. Thank God.

But apparently nobody wanted to. The man at the head of the long table—Major Mendes, the AF liaison officer for CAP—said: "You've earned a little sleep, Lieutenant Petrucelli, but we need your advice. Sit down and let's see if we can get back to the subject. Everybody simmer down a minute; we're not making much sense."

In the renewed silence, Marty found a chair and identified the people around him. Besides Mendes, who was a reasonable man whose only serious drawback was a suspicion that VOR was an enormously expensive hoax, the brass included: Lieutenant Colonel Packenheimer, the operations officer from Group, a pilot since the old barnstorming days after World War I and now somewhat hardened in the brains; Major Voss, the AF's commanding officer from the field, a highly and expensively trained cipher not yet out of his crew cut; the CAP colonel from Wing, unknown to Marty, but wearing many CAP service ribbons and few others, a sure sign of no regular armed forces service worth mentioning plus a bad case of ribbon-happiness; and Harry

Hartz, who at the moment was wearing his most commanding high-brass expression.

There were two civilians. One, of course, was the CAB man. The other was Dr. Enslow, one of the civilian scientists with whom Marty had worked on VOR's ship: a big, stocky man, with a surprisingly high voice and a loping walk and no patience whatsodamnever. He spoke first:

"I want to get one thing clear," he said. "If I'd known that Lieutenant Strickland was cherishing the hope of a personal flight while he was working with me, I'd have scotched it. It never entered my head that he'd think it possible."

"The point is, has it entered *his* head that it isn't possible?" Mendes said. "Are you still holding out, Al?"

"Yes," Al said sullenly. "So the ship's hot. A couple of us have been inside there in those air-conditioned lead suits, already. The suits are clumsy but I can manage 'em. I could fly from inside one."

After the first moment of astonishment, Marty could hardly repress a bitter grin at his own expense, as well as at Al's expectations, which were probably no more naïve than Marty's had been. So Al had thought he was going to fly VOR's ship personally?

Al's eyes looked unblinkingly and loweringly at Marty. "And what are you smirking at, hero?"

"Never mind the chitchat," Mendes said sharply. "The plain fact is that those suits wouldn't protect you for more than five minutes in that ship, if I understand it correctly."

"Less," Enslow said. "The anthropomorphic shape of the working space means that we can't get a bulkier suit in there—one with more shielding. As a matter of fact, Major, putting a live pilot in the ship was never contemplated. I'd expected that Lieutenant Petrucelli would fly the vessel from the ground. He knows rather more about the peculiar instrumentation problems involved than Lieutenant Strickland does; that's only natural, since he's a specialist. An ordinary pilot would be handicapped here—he's been conditioned to normal

aircraft controls, and there's nothing of that kind in VOR's ship."

"So *that's* what he's looking so smug about," Al said. with concentrated fury. "Getting even, Marty? Goddam small beer, isn't it?"

"Strickland, shut up," Harry Hartz said. Marty only shrugged. Since the charge was both untrue and beside the point, there could be no point in arguing it. Besides, he decided sadly, the bitch could sleep where she liked.

"I'm taken aback all over again," Mendes admitted after a moment. "I hadn't been thinking of Petrucelli as a pilot at all. Of course he's listed as one on the T/O, but he never flies."

"And won't be allowed to fly," the CAB man put in, his voice abrupt and gravelly. "He hasn't had his medical certificate updated since 1948."

Enslow leaned back in his chair, grasped the tip of his nose between his thumb and crooked forefinger, cradled his elbow with the other hand, and looked at the CAB man as though he had just said that it was snowing in Potlatch Forest. Marty expected an explosion; but instead, Enslow said quietly, "He won't be flying himself, you know. He'll be on the ground. I hope to make that clear to everybody."

"A current medical certificate is required by law to validate a pilot's license," the CAB man said equably. "There are no exceptions. You can make me feel as silly as you like, Dr. Enslow, but when you're all through abashing me, that will still be the sense and content of the law—and I can't change it. Go embarrass Congress. They made the law."

"And the Board has no power to interpret it? Don't give me that."

"I'll give you that as often as I see fit," the CAB man said. "I know the law and the field. We make guided-missile pilots have up-to-date medical certificates, whether they're ever going to be airborne or not. We don't want them to have a heart attack or an ulcer spasm while they've got a missile in the air over somebody's

house. Stick to physics, Dr. Enslow. No medical, no flying. That's the rule. Period."

"The next voice you hear," Enslow said, "will be that of Arthur Godfrey, buzzing a control tower with a bum leg and a medical certificate as extinct as Cro-Magnon Man—"

"Excuse me," the Wing colonel broke in. "I think we can settle this question at one blow, Major Mendes. No member of this CAP squadron can fly this spaceship by *any* method, so there's no sense in arguing about that. One of your own regular Air Force pilots will have to handle the job."

"Why?" Mendes said. "Nobody among my pilots has any experience with the thing. Is this an order on your part, Colonel, so far as your own service is concerned?"

"Yes, I'm afraid it is," the colonel said affably. "The reason is simple enough: gross irregularities. We've discovered that this officer"—he pointed a thick finger at Harry Hartz—"has been wearing senior pilots' wings without any of the necessary qualifications, not even so much as a student pilot's license—"

Harry went gray. "Just a goddam stupid storekeeper made a mistake," he said thickly. "It was observer's wings I asked for. Haven't gotten around to taking 'em back."

"You don't have the flight experience for senior observer's wings either," the colonel said.

"*My* license is legal," Al broke in contemptuously. "And it's not the only one in the squadron, either."

"But your rating isn't legal, Lieutenant. After we made this discovery about Captain Hartz, we ran a check on the whole squadron. We found that Captain Hartz has never sent in a single application for any of the ratings his men hold. He just handed them out VOCO—verbal order of commanding officer. That's a temporary measure which is supposed to be backed by the appropriate applications. It never was. As far as CAP is concerned, Major Mendes, there isn't a man in this squadron who holds a rating of any kind, and we're grounding all of them until their papers are processed

properly. I presume that their new C.O., Captain Hammerkein, will attend to that."

"Captain!" Harry said huskily. *"Hammerkein!"*

Colonel Packenheimer was staring at Harry as though the ex-squadron commander had just stolen his wife. "Harry," he said. "This was the best damned squadron in the whole group. Maybe even in the whole state. How the hell did you let it get loused up on nothing but simple paper work? Were you *crazy?"*

"I was doing fine until somebody got his bowels in an uproar about those damn wings," Harry said savagely. "If this was a good outfit it was because me and Al and a few other guys made it that way. Half the time we had to drag it there. What the hell are a couple of pieces of paper? My pilots can fly—so all right, maybe I can't, but they can. Last year they saved five guys' lives, did you know that? It was in every newspaper in the state. They been doing all right on this spaceship business too, up to now. Who found the damn spaceship, anyhow? We did! If Wing's going to go ahead and wreck us now because we didn't file the right goddam forms—"

The door opened very quietly next to Marty, and Holm came in. He said nothing; he simply stood and listened.

"Nobody's going to wreck your squadron," the colonel from Wing was saying stiffly. "We know it's a good outfit and we give it all the credit it's got coming. But from here on out it's going to operate by the regs. CAP is an Air Force auxiliary, not a collection of barnstormers."

"I'll speak for the Air Force here," Mendes said sharply. "And if necessary I'll ask Major Voss, as field commander, to reinstate the ratings of all the licensed CAP pilots on the field, VOCO, if you please, Colonel."

"You're reversing me?"

"Certainly. If you don't approve, file an appeal—through channels. What you don't seem to understand, Colonel, is that we're here to discuss flying this spaceship. *Not* to discuss whose papers are in what order. There are only two men here who're qualified to fly that

ship, and they're Lieutenants Petrucelli and Strickland. Both of them would be grounded by your order, so obviously your order will be set aside."

"You're likely to hear more about this, Major," the colonel said.

"All right. Bear in mind that technically that ship is government property, and if one of my boys is forced to fly it and wrecks it—because you insisted on grounding *your* two qualified men—the government will be asking *you* where to find another one like it."

The CAB man cleared his throat. "As far as I can see," he said, "nobody on this field is likely to fly that ship for a while yet."

Mendes' nostrils flared and he said nothing for a count of five. Then, quietly: "Why not?"

"First of all, because nobody's bothered to give this field an experimental-range designation, no ship can leave the field without a CAA certificate of air-worthiness, and this spaceship doesn't have one. We do have a license for the vessel as an experimental aircraft, but that's no good at all except over a specified experimental range."

"And second of all, sir?"

"Secondly, does Lieutenant Strickland hold a license qualifying him for instrument flying?"

"Well, Al?"

"No."

"Then he'll be flying no missiles, experimental or otherwise," the CAB man said. "An instrument-flying ticket is an absolute prerequisite to missile guidance. There are no exceptions."

There was a stunned silence. Dr. Enslow looked so disgusted that Marty thought he might be sick.

Then Holm straightened from his slouch by the doorway. Everyone turned to look at him; in the smoky clouds of the argument, most of those who had seen him come in at all had evidently forgotten about it. His face looked as though it had been cut into a mountainside by some sculptor considerably better than Borglum, possibly even as a good as God; his expression reminded

Marty of the flinty disdain of the Easter Island monuments.

"I want this hassel broken up now," Holm said, his light voice cracking out each word like the Mach Two flick of a whip-tip. "That spaceship flies today. It will be flown by one of the two qualified men, and not by anyone else. Any one the AEC finds obstructing the flight will regret it. End of discussion. No questions."

They all stared at him. He stared back, arrogance in granite.

Then he said: "Marty, get Pat."

He turned and stalked out. Marty got up, seething. To be taken out of the meeting while the question of who was to fly VOR's ship was still, after all, up in the air was bad enough—but to be taken out this way, by Holm, was like being publicly exempted from an exam as teacher's pet. He would fly the ship, if at all, not by virtue of his hard study, but because he had influential friends.

And to have Pat ordered out with him was worse, in the long run, than Holm's asking her in public whether or not she wanted to go with him would have been. There was also the question of in just whose tent he would find her.

The trip into town in the command car, chauffeured by an air-man third class, was even stranger than Marty had anticipated, and a good deal more uncomfortable. Pat had spoken only once.

"What does *he* want?" she had said, when he found her in their own tent.

"I don't know, Pat. He's in one of his moods. I can't predict them."

Then they had caught up with Holm, whose notion, as it turned out, was to drive to town and have a beer. This would have been an odd proposal from anyone at ten-thirty in the morning. Coming from Holm to Marty and Pat, under the present circumstances, it was crazy; for Marty, at least, it bore about the same relationship to suicide as 3.2 did to beer. *Nobody* had left the field

for a beer, legally, since the security lid had been put over it; that Al and, no doubt, Pat had sneaked out for a few was understandable, and they might not have been alone in succeeding at it; but to go out openly, under privilege, leaving an airport full of restricted officers and enlisted men behind. . . .

Well, it didn't matter. The real damage had already been done, even had Holm been willing to listen to any such argument.

But what, after all, was Holm doing here? VOR had been both introduced to the public and turned over to the UN, through a series of Holm maneuvers which newspapers all over the country had called Machiavellian (though what they meant by that varied widely). Holm should be shut out of the VOR problem; and though the spaceship was still no doubt a legitimate concern of the AEC, why should Holm still be especially interested in Marty—or Pat, for that matter?

The car passed the now-elaborate encampment at the crest of the hill which overlooked the spaceship itself—the path of Holm's solitary march into the face of death was now a heavy-duty metal-mesh road—and whirred on down an aisle of charred trunks. Holm looked straight ahead.

"What's up?" Marty said.

"I need your advice."

"Why?"

"Because it's yours," Holm said. "It's valuable to me."

"You're welcome to it," Marty said slowly. "But I don't see why you want it."

"I'm just about to be out of a job," Holm said, in his light neutral voice. "An executive job in government is like a balancing rock; as long as the rock stays balanced, people take a proprietary pride in it—but as soon as it shows signs of teetering, they can't knock it down fast enough; it scares them blue."

"I don't see—"

"I didn't handle this United Nations trusteeship of VOR very skillfully, regardless of what you've been

reading in the papers. If I'd done it properly, it wouldn't have been attributable to me. As it is, I'm identified with it. That might very well make me useful on some sort of United Nations AEC—but the AEC I work for is American. Unless I can think of something fast, Kaye will be able to drum up more than enough support for a request that I resign before my term expires."

"Oh." The answer seemed to be relevant only to some question that Marty had not asked; it embarrassed him without doing him any good. "But why me?"

"Well, Marty, I thought it affected you. The Michigan AEC becomes an official entity before the end of the year, and you already know that you'll be on it—if only by virtue of the fact that it's a ten-man commission, which I think is entirely too many. If I can serve out my term on the Federal AEC, I may be able to get you appointed as my successor. You'd be surprised at how closely the Washington press corps associates you with this VOR thing.

"As for me, I want to talk freely to somebody I can trust, that's the essence of it. Somebody who's got no reason to be hyper-cautious about the advice he gives, at least not yet. And somebody who's willing and ready to be paid in kind. Couldn't you use a little advice, Marty?"

Such as how to get my wife back? Marty thought—but the bare possibility that he might have said it aloud made him wish that he had bitten off his tongue instead. He clenched his fists and changed the subject.

"How did the public take the news about VOR? I've had no chance to keep up with the papers."

There was a brief silence. Then Holm began to speak, without any expression, as though he were reciting something he had memorized without understanding, like a saga in Icelandic. There was no public opinion, as such, about VOR. You could find a thousand different opinions. This was all you could expect; the question of VOR was not one question, it was a thousand, it was a whole universe of questions. It tested values in every field of human thought—moral, political, humane,

scientific, take your pick. The break between Davis and Kovorsky was a case in point.

As for the public, the hysteria was perhaps not quite so bad as might have been expected. "Save VOR" and "Destroy VOR" organizations were springing up all over the country, under the most curious sponsorships; there was a tremendous battle going on among the directors of the American Society for the Prevention of Cruelty to Animals as to which tack the ASPCA should take. The churches, too, were splintered; there were rumors of a papal decision in the offing, but nobody knew what it would do. And there was a new Protestant cult, or rather a set of them, that saw VOR as either the Second Coming or as Anti-Christ—both sides drawing their main strength from among Jehovah's Witnesses. And then there were the susceptibles, the people who used to see saucers and claim to have talked personally with their pilots. A woman in Chicago saw a mother VOR and three baby VOR's going through her back yard. There were two books in print already by authors who had talked with VOR, actually and literally. He had told them that the millennium was coming. And the November issue of *The Bulletin of the Nuclear Physicists* had been canceled without any explanation—there were rumors that Lafe Rapp had resigned, and other rumors that said everybody *but* Lafe Rapp had resigned—

"Commissioner Holm," Pat said abruptly. "Why are you telling us all this?"

Holm turned to look at her. At last he said. "Well, Pat, Marty asked me to. And I think you ought to know it."

"I see."

The car pulled up before a bar. "Will this do, sir?"

"Nicely. Grab a beer for yourself. We'll let you know when we want to leave."

It had begun, Holm was convinced, rather badly, but not so badly as he had thought it might. "Actually," he went on, as soon as he was sure the waiter was out of

earshot, "it's a mild form of blackmail. There are some things that I'd like you to tell me."

"Such as what?" Marty said. Holm could not decide whether his tone was suspicious, stubborn, guarded or just neutral. He plunged ahead regardless.

"It's about this flying business," he said, pitching his voice just loud enough to be heard by Pat and Marty alone over the aural hash being diced in the jukebox. "I'm going to have to understand it, and I'm going to have to do something about it. I realize that it's a painful subject and a source of trouble between the two of you—and I want you to know that, essentially, I don't care. What's at stake here is more important than a marriage, or an ego."

Marty, as Holm had half-anticipated, did not change his expression; it *was* stubbornness, then. "I've talked about it until I'm blue in the face," Marty said. "I'm tired of the subject. And I think that it's nobody's business but my own, and Pat's. I've already done my flying for the government, and I think I've earned the right to ground myself."

"I've seen some government service myself," Holm said ironically. "But that black monster in Grand Rapids didn't consult my official history before it decided to land in my lap. And yours."

Pat looked up from her beer, with which she had been making patterns of moisture on the table-top. She was certainly a striking girl. Holm could not recall having met anyone more delightful to the eye or ear, though he had been all through the long lobbying campaign which had led to the release of atomic energy to private power companies; the power lobby had had some glossy women available for anyone who might throw them a vote or a recommendation, but none of them had had, at least to Holm's eye, one half of the beauty or any of the warmth that Pat Petrucelli had. It was understandable that Marty's total concern now would be to hold onto her. And if the rumors at the base had any foundation, he was not likely to make it.

That was, to put it gently, too bad. Civilization,

Holm thought, means personal wreckage. This is its price; that is its definition.

"Maybe," Pat said, "you could start by explaining why you need Marty this badly. He's not an expert, is he?"

"Yes, Pat, he is. Pardon me, Marty, if I talk about you as though you weren't here; maybe that will make it seem less personal to all of us. But even if he weren't an expert, he'd be necessary to me. First of all I need an observer here who knows the story from the moment it began, or from its beginning as far as human observation can know it. Only the members of Marty's squadron can do that; but I need that man also to understand what he saw and to be articulate enough to report it properly. Casner, for instance, is articulate enough, but I'm not sold on his understanding. Like a lot of public relations men, he sees nothing but surfaces.

"There's a political situation involved here, too. Marty is a potential person-with-influence with the AEC, as I've been able to show my colleagues without any difficulty. That makes him valuable to me in backing my recommendations on the VOR affair. I can't explain the various factions on the AEC right now, so you'll have to take my word for it; Marty knows about them, anyhow.

"Similarly, I need an *un*trained observer to advise me. I can get all the high-powered technical help I need, without even having to look wistful about it. A *whole* look, on the other hand is almost impossible to come by. I think Marty understands that aspect too."

"I've thought about all this," Marty said. "But up to now the time problem hasn't turned out to be serious. I've gotten to the meetings and back to the field on time, one way or the other."

"Sure," Holm said. "Because I've been scheduling meetings twenty-four hours later than I should, on your account. The day I needed you in Grand Rapids, I had to wait while you took the Washingtonian from the capital to New York, the Super Chief to Chicago,

and then went ninety miles back the way you'd just come on the Wolverine and got picked up by a staff car in Niles. It was a hell of a nuisance.

"Now it's more than a nuisance. Your flying problem is the direct and only cause of this stinking mess about VOR's ship. You were the man to fly it. We urgently needed you to fly it. And now it turns out that you probably can't. There may well be more and worse foul-ups in the future. Did you think I was proposing to mix into your personal troubles for *no* good reason?"

Marty flushed. "No," he said. "But I wanted to know what the reason was. And I can tell you now that you're wasting your breath. It's not a matter of my being unwilling to fly. I'm willing. But *I can't* fly."

"Do you know? Have you tried?"

Marty looked at Pat, and then back at Holm again.

"I've never told this part of it before," he said. "But I don't seem to have much choice. I never even knew that I couldn't fly again until a year after I was discharged. I was a hard guy to get along with in those days. I was living with some relatives and making their lives miserable. I didn't know where I was going or where I wanted to go. Nobody could say a word to me that didn't turn into a quarrel. On top of all the rest, I'd been put over the jumps by a girl—not Pat—and as far as I could see, the world was against me. I was my own worst enemy, that's for sure.

"But if there was one thing I knew, it was the Air Force. Little by little, I began to get the idea that at least I could join the AF Reserve. I knew that kind of world and maybe I'd be more comfortable in it, at least during training and encampments. So I made arrangements to sign up.

"I was to go to Montague Air Base on a Saturday afternoon to be sworn in. I got there early, and there was a B-17 sitting on the field with nobody in it—a real museum piece, even back then. I thought I'd go on board, just for the hell of it, for old times' sake, or whatever it was I was thinking back then. I got into the plane and crawled up into the nose.

"Then it hit me. The smell, I mean. It isn't a bad smell, and it doesn't resemble anything else in particular. It's just the way a B-17 smells, that's all. There's no other smell like it; I'd know it in my sleep. And all at once, I was scared I couldn't even stand. I went right down on my hands and knees. Understand, Chris, I was scared all the time while I was flying real missions, but never so scared I couldn't function. This was different—something special. I was trembling and my knees were shaking and I was weak and sweaty and sick. I knew there was nobody in the plane but me, but all the same I was sure it was going to take off with me before I could get out of it. I scrambled for the hatch and fell out of it—just fell, like a rag doll—onto the field, and as soon as I could walk at all, I beat it. I never went back."

Pat shifted her position on the hard bench. It was a small motion, as though she had been merely recrossing her legs; but when it was over, she was sitting some four inches farther away from Marty than she had been sitting before. The movement shocked Holm much more than the story had. So Al already had cut as deep as all that?

He killed time ordering another beer and lighting a cigarette. The question now was, how much could he tell Marty about himself? How much good would it do? Dammit, he was trying to make the man his friend —but was *this* friendly?

"You say the fear was something special. Are you sure you never felt it before? Or anything like it?"

"Not while I was flying," Marty said. "Once when I was a kid yes. Never afterward, until the incident I just told you about."

"How did it come up when you were a kid?"

"That," Marty said evenly, "is a family affair. You'd better not need my family. They're dead."

There it goes, Holm thought. And he's right. If he'd told me the second story, I wouldn't know how to use it.

"Look, Marty," he said earnestly. "I think I recog-

nize the symptoms. I'm no doctor, but I've seen the descriptions of this kind of panic hundreds of times. It's common in all the armed services, has been for decades, it used to be called 'soldiers' heart.' Ever heard the term?"

"No. Is my heart—"

"There's almost surely nothing wrong with your heart. The term is a misnomer, a hangover from the first World War. But what you had in that B-17 was a clear-cut attack of it; these days we're calling it 'neurocirculatory aesthenia.' It's a stress response, and that's all it is."

Marty was frowning. Holm could not tell whether he was freezing, or was only puzzled.

"This is a real disease?" he said slowly. "It isn't just all in my mind?"

"It isn't. If we'd been able to chart your heart-beat and your blood pressure when you had that attack, you wouldn't need any further convincing. Sure it's in your mind, to some extent; it's the way you respond to a specific mental stress. But the response is physical. Sooner or later it'd pay you to have the response conditioned out or analyzed out. In the meantime, you can avoid the response entirely by avoiding exposing yourself to the circumstances that trigger it."

"I know that," Marty said. He sighed, as though he had come out at the same door he had come in. "That's just what I've been telling you. I can't fly."

"But Marty, the circumstances are a hell of a lot more limited than you think they are," Holm said doggedly. "Have you ever been in a plane since then? Any kind of a plane?"

"No. I spin props for the boys. That's as far as I go."

"I wish you'd try it. You've got no reason in the world to be afraid of a small aircraft, or a commercial airliner, as far as I can see. If the B-17 smell is different from the smell of any other airplane in the world, where will you hit it again? The B-17 is a museum-piece now; you said so yourself. Your own instincts

told you that. That's why you joined the CAP and ran away from the regular Air Force Reserve. The CAP isn't ever going to ask you to get into a B-17, or any other kind of a bomber. I won't ask you for that either, Marty. If you'll just fly in my Bellanca I'll be well satisfied. And get your ticket up to date; we need you legally able to fly—to pilot. I'll take my chances on your emotional readiness. It doesn't worry me."

In the silence which followed, Holm thought for a moment that he had won at least the opening gambit. Then he saw the expression on Pat's face. It stunned him completely, for it was an expression of the openest kind of loathing, queerly mixed with triumph, being bent upon himself and upon Marty impartially. How could anything he had said have aroused either emotion in her? But he could see them; there they were.

Marty could see them, too, that was equally obvious. His expression was as stubborn as ever; but it now reminded Holm, not of a bulldog or a mule or any other traditionally stubborn animal, but of the face of a deer which had come to the roadside to look at him just after he had first invaded the VOR-smouldering forest. The deer's eyes had been clear and direct and questioning, and evidently it had been no longer afraid of the quenched fire; but it had been breathing the irradiated air around VOR's spaceship for some hours, and did not yet know that it was already dead.

"I've had people talk 'conditioning' and 'analysis' to me before," Marty said. "If there were something physically wrong with me, 'treatment' would be the word they'd use. I'm sorry, Chris, but I still won't fly. If it's a disease I have, it's one I don't want to do anything about. And if it's all-in-my mind—well, it's *my* mind. I've fought it out for myself often enough, and I know what I've decided. I won't fight it again."

"Are you sure you're not still fighting it?"

"Sure I'm sure."

"All right," Holm said, with deliberate harshness. He got up and put money on the table. "There'll be a meeting in Grand Rapids day after tomorrow on this sub-

ject. I'll be there and I'll need you. Get there any way you can. Or don't get there; that's for you to decide. I've done what I can."

Marty slid out from under the table and stood up, his face hard. At the same instant, the whole room shook with a deep, enormous concussion. A window burst inward musically, and then the air was suddenly rushing in the other direction again, swirling with paper napkins.

Holm grabbed for the back of the nearest booth. He was just in time. Another boom followed, making even his teeth rattle.

Marty had thrown himself face down on the floor at the first impact. After the second, it seemed to be all over. The stunned silence in the bar became a murmur, and the murmur erupted into a cascade of excited gabble. The barkeep peered cautiously through the empty window-frame. Marty raised his head. Holm looked down at him.

"That," Holm said, "would be your friend Al, flying too low over the city. Flying VOR's ship; those were supersonic shock waves. You'd better make up your mind pretty soon, Marty."

He picked up his driver and left. He had a last glimpse of the Petrucellis through the broken window. Marty was just getting up off his knees. Pat's head, its back to him, was as rigidly motionless over the back of the booth as if it were impaled on a spike.

There was nothing more that he could do for them, or for himself through them. On second thought, he left them his transportation and hailed a cab.

Marty could not help him any more. No one now could keep Holm company but one Holm, the loneliest man in all the teeming world.

Marty dusted himself off silently, knowing all too well that everyone in the place was watching him. That was inevitable, with Pat along; but this time they were watching *him* just as interestedly; his dive to the floor

had been—temporarily—even more unusual than the presence of an honest-to-God calendar girl.

"Well," he said. "That's that."

"Yes," Pat said. She had not stirred.

"No sense just sitting there."

"I don't feel like lying down," Pat said, between clenched teeth.

"Stop it. When did you ever duck a shell? You don't stay alive standing up. Don't look for trouble, Pat."

"I don't need to look. I've had my fill of it."

"Then why make more? Come on."

Still she sat. The people at the bar whispered. This was finer than any possible mysterious explosion.

"I'll take you out of here by the hair if you don't get up," Marty said softly. "Once you get back to base you can do what you like. I suppose I know what that'll be. So go ahead; if you're through, you're through. But don't make a scene in a bar about it, or I'll lose my temper."

"You're a hero."

"You're a bitch. Now that we've insulted each other, let's get out."

"You don't want me to go. Not with you. You're itching to have me out of your hair. I've known it for weeks."

Marty peered at her through eyes that were suddenly tired and burning. Her face wore the same look of loathing that it had assumed ten or fifteen minutes ago, but there was a quiet triumph in it, too, as though she had suddenly found herself a touchstone. He could not imagine what it was, but no woman wore that look of triumph for any reason but one: she had found a way to blame what was wrong solely on someone else.

"All right," he said soddenly. "What's the riddle?"

"You really don't know?" Her eyes showed a sudden uncertainty.

"I don't know. I'm surprised to find out that I even care. Tell me."

She drew a deep breath. "Sit down," she said, her

voice warmer. "Please. I'm sorry, Marty. Maybe—No, it's too late. But you ought to protect yourself."

"Too late for what?"

"For—you and me. That's my fault. But if you really don't know—"

"For God's sake," Marty said hoarsely. "What *is* it?"

"That man," Pat said in a voice of almost incredible vindictiveness. "I don't know why he's attracted to you, but he is. He's been chasing you ever since this thing began. That kind of thing can be dangerous, Marty."

"Do you mean *Holm?*"

"Of course." Pat opened her handbag and took out her lipstick.

He almost did hit her. He felt as though he were drowning in filth. So that was her touchstone; to shake a man, decide that he is not a man at all.

"I thought you ought to know," she said. "Of course I'm not sure, but . . ." She put the lipstick away. "Anyhow, it's none of my business. It's up to you. I just wanted to tell you."

She got up gracefully and walked toward the door, her firm, sterile hips tipping gently to each step. The barflies pursed their lips and nudged each other.

They sat as far from each other as they could possibly squeeze in the back seat of Holm's command car. VOR's ship was already resting in the center of the field when they arrived, canted deftly, its nose partially buried in the black top landing strip Marty had wangled for the squadron. There was some sort of celebration going on in the mess, which served as a Rec Hall when no meals were being served, and Al's voice boomed crazily through the general roar of sound. It was a little slurred, as though he were already slightly tight. Occasionally one of the mess windows lit with the white silent glare of a flash bulb.

Pat got out of the car, stretching one leg luxuriously onto the field, and then the other. Several grease-monkeys watched her stretch with eyes like grommets. She turned and looked into the car at Marty, with a sort

of sleepy challenge, and walked away toward the celebration.

Out on the landing strip, men in lead suits continued to try to pry the nose of VOR's ship out of the blacktopping. Suddenly Marty saw that Holm was there, too, in the clear bubble-turret of a track-mounted waldo. As the command car roared away, the two men's eyes met across the long stretch of field, and again Holm looked lonely and afraid, and as though he had something important still left unsaid.

In a gray shock, Marty thought: *It might even be true.* And turned his back.

eight

DAVIS GREETED them dispiritedly in the observation room above VOR's tank, the same room in which the Commission had sat when the creature had first expressed his death-wish. Marty noticed, with a sense of shock, that the scientist looked years older than when he had seen him last. His hair was grayer around the temples, and there were haggard lines in his face.

"How is it with him?" Holm said.

Davis sighed, half-turning to glance at VOR's color-organ, which was repeating over and over the pattern which even Marty now recognized was the creature's name.

"We haven't been making very much progress since Boris and I split up," he admitted with obvious reluctance. "We do have the sorter—"

"What's that?" Marty said.

Holm pointed to the screen above the receptor focused on VOR's face.

"That," he said. "Basically it's a Walter differential frequency analyzer that feeds into an IBM vocabulary bank. A marriage of two sciences—electroen-sephalography and information theory, with a little computermanship thrown in. It analyzes VOR's color combinations and flashes the corresponding English words on the screen. One of Shannon's bright boys thought it up.

"It speeds up the work," Davis said. "Or it did for a while. It's limited to the words we already know, that's the trouble. I almost wish Boris were back. He was a genius at getting new words out of this animated rainbow."

He looked at them stubbornly. "I'm still certain that I'm right and he's wrong, understand. But without him VOR just keeps going over the same ground, as though he'd reached the limits of communication with his present vocabulary. It's degenerated now into a three-sentence chain, a sort of paradigm. He won't say anything else."

"Oho," Holm said. "How does it read?"

"He says. 'You must kill me. Weakness is fear. Fear is evil.' I've tried telling him that what we need is more specific information, but it doesn't do any good. It's a hell of a time for him to be lapsing into philosophy—if that's what it is. He's repeated it so often that it's lost all meaning for me, if it ever did have any."

There was a cold chuckle from behind them. Davis turned, and for an instant his face relaxed, and then went stiff all over.

It was Kovorsky.

"I know what he means," Kovorsky said, grinning.

"You do, eh?" Davis said. "Keeping it a secret, I suppose? How the hell did you get in here?"

"With difficulty," Kovorsky said. "One Kaye seems to have issued orders that I am no longer admissible to project. Happily, one Holm issued countermanding orders, so I am here—with difficulty."

Davis stared at Holm, who said grimly: "Did you think I'd let a personal quarrel prevent Boris from

contributing if he should be so moved? But I confess I'm astonished that you did come back, Boris. What's on your mind?"

"I have fairly good idea now of VOR's basic psychology," Kovorsky said, shrugging. "When I have it completely worked out I will destroy him. I wished to see what progress you were making. None, as I suspected."

"I'll see to it that you're not allowed near him again," Davis said, turning red.

"The Commission may change your mind. Have you seen reports? They are sounding much worse. There is crack-up, new mass hysteria."

"We were ripe for it," Davis said. His face was suddenly more drawn than ever. "But absolutely the last thing we ought to do is yield to it—"

"Wait a minute," Holm said. "Boris, what makes you so confident that you can destroy VOR? I don't guarantee to try your method, but if you can tell us—"

"Certainly," Kovorsky said readily. "I am keeping no secret. Answer was easy, when I realized what VOR is. Don't look so stunned, Chris, it was not that difficult. He is military in nature."

" 'Think in other categories,' " Holm quoted softly. "No, I still don't see it. You mean you think he's a robot, now?"

"Meaningless question. He is not typical of race he represents, that is all. For example, he is suicidal; race cannot be suicidal, its technology could never have risen so high in that case. Physically, he is probably different too, but that is matter of small real moment, and that is only meaning 'robot-versus-creature' question has. He is not *thing*—'robot'—but 'process.' Name of process is, 'standard reconnaissance mission.' His purpose, his function is to test our defenses."

"My God," Holm said. "Of course it's possible. Even probable. But what evidence is there for it?"

"His power. We have asked ourselves over and over, why does he need so much power? Answer must be, to send out continuous signal, detectable at home no mat-

ter how far away he wanders. Doubtless his scouting is on rigid schedule. If that signal should ever stop, those who made him will know he is destroyed—and where he was when that event happened.

"Now proceed from there. If we cannot destroy him, then his makers or sponsors will consider attack on Earth worth risking, and will be along on schedule to lay us waste. But also if this is so, it tells us that his makers or sponsors are weaker than he is. He is embodiment of best they have, not of their standard equipment. Do you follow me? Ergo, he *is* robot—and *now* that answer means something. But not just robot. His is also whole navy, *in posse*. You see?"

Holm remembered with unpleasant vividness his early feeling that the creature's steady flashing of VOR while it was not otherwise communicating was like the flashing of a lighthouse; and his later question, in which he had all-too-unconsciously linked the problem of VOR's vast energy output with the problem of communication. His body was heavy and sick with the sensation he had felt all along, that he had been overlooking something crucial for which he would pay, in due course, and which he might well have smelt out with just a little more thought, just a little more attention to the job. The sensation was general and dull no longer, but specific and agonizing.

"I see all right," he said harshly. "What I don't see is what hope you derive from it. They've won; we can't destroy him, and that's that."

"But we can," Kovorsky said. "In fact of his nature lie seeds of his destruction. Observe his revealed scale of values: 'Weakness is fear. Fear is evil.' This is not sane, it is not pro-survival. If he can be shown that *he himself* is weak, he may well destroy himself, as surely he has power to do; no one would release such creature without such safeguard. Thus death-wish can be used against him—and I will."

"Easily said," Holm noted in a flat voice. "Well, Davis? What do you think?"

"I don't know what to think," Davis said, almost in

a whisper. "I've too much responsibility to be a good judge any more. VOR's waiting for something, that's what I keep coming back to. And I'm afraid to know what it is."

"You already know," Kovorsky said mercilessly.

Davis did not appear to hear him. In a voice that was all the more upsetting because it was calm, he said:

"For the first time in my life I have encountered a problem that *must* be solved, and that I cannot solve. I am going to pieces. I can feel it. I think the world is going to pieces with me."

Suddenly he buried his face in his hands. Marty sucked in his breath and stared at Holm, the ground suddenly unstable beneath his feet.

Then the color organ in VOR's face came to life. Hues washed over it in quick succession, replacing the VOR call-signal in both tone and pace. The sorter hummed with electronic satisfaction, and words appeared on the screen, one after another.

WHY

"Look!" Holm shouted, shaking Davis' shoulder.

WILL

Davis looked, and made a small hopeless sound.

"It's come," he said. "It's come."

NOT
YOU
KILL
ME

The colors stopped.

"Answer him," Holm said. "Quick, Davis. Tell him we can't."

Davis' cheeks burned like those of a man in fever. He swung his chair around to the keys of his transmitter; his fingers wavered over them, trembling.

"Quick, quick!"

The keys began to go down silently; Davis mumbled the message as it went down the wires into the tank: "We . . . do . . . not . . . know . . . how."

The colors began again.

YOU
HAVE
NOT
TRIED

"Time!" Holm cried raspingly. Davis nodded. His fingers said: "You . . . must . . . give . . . us . . . time—"

THERE
IS
NO
MORE
TIME

And then, for the first time in months, VOR stirred. He arose from his bucket seat and walked forward into the table of half-melted samples. Not around it—into it. It melted inches ahead of his black ventral surface, and through the glass the heat began to beat up into the observation chamber. Each round footprint VOR left behind was sunk a little deeper into the concrete floor of the tank.

"Out!" Kovorsky shouted. "He is gaining mass—running up reaction—"

He picked up the half-fainting Davis with an ease astonishing for so slight a man and half-threw, half-dragged him to the floor. Marty was down only a second later; though he had not the faintest idea what was happening, five years of war had made it second nature for him to hit the deck when anybody else hit the deck—or sooner, if that was possible.

The juggernaut struck the opposite side of the tank at at least ninety miles an hour—a velocity he had picked up inside less than forty feet of acceleration room. There was no estimating what he weighed by that time, or what his surface temperature had risen to. The impact burst the concrete and steel crystals into molecules, the molecules into free radicals of iron, silicon, chromium, manganese, oxygen, sulfur, molybdenum, cobalt, tungsten. The incredible heat drove the radicals in and out of combination with the air,

with each other, with anything else that came to hand. That whole side of the Grand Rapids plant vanished in a blast that broke windows throughout the city.

VOR was on the move.

Directly over Marty's head, something swung crazily back and forth on a tattered length of insulated line. The air was fogged with smoke and concrete dust, and choking with a score of chemical odors. For a while he could see nothing, and hear nothing but a general roaring. He was dead and in hell.

Then he began to ache abominably, and at the same time the oval of the sorter screen came dimly into view through the murk, a little to the left and far aloft. Some invisible person muttered angrily in Russian. Marty got to his hands and knees.

Slowly, the room stopped rocking. The air cleared rapidly; the roaring was the plant's emergency ventilation system, designed to suck fission product out of the corridors and blow them up a 300-foot stack in a matter of minutes; since the plant was no longer hermetically sealed, it was no longer very efficient, but at least the visibility was improving.

He found that he was bruised all over, but otherwise he seemed to be all right. Holm had been less fortunate. Marty averted his eyes and groped his way toward Davis and Kovorsky.

A tall shelf of apparatus had collapsed on them, but Davis, on the bottom, had been fairly well protected, Kovorsky had borne the brunt of it. He shook the Russian gently; he groaned and rolled over, still swearing, with rubble sliding off him.

"Ugch. *Gospodi!* Who is—Ow. Let me get my foot out. Is Mr. Petrucelli?"

"Yes. Lie still a minute. You got laid open a little with a splinter, I guess. Wait, I'll be right back."

He staggered into the next room and found a complete wash-up plant—now radiologically compromised beyond redemption, but at least the plumbing still worked. He soaked a cloth in the sink, brought it back

next door and swabbed Kovorsky's forehead. Next to Kovorsky, Davis was trying to sit up.

"Thank you," Kovorsky gasped. "That hurts. And you, my friend—"

"I'm all right," Davis said. "My God, this is awful. Boris, forgive me—"

"Be a shut-up, it is not your fault. Mr.—Lieutenant? —Petrucelli, where is Chris, that is what's important—"

"Dead," Marty said emptily. "He was in front of the window—the observation window. The concussion burst open his abdomen. No, don't look. We'd better get out right away."

Davis struggled to his feet swaying. Despite Marty's warning, he looked. Then he broke for the next room.

"I will go get him," Kovorsky said grimly. "He will get over it. We must leave here, we may be poisoned already. And we must follow VOR, we have been stupid long enough."

He went out. Marty explored the hazy, wrecked chamber. The access corridor did not seem to be impassable. In a moment Kovorsky was back; Davis was with him, white-faced and wobble-legged.

"All right," Davis gasped weakly. "All right, I've learned something. I was stupid, but I've learned. Now we *have* to kill him. He's gone to the attack. He's forcing us to kill him. How do we go about it?"

"I don't know," Marty said. "Dr. Kovorsky—"

"I am not ready yet," Kovorsky said. "Besides, I have no authority. We are in your hands, Lt. Petrucelli."

"Nonsense! I don't know anything about—"

"Please," Kovorsky said, wiping the oozing blood out of his eyes with the back of his hand. "We are wasting time. This air is poison, you must know that. And you are Chris' deputy. What do you want to do? Do not waste his death, Lt. Petrucelli. He entrusted you. You are the man."

"There's no one else," Davis said raggedly. "We can't possibly get a Commission meeting assembled here in time to do any good. And they named you Chris' agent anyhow. Speak up, in God's name! VOR

is your problem now. What do you want us to do?"

The very urgency of the moment forced the decision upon Marty without his having to think about it. Obviously they had to get out of there; obviously VOR had to be tracked. It was true that with Holm dead he had no immediate superior in Grand Rapids, and had to get to some place where he had one—which was the most likely of all destinations for VOR, the field in Merger County. As for Davis, it would probably be as sensible to take him along as to leave him behind. After all, the man did know something about the enemy.

They were all in the command car and careening northward behind Holm's tight-lipped, white-faced chauffeur before he thought to ask Kovorsky: "What about you? If you can do anything with VOR, now's the time."

"I need equipment," Kovorsky said. "Given few or so hours, bench, tools, I can make. Best I stay with you. Then, we will see."

Davis took out the notes he had rescued from the scramble on his ruined work table and looked at them anxiously, for at least the sixth time. He had said nothing since the command car had fought its way free of the Grand Rapids fire and police vehicles which had converged on the plant. His expression was strained, and, somehow, hurt. The notes did not seem to console him much; his repeated consultation with them seemed more like a form of nervous fidgeting. It was obvious that his weight of guilt was almost more than he could bear, and that he would be glad to be doing anything, so long as it was action and not introspection.

Feeling a moment of compassion, Marty switched on the command car's radio. The local station was giving nothing but details of how the fire was being fought around the plant, and the networks were not much more informative, but the Air Force channels were being quite explicit. VOR was indeed on his way toward the converted CAP field, his path as straight and easy to follow as a ruler. Thus far he had been directly re-

sponsible for thirty-three deaths—and Marty realized with a shock that until today, this enormously dangerous creature had hurt nobody at all except by accident. Some of the Air Force chatter suggested that several weapons had already been brought to bear on VOR, but it was impossible to tell from the jargon what they might have been; they were all identified by code names, and the report on each was laconic:

"Device Imperator: no show."

"Command HQ, this is Operation Bivalve. No show."

"Device Girl Reporter: No show. Highly unpleasant side-effects; recommend discontinue."

"Device Nadir: effect eleven seconds. No show thereafter."

"Command HQ. Whereabouts Operation Answer? Report!"

"Device Deadfall: no show."

"Command HQ, this is Operation Answer. No show. We are down east-north-east of Niles."

"Command HQ, this is Operation Helmet. We are trying to reform. Acting commander reports two probable hits. No show."

"Device Widget: no show—failure to operate."

VOR was moving slowly, as though to allow everyone plenty of time to obliterate him, if they could. As yet, it was clear, there had been no attempt to use any nuclear weapon against him; that order would have to come from General Egl, now, if it were to come from anyone—and it would be soon that even Egl could give such an order. The whole world was well aware that VOR was himself a walking sun, held in check only by processes he alone understood, and that a nuclear bomb might well destroy his control—

But what if somebody outside the United States decided to take the chance? VOR docile and confined was only an abstract threat—but VOR abroad in Michigan was VOR abroad in the world. That was a crucially different thing. In a Grand Rapids crypt he had been an American monopoly—but in a Michigan forest he was a world-wide disaster.

And still he plodded forward, enveloped in the smoke and flames of the forest fire he carried along with him, the massive head of a raging comet. He was giving everyone a chance. His progress was well under a mile an hour; there could be no question that this was deliberate, considering the blinding acceleration he had been able to use to burst out of Grand Rapids in the first place.

Nor could there be any question about where he was going. He was on the way to reclaim his ship. No straight line in history had ever been ruled between two more obviously significant points.

The command car skirted him widely, but it reached the field hours before his expected TOA all the same. By that time-of-arrival, the car's radio had already made clear to Marty, VOR would not be the only catastrophe they could expect to follow them. The last war the Earth would ever have, the war that would end all life on Earth forever, was thudding massively toward Armageddon to be born.

The last judgment. Perhaps Ezra Childers, who had expected nothing less of VOR than the Second Coming, had not been so cracked as he had sometimes sounded on that subject. He had never sounded in the least cracked on any other subject, for that matter.

The conference room in the administration shack was hotter than blue blazes, and everyone there was in the grip of the jitters, even Major Mendes; one look at his white, drawn face was enough to convince Marty that he no longer suspected that VOR was a hoax. Mendes knew he was in charge now, and he was not liking it. Reality had intruded elsewhere along the line too: the scene here was no longer simply a Platonic symposium, but a room into which actual runners had to bring actual information and carry actual orders out. It was, in short, a madhouse.

Mendes filled him in rapidly. "We've got artillery moving into place all around the field in hopes of enfilading him, but we know from the combat teams'

reports that that won't delay him more than a few seconds. As I see it, we've got to get his ship back into the air before he gets here. He must have good reason for wanting to reclaim it; maybe his destructiveness is limited without it. I don't suppose it'll matter in the long run whether he blows us up at one stroke or just slowly kicks us to pieces—but what we need is a strategy for right now, and the only one we've come up with is to stall him, if we can."

"I concur," Marty said. "Isn't there anything in from Washington yet?"

"Not a thing. And we don't have time to wait. We've got to get that ship up."

Marty looked around the table. Al Strickland was sitting there, sweating sullenly; and Pat was next to him. With a peculiar icy clarity which he had felt only once before in his life—during that passage on one engine through the valleys of the Pyrenees—he saw that Pat was already in terror for Al's life and of her own. Al was afraid as well, but he was still managing to suppress it. When that fear did fight its way to the surface, it was going to be considerably uglier than Pat's, for it would come oozing out of his very pores in a quaking, ectoplasmic jelly of pure selfish panic.

"Why don't you do it, hero?" Al said vindictively, the moment he felt Marty's eyes upon him. "You're the man with combat experience—it says here."

Marty looked at him curiously. He had expected to loathe the man, but he did not; the curiously icy quality of his insight did not permit it. In a way, that was a loss—and it was loss that had made the insight possible to begin with. He, Martin Petrucelli, was the only man in the room who was not afraid, even Mendes was afraid; even Kovorsky, though both were thoroughly masters of their fear. But Marty feared nothing, and the failure to fear told him that he had now lost everything that was ever of any importance to him.

He opened his mouth to reply, but not even the first word was uttered. At the same instance, the room

rocked with the brutal manifold concussions of the 104s.

Marty and Mendes collided at the door; it was Marty who regained his footing first. The AFs new control tower was strange to him and he stayed away from it; he did not, in any case, want to be in the way of fire control. He pounded across the grass to the squadron's old operations shack and clambered up into the small tower the cadets had built, where he snatched the glasses from the hand of the cadet who was on duty.

The smaller tower yielded an excellent view. VOR was coming from the direction of the valley where his ship had first come to rest. The cannonade had begun in that valley, but it was far closer now. So was the head of the boiling column of pine-tree smoke which sheathed VOR, smoke now blacker and more ominous than any forest-fire smoke Marty had ever seen; it obscured the whole sky in that direction. The 104s on the edge of the field abruptly began firing, their reports hitting him so hard in the chest and belly that it was difficult to keep the binoculars focused.

Dimly, VOR appeared. He was about a mile away. There was not much of him to be seen. The shells landing around him sprayed earth and splintered trees over him, and he himself moved in the center of an enormous pillar of oily flame. He was sunk in the earth up to his chest; at his chest, the earth flamed and boiled and flowed aside as he came forward.

Marty jerked the glasses away from his eyes and looked down. A loudspeaker was booming from the control tower the AF operated. A sudden wind flowing toward VOR carried the words away from him, but he could see their meaning on the field itself: it was being evacuated, hastily but purposefully. While he watched, Al came jack-rabbitting out of the command building as though driven by an electrified pitchfork. He was making for the remote-control installation from which VOR's ship had to be flown; terror had done what persuasion and direct order had been unable to do.

Marty put the glasses up again. He was just in time to see VOR take a 104 shell squarely on the chest. It stopped him. Enormous though his mass now obviously was, nothing that was matter at all could have failed to feel the deceleration-impact of such a blow. Marty noticed that his eyes were tightly shuttered; perhaps he was depending upon the radar-sense of his "ears." While he stood, the ground fuming all around him, the gunners who had scored the previous hit drove another shell into his face.

He was still apparently undamaged afterwards, but he was canted backwards. Then, slowly, he began to sink into the ground.

"We got him?" the cadet by Marty's side shouted, unbelievingly.

Marty picked up the phone. "Petrucelli to fire control. Get me Mendes. Major, this is Petrucelli. No, he's not hurt, he's just run his mass up some more, to get away from the shells—they slow him down. He's gone down to the water table—and it's high here. Can you retrain on the ship? You won't see him again until—"

"We'll kill a lot of people if we fire right into the center of the field," Mendes' voice, made even more ragged by the intervening telephone translation, said quickly. "The shells are HE, but a flying rock is as deadly as shrapnel over short ranges." He spoke, off, and then came back. "All right, we're retraining, better get to cover."

On the field, VOR's ship suddenly stirred in its self-dug trench; and then, idiotically, revolved three times on its vertical axis, like a dying top. Evidently Al had gotten a control crossed somewhere. A moment later, the ship lifted silently, clumsily, and went skimming low and broadside across the field. It seemed to be aimed squarely for the hospital, but at the last minute it pulled up, and at the same time Al managed to trim its long axis into the direction of flight. It shot toward the horizon and vanished.

For what seemed to be a long time, nothing else

happened. There was nobody on the field now, and the retraining of the guns was invisible from here. The forest crackled and sent aloft its resinous pall. The world was suspended. The sudden silence lasted perhaps thirty seconds.

Then there was an earth shock.

The flimsy operations hut and its jerry-built tower went down like an assembly of Japanese screens. Marty jumped at the first canting of the deck, but he was almost not fast enough; a falling beam thumped the earth beside him not two inches from his head. The ground was still rocking slightly as he tried to get up, and in his ears was a hissing, screaming roar so loud that it made him physically sick.

The noise was coming from the center of the field. At first Marty did not even believe what he saw there.

A volcano was being born. A tall spire of steam began up in the middle of the air; below, it was live steam under such pressure that it was invisible. Rocks as big as Cadillacs were fountaining up in its wake, falling back, bounding and rolling along the field. The ground bucked again, and around the jet it first humped itself up, and then collapsed to form a small crater.

The screaming hiss changed into a series of explosions. The steam jet cut off. Lava began to well from the depression, furnace-red as it emerged, then changing to black with many cracks through which the redness still glared.

As the lava cooled, the central depression filled, and the mound began to build again. The noise was continuous and terrifying. More lava, much more, surged suddenly over the lip and came rolling out. A sudden river of glare cut through the side of the mound and poured under a tethered plane on the far side of the field; the plane knelt, bowed its head, broke, and then disappeared in a boiling black detonation. An instant later, the lava was into a hangar. There was another explosion. The hangar lurched and burst into flame all at once.

On the tide of molten rock, VOR rose from the earth.

He was twice his former size. He was no longer black, but white, and tides of heat blasted searingly from him. Hotter and lighter, now, than the granite water-table on which he had been walking, he floated effortlessly in the midst of the volcano.

Marty's clothes began to smoulder. Gasping, he turned and ran. As he passed the ruined operations shack, it began to smoke. In a few moments, nothing would be left of the field at all.

He was at the edge of the woods before he dared to look back. Everything was burning. In the center, he could still see VOR—not white-hot now, but red-hot, immobile in the midst of a dying volcano, ensmalled by distance, but gigantic in potency and power.

Behind VOR, his ship was settling gently to the ravaged ground. And why not? If Al Strickland could fly it by remote control, why not its master? And yet VOR had never called for it until now—and had walked a long distance to get it.

He had been giving the Earth its last clear shot at him. Now that opportunity, too, was almost gone.

VOR turned. The ship received him, and closed itself behind him.

The ship rose.

It soared. Not lightly, not gracefully, but with a sweep of power to which grace would have been irrelevant. It was in the hands of its master; or, no; perhaps ship and VOR were together the entity which had been sent, and was now whole again. That, too, would never be known now.

Seconds later, that entity was gone.

The field continued to burn. His blistered, smoke-smudged face set, Marty began to trudge back over the contorted land.

VOR was gone. But Pat was still in there, somewhere. He felt guilty for not feeling greater concern.

nine

ON THE ruined field there was already a ragged semblance of organization. Unlike VOR, the U. S. Air Force was not invincible, but it was efficient; and Major Mendes had had the foresight to evacuate his fire-fighting equipment first of all.

No effort was being wasted on structures already nearly destroyed, such as planes, or the hangar into which the lava had run. Bandaged men in tattered uniforms grimly fought to save the headquarters building, the hospital, the remaining undamaged hangar. As Marty came out onto the field, the last of the visible flames went out, although smoke and steam still continued to pour from the sides of the headquarters building. The AF's control tower still stood upright on one twisted leg, a tribute to the tensile strength of steel, and its loudspeakers boomed. A bulldozer was blading debris off the cross-wind runway, which looked as though it might still be usable when clear; the main runways, of course, were ruined. Two more 'dozers grunted and shoved rubble into the extinct crater, burying the shortest lived volcano in geological history.

Marty made straight for the hospital, found it already evacuated into tents. Pat was there. Her face had been seared and was heavily coated with anesthetic ointment, and she had a hospital towel bound around her head. Marty suspected that there wasn't much left of the famous red hair; at least, she had no eyebrows left. But she was up and busy.

"Are you all right?" he said awkwardly.

"Yes, thanks," she said impersonally. "Are you? You

look all right, except for the cuts. Better get them dressed."

He hardly heard what she said. He had just noticed that the patient in the third bed down was Al. There were no visible marks on him, but he was white and obviously unconscious—perhaps under hypnotics.

"How—did he get hurt?"

She straightened at that, and her eyes flashed dangerously.

"He's in shock," she said. "Exhaustion. He fought VOR for control of the ship to the last possible second. He was still trying to take control away from him after VOR was in it, and the remote-control shack was on fire. He had to be pulled out."

Marty was genuinely surprised.

"He's got guts after all," he said grudgingly. "Good for him."

"Go away. I haven't got time to talk." She turned her back.

Marty headed for the control tower. Of course, he thought as he ran, Al would have stood a better chance against VOR if he'd troubled to make himself a reasonably competent pilot of the unique craft. But that was probably unfair—against the ship's true master, the outcome of such a struggle was foreordained.

His thoughts were interrupted by a growing hissing thunder. Overhead a glittering shape rocketed above the smoke, heading skyward; two more followed it, then a group of four, jockeying for formation. Far above them, a phalanx of silvery dots ranked against the blueness.

The Strategic Air Command was scrambling. As far as SAC was concerned, obviously, N-day had arrived. Those interceptors could not belong to the special force assigned to the VOR problem, which had already been called out in full strength immediately after VOR had broken out of Grand Rapids. *These* boys were going to look for any blips that might be other human beings coming uninvited to help the United States dispose of its troubles.

The possibility of such "help" was very good.

Getting into the control tower along the twisted ladder was not easy; Marty was winded by the time he reached the top. He spotted Mendes at once, and the officer spotted him at almost the same time.

"Lieutenant Petrucelli! So you made it too. We've lost Lieutenant Boltzman and several cadets; my condolences, but it might have been worse. Some of my boys got theirs, too."

So Boltzman had stuck his head out of a plane to yell at a farmer-friend below for the last time; he would lose no more sunglasses that way, or any other way. It touched Marty, although distantly, for he had always liked the big machinery-parts salesman—an utterly honest, utterly kindly man, and in Marty's estimate the best pilot in the squadron, though ungiven to advertising his skill. But Mendes was right; it might have been worse.

But no, that wasn't so. *After the first death, there is no other.*

The G.C. speaker was muttering in the tower, just above their heads.

". . . north of Minnemac Lake. Does not appear to be putting on speed. Still no report from Operation Head-On. No report from Squadron Baker since sighting the enemy. Operation Fenris reports enemy now apparently hovering in last reported position. Fenris doubling back north-northeast for second strike. No report from—"

"What's all that?" Marty said tensely. "Still nothing from Washington?"

"There's what-for from Washington," Mendes said grimly. *"Shoot to kill."*

"Atomics."

"Yes. Air-to-air. They think the ship may shield him enough—maybe they can blow it out from around him without making him go off too. If so, a good long fall might bury him so deep he'd never get out."

"But that's insane. You saw how he came up out of the ground here—and he can control his mass, he might

hit with no more impact than a flake of Quaker Oats, for all we know!"

"I said as much," Mendes said. He nodded toward a spare figure in civvies, working at a bench on the other side of the tower, its back turned to them: Kovorsky, in tatters, but otherwise seemingly uninjured. "So did he. We also pointed out that VOR hasn't enough altitude yet to risk his *not* going critical on us. So far, VOR hasn't risen above five thousand feet. He's got the drop on us and he knows it."

"And this got you nowhere," Marty said. "Not with Holm dead. Egl is tall in the saddle now."

"You guessed it. Besides, who knows, Lieutenant? He could be right."

"He can't afford not to be!"

Kovorsky turned, recognized Marty, and almost trotted across the crowded floor toward him, looking like nothing so much as a panic-stricken ostrich. "Lieutenant Petrucelli, good, good. We are ready now. I had hoped you got out. Let us go, there is not moment to waste."

"Hey, slow down. Go where? What do you mean, ready?"

"I have device to communicate over distance to VOR. We must reach him before nuclear missiles do. You must fly me, it is only way. Immediately, da?"

"Ask Major Mendes to assign you a plane," Marty said. "I don't fly."

"Fast plane is not good, Lieutenant Petrucelli. VOR must *see* what I send him, you must understand. It's no good going by him like whoosh, riding jet. I need *slow* plane, slow as old automobile. We must not argue, we must *go,* right now!"

Marty shook his head mechanically. "If we've got a light plane left—which I doubt—somebody else can fly you." Suddenly, sickeningly, something that Mendes had said came back to him. "Major, you said we lost some cadets. Do you know their names?"

"No, I'm afraid not," Mendes said. He was distracted; a runner had just brought him a chit which he was obviously having trouble digesting. "Your cadet

sergeant, I think, but I'm not sure. Oh, hell, yes, the other man wasn't a cadet at all, he was your PIO—man named Casper? Anyhow, he got it first of all—he was square out in the open when VOR broke through, trying to take pictures."

And there it was. Boltzman dead; Casper dead; Tommy Bergsen dead; Al Strickland hospitalized; Harry Hartz unable to fly so much as a kite. Marty Petrucelli was the squadron's only remaining available licensed pilot—and Mendes would need his own highly trained men to fly the planes they knew best; he couldn't throw such a pilot away on a putt-putt job.

"Major," Marty said slowly, "do we have any of our planes left, do you know?"

"No, I don't know," Mendes said. "Excuse me. Business." He trotted across the deck to the master microphone and began shouting orders.

"Well?" Kovorsky said impatiently.

"A minute, Doctor. Let me see if I can raise Hammerkein. I have to know if we still have a plane."

"Now there's a funny thing," Hammerkein said over the intercom, his heavy voice pleased the moment Marty gave his name and asked his question. "We still got the Cub, Marty. She was in the AF's hangar, waiting to be tore down, but nobody never tore her down, with the excitement and all. Need an observer? Are you hurt any?"

"No, got an observer. And I'm all right. How about you?"

"I broke my leg," Hammerkein said. "Lucky I got off that easy. Hey, you mean you're going to take up that Cub? You really *are* all right, Marty! I mean—hell, I mean, well, you'll want radio contact. I'll stick here and keep it open. You'll need a radioman who knows that Cub; her plugs ain't really shielded worth a damn. But I can read a signal through 'em."

"Good, thanks, Johnny."

"Any time."

And so that last refuge was gone. The tattered old Cub was still there, after all the big planes for Navions

and other modern light aircraft had been swallowed up in Harry's overreaching ambition and the fact of this strange form of inter-stellar war.

And Marty had to fly it. *Had* to fly it. There was nothing left to do now but bite the bullet, and *do*.

Hammerkein had been wrong about the location of the Cub, though he had had no way of knowing that. The AF hangar where the Cub had been put in dead storage had been threatened by the hospital fire, and so the plane had been shifted in the last half-hour to the CAP's own ancient hangar, which somehow had survived with only a heavy scorching and a pronounced lean to port.

The left door of that hangar had always been hard to open, even after the track it hung from had been straightened and a trench dug out for the door to slide in, and Marty knew better than to try to slide it with only Kovorsky to help him. Instead, he ran the jeep around in front of the hangar and pushed the door open with the front bumper. Nobody was needed to open the right door; it had fallen down.

He parked the jeep and went into the hangar. Kovorsky was looking at the plane with an expression of open mistrust. To a man used only to commercial or military planes, a J-3 Cub looks as fragile as a dragonfly, which it somewhat resembles—and this was a 1947 plane, bought second-hand and quite obviously patched. Marty, however, wasted no time in reassuring the scientist; his reassurances were inadequate even to himself. Instead, he checked the height of the fuel-bob, and then the oil. Both were full-up; evidently the AF had been keeping the little plane ready as a matter of routine—or of respect—for the true airman loves anything that flies.

"All right," he called to Kovorsky. "Give me a hand. When I holler, pull free those two wooden things you see under the wheels, and throw them to one side and the other. Then get on the right wing and push—on the front strut, not the back one."

Kovorsky nodded and ducked under one wing.

"Okay, throw," Marty said.

The chocks thudded away, one, two. A moment later, one tire bumped off the concrete apron onto the ground, and Marty swung the tail. Kovorsky evidently was surprised, and not much pleased, by the ease with which the plane rolled, and Marty's ability to pick up its whole rear section single-handed.

"All right, Dr. Kovorsky, climb in the front seat—"

"The front?" the linguist said, turning. "But to fly—"

"I can fly it from the back. I learned to do it that way."

Shrugging, Kovorsky started to put one foot on the joint where the struts met the fuselage, and was immediately confronted with the stenciled warning, "NO STEP." Marty showed him where the stirrup was and how to grab the overhead struts in the greenhouse so as to swing himself onto the seat. Nevertheless, it was a considerable scramble. Marty fastened the Russian's safety-belt for him.

"Now, see those two little metal plates sticking up there, just in front of those pedals? Those are the brakes. Put your heels against 'em and push—and keep pushing until I get into the plane. Don't forget, and don't lose 'em, or you won't have a pilot any more."

Kovorsky nodded grimly. Then it was his turn to supervise as Marty loaded his apparatus into the space behind the back seat and secured it. The business end of the equipment turned out to be the CAP squadron's own biscuit-gun, now modified into something no traffic control man would ever recognize; this Kovorsky insisted on carrying in his lap.

"All right, but don't let that cable foul my control lines. Now. This thing above your head is the switch. When I yell 'Contact,' turn it from where it is now all the way over to where it says 'Both.' But before you turn it, you yell 'Contact' back at me. Got it?"

"Got it."

Marty went under the wing. "Still on the brakes?"

"Brakes are on."

Marty pulled the prop backward through three turns. "Contact!"

"Contact!" Kovorsky cried like a veteran, and Marty saw his hand reach up over his head to turn the switch. Marty seized the prop, swung his right foot to the left like a pendulum, and on the return swing threw the prop down, hard.

The engine barked and caught. Without waiting an instant, Marty ran bent double, under the wing again and reached across the back seat to the throttle, advancing it slightly. The engine turned over a little faster.

Kovorsky was red-faced and his body was rigid; he was digging into the brakes as though trying to stop a runaway locomotive. As soon as Marty had himself strapped in, he took the brakes himself from the back seat and tapped Kovorsky on the shoulder.

"All right. Let go. Let go, I've got it."

Kovorsky went limp. The next instant, as Marty started the plane taxiing, he grabbed at the sides of the cockpit.

"Don't grab, goddam it! Just sit still. And keep your knees away from the stick and your feet off the pedals."

Kovorsky nodded and clenched his hands on the biscuit-gun in his lap. Marty felt a little impatient. It was all very well to be afraid of flying, as he could understand well enough, but Kovorsky was not afraid of flying; he was afraid of the unknown. Or maybe he had heard enough scuttlebutt to be afraid of Marty.

At the end of the field, Marty turned at right angles to the cross-wind runway and stopped, running the engine up to 1500 rpm. The oil temperature needle began to inch away from its peg. The ship trembled heavily until Marty remembered to pull the stick back and toward the wind. That reduced the shuddering a little.

Kovorsky twisted in his seat, his eyes bright and unblinking.

"There is something wrong?" he shouted. "Why do we not go?"

"Nothing wrong. Warming up."

The engine, in fact, seemed to be hot enough now; Marty remembered dimly that a Cub is usually ready to go as soon as the oil temperature gauge shows any response at all, but he was taking no chances. He was too unsure of the pilot to want to have to worry about the airplane, especially during those crucial instants of takeoff when a cold engine might quit—and a flunked pilot might lose his nerve.

Kovorsky fiddled with the biscuit-gun, then turned again and craned his neck to see the shelf back of Marty where the rest of the apparatus sat. This had the effect of reminding Marty that Kovorsky's device was powered by a gas-shuttle generator bomb—a grim, heavy cylinder wound with coils, inside which a shuttling series of shock waves in uranium gas induced in the coils some ten thousand volts of DC electricity. Kovorsky had grinningly refused to assure him that the thing was safe.

Deliberately, Marty forgot the ugly generator, and checked his own magnetos and his carburetor heat. Then he pulled the throttle back until the engine was idling. At once it emitted two sharp pops, each one making him jump. Then it settled back into smooth running again. He could think of no reason for the pops, and waited for another, watching the tachometer; but nothing happened.

It had to be now—or he wouldn't go at all.

"All set?" he shouted. Kovorsky nodded stiffly.

Clenching his teeth, Marty turned the ship onto the runway, and shoved the throttle and the stick all the way forward, Trembling in every member and cotter-pin, the Cub charged wildly for the line of trees crossing the other end of the field, trying to ditch the runway first on one side and then on the other. Marty wiggled his toes frantically, pulling the stick back into neutral as the tail lifted, and at the same time snatching glimpses of the air-speed indicator.

The plane was doing fifty when it struck a heaved spot in the black-topping and left the ground. Instinctively, Marty eased the stick back. The plane, improbably, never came down on the other side of the bump; it simply lifted, as though thousands of willing hands were buoying it away. The line of trees dipped below the nose of the plane.

Marty looked down and saw the trees passing under him. He had not gone through the notch where the trees were shorter, as he had planned, but it didn't matter—he seemed to have plenty of clearance.

In his line of sight also was the left tire, which was spinning in emptiness. Then the plane struck a gust and leapt upward still faster, tipping to the right as it bounced; Marty flipped it back to level and put his full attention straight ahead.

The Cub was still doing only a little over 55, though the engine was putting out 2000 rpms. That was too steep a climb. Marty dipped the nose a little and backed the throttle down a quarter. The altimeter continued to go up, but the tachometer stayed steady and the airspeed climbed to 80. That was more like it.

Five hundred feet; time to make the first turn out of the field. Left wing down; left rudder. Take the rudder out as soon as the turn is established, let the bank carry you around. Easier remembered than done; the turn was mushy, the bank too steep and the rudder not restored to neutral soon enough. But the plane did turn, and without losing altitude—in fact he had gained a hundred feet on the swing. Gently, gently, the placard riveted to the dashboard reminded him: *Do not perform violent maneuvers in this aircraft.*

Now left again. A little back pressure on the stick.

He looked down. The wheel had stopped turning. Below, on the ground, an onion field passed below him, the same one into which Boltzman had once lost his sunglasses; then a stretch of woods; then a pasture, with cows as big as crickets moving in it. But where the hell was the airfield? Was he lost already?

No, there it was, off to the left. Marty recognized it

by the French-curve pattern of the abandoned motorcycle track near it, rather than by the mostly ruined buildings; he had never seen the field from the air before, anyhow. Then he spotted the still-standing hangar and the tower. The windsock flowed out from the hangar, nearly at right angles to the runway he had just quitted.

For God's sake, I took off in a *crosswind.* I never checked the sock before I gave her the gun. Did the whole damned thing by the seat of my pants.

And then, with a jolting shock, as though a sledge had struck off hobble-gyves he had been wearing for half his life:

What under God was I afraid of? It's *fun!*

Kovorsky's head moved. He, too, was peering down at the moving ground. The movement took him out of Marty's line of vision long enough for Marty to catch a glimpse of the compass. Better get a heading before leaving the valley. Leveling off at 1500 feet, Marty backed the throttle down to a quarter, let go of it, and pulled the map out of the pocket on the back of Kovorsky's seat.

Kovorsky straightened up and looked back.

"Is all right?" he yelled above the wind.

"Okay. Checking our course. How do you feel?"

"Scared like dog. Is like riding in airborne hammock. You?"

"I feel great," Marty said, grinning almost savagely. "Relax and enjoy it."

"All is—all normal is?"

"Smooth as glass. Want to learn how?"

Kovorsky threw up his hands. They touched the overhead struts and grappled with them automatically.

"All right. If you get cold, pull the knob to your far left. That's the cabin heat." It didn't work, Marty remembered suddenly, but he decided not to mention that.

At 3000 feet the trip settled out and even began to become a little dull. At that altitude the ground was no longer so interesting, and the sense of movement al-

most vanished, although the airspeed continued to hover around 85. The air itself was quiet, so quiet that Marty let go of the controls entirely for two or three minutes at a time while he checked the terrain against the map. Kovorsky caught him at it once and turned quite white, but Marty set him to the task of watching for VOR, and eventually even the scientist seemed lulled by the steady uneventfulness of the Cub's progress through the wide blue air.

There was only three hours' worth of gas in the tank, but that ought to be plenty. According to Hammerkein, VOR was still hovering just where he had been before Marty and Kovorsky had taken off. Occasionally Marty saw military planes, but if they were maintaining a watch on VOR's immobile ship, they were having trouble; a fast jet makes a poor reconnaissance plane.

Yet the sense of time-to-spare was deceptive, as Marty knew well. The special killer squadron with the air-to-air nuclear missiles was closing in fast. Marty stuffed the map back in the pocket and shoved the throttle forward. The Cub roared like a startled bull, and the airspeed went rapidly to 115. The noise was indescribable; Marty had forgotten that a 65-horsepower engine with nothing but a wooden propeller could be so outspoken—

"There!" Kovorsky screamed. "There! I see him!"

At first Marty could see nothing but sky above a green thatching of forest. Then he saw a dot of light, swelling slowly into a silver bug.

VOR's ship was still utterly motionless, hovering about three thousand feet above the woods. Kovorsky pointed up, urgently. Marty pulled back the throttle.

"All right, but why? What do you want me to do?"

"Circle around him, high up. I need to aim at his top eye, so he can see my light continuously. If we go around him at his level, message keeps getting interrupted."

Marty made a quick mental calculation. It had been two decades since he had done pylon turns in a small

plane, while he had still been a fledgling air cadet. It would be better not to make them too tight. About 8,000 feet should do it.

"Is a mile above him too high?"

"No, maybe not. Try it. If it is too high, we go down, all right?"

Marty hoped it would be all right. He opened up the throttle again and climbed steeply.

Only then did he see the vast cartwheel of contrails which hung above VOR like a titanic multiple halo, at an altitude of perhaps 15,000 feet. The killer squadron was already there, and it was circling.

It was waiting to see what Kovorsky would do. Evidently Egl had had some small grain of common sense after all.

VOR waited, too. His ship was pinned motionless between earth and the sky as though by natural law. Evidently the power that had shown itself capable of such enormous acceleration and deceleration found a field of one gravity no problem to fight.

The Cub hit 8,000 feet, and Marty put it into a shallow pylon turn to the right, backing the airspeed down to 65. "Can you hit him from here?"

"I think so." Kovorsky touched a toggle, and behind Marty's head there was a sudden heavy hum—a carrier wave. A quick glance revealed a small loudspeaker.

"Hey—is there radio involved in this thing? The spark plugs in this heap aren't well shielded."

"No matter, it is PM—pulse-modulated. It ties me in to computer at Grand Rapids. Open window, please."

Marty shifted hands on the stick and unbuttoned the Cub's side panels. The bottom one fell down easily, admitting a blast of icy air into the cabin, as well as an increased roar of engine noise; but folding the top one up was a battle; Kovorsky had to help him.

"Okay?"

"Okay." Kovorsky leaned far out, hanging from his belt, and aimed the biscuit-gun at where the shining capsule floated like Mohammed's coffin below them.

He shifted a small microphone in front of his mouth and pulled the trigger on the gun.

"VOR! VOR!"

God-like, implacable, Kovorsky's voice thundered from the loudspeaker behind Marty's head. It drowned out the Cub's engine and the high roar of the circling jets without effort.

"VOR! Attention! We have come to keep promise!"

For an instant, Marty was totally confused. VOR could not hear—and even if he could, the loudspeaker voice would never have carried so far. Then he remembered Kovorsky's remark about the radio tie-in to the Grand Rapids computer, which had been miraculously saved, and understood in a flash of pure awe.

The words Kovorsky was speaking were being translated into colored light in the biscuit-gun. Obviously no apparatus for doing the necessary translation could be carried in a Cub. And the loudspeaker was not there primarily to carry Kovorsky's voice. It was there to give Kovorsky the answers. When VOR replied—if he did—his pulses of color would be picked up by a photocell, transmitted as radio impulses to the computer, sorted for meaning, and sent back by radio as English words to Kovorsky's receiver.

"VOR, hear me," Kovorsky's giant voice thundered. "Listen and obey. We have come for you. We have your death. Listen to me, VOR. We have your death."

On the gleaming cylinder far below, a bright spark suddenly appeared, almost too bright to look at. It followed the circling Cub. It began to change color. Marty knew that what he would hear next would only be the sound of a voder, driven by the Grand Rapids computer; but all the same he did not want to hear it.

When it came, it was worse than he could ever have imagined. It was worse than any voice ever heard in all the nightmares of the world.

"YOU HAVE NO DEATH HERE."

"We have death. We have your death."

"YOU HAVE NOT MY DEATH. YOU HAVE

FEAR. FEAR IS WEAKNESS. WEAKNESS IS EVIL. YOU HAVE NO DEATH HERE."

"We have always had death. We have had death as long as you have had fear and evil. And we have your death."

"YOU HAVE NOT MY DEATH. NONE HAS MY DEATH. I HAVE SOUGHT MY DEATH LONG AND LONG. NONE HAS IT. I HAVE FOUND MUCH EVIL. BUT NOWHERE MY DEATH."

"Then you have come home," Kovorsky's giant voice said. "Die here, VOR."

"HOW?"

The greed in that sound—the *greed!*

There was a long silence. Marty discovered that he had been losing altitude and corrected for it numbly. In looking up, he saw that the circling killer squadron had been losing altitude as well—and not by accident. They were at 10,000 feet now, and their circle was getting tighter.

Marty paid them no further heed; his mind was too busy wondering how it was possible for the voder-voice of a computer to carry so much emotion. Then he realized that he was misreading what he had heard. VOR's natural speech naturally carried overtones which the computer could sense, but not interpret; it was handling them by variation of emphasis, but there was no reason to believe that the variations corresponded to any recognizable human emotion. Somehow the deduction did not make the sound any less chilling.

"HOW?" the droning voice insisted.

"By fear," Kovorsky said, his own voice ringing like iron. "Fear, king of evils—fear as weakness. Listen to me, VOR. You can die. But you are afraid to die. You are afraid. Fear is weakness. Weakness is evil. You are as evil as we; it is proven. We have given you our evil, VOR. We have given you our death—and it is your death."

Again, a long pause. Then:

"WHAT IS MY DEATH?"

Marty saw Kovorsky drew a deep breath. Then his voice rang out like trumpets:

"The fear of death!"

The words meant almost nothing to Marty. The sound of that droning voice which was not a voice had, for him, almost deprived all the world of meaning; and the limited vocabulary which existed between VOR and mankind had forced the argument to circle back and forth over the same set of abstractions until he had lost the thread of what Kovorsky was getting at. But some ancestral sense told him how precariously the fate of the world hung upon those last four words. He kept the Cub in its gentle pylon turn and waited.

Then VOR's ship stirred. It rose gently away from the dull green forest. It tilted upward.

Then, instantly, without transition, it was hurtling skyward faster than a bullet. The killer squadron swirled out in pin-wheel arms, like a metallic galaxy, re-grouping to catch it—but it slammed through the formation minutes ahead of any possible trap. It was already doing at least Mach 4, and still accelerating.

It soared into the sun . . . dimmed . . . glimmered out.

VOR was gone.

Marty cut the engine and put the Cub into normal glide. He was, he discovered, just about out of gas.

ten

MARTY WAS LUCKY. To begin with, he had failed to keep watching for a possible emergency landing spot; but he found one almost immediately, a long straight strip in the woods which was apparently a fire break.

He was lucky to land in it safely, too, for landing is the most critical of all flight maneuvers. As it was, he lost the Cub's tail-wheel and tore a considerable amount of fabric off the rudder and elevators in the brush. Both he and Kovorsky were shaking when they climbed out into the deserted woodland clearing.

Kovorsky carefully disarmed his portable atomic pile, the gas-shuttle generator. A squirrel came out along a branch above their heads to watch them.

"Is he really gone?" Marty said at last.

"Who knows? Not I, Lieutenant Petrucelli. He has gone to throw himself into the Sun, I think. But what will happen then?"

Marty swallowed. "You think he might sutvive *that?*"

"No," Kovorsky said, almost regretfully. "He cannot. Nothing could. But he is reservoir of power. What effect will *he* have on Sun? It is open question. Not much effect, I judge; but I could be very wrong. I succeeded, where all brute force failed—but my success may be as fatal as *they* would have been." He jerked his eyebrows aloft at the distant, now diminishing howling of the killer squadron. "We will know in a while."

"How did you do it?" Marty said wonderingly.

"By analogy," Kovorsky said somberly. "It has never seemed reasonable to me that people who sent VOR on his world-reconnoitering and world-wrecking would have no defense of their own against him. At best, they must be protected by obedience. But what if obedience should fail? Suppose this unthinkable puissant mechanism becomes deranged? Then surely they must also have weapon or means to destroy him."

He looked grimly at his own, now silent apparatus. "I would give much to know what that was, but now I never shall. What was important was that VOR knew what it was. *He* knew that he could be destroyed, and he knew how to do it.

"Then I made second assumption. If he is not truly living organism, but a construct, then he cannot be subtle. Necessarily his reasoning is simple, and he is

therefore accessible to simple ideas. I gave him simple idea to play with: that because he knew how to destroy himself, but had failed to do it, he was as weak and evil as those he threatened to scourge for weakness.

"It was risky. But he understood me; he believed me; he has gone away to destroy himself. And to those among stars who sent him, Earth will be place to shun, place where some live who are more powerful even than VOR!"

"And how will we know?" Marty said.

"Know what?"

"What will happen when he reaches the Sun."

"Why, by only certain way we learn anything," Kovorsky said. "By dying. Sun will go nova, perhaps; or there will be solar flare. Or something utterly unpredictable. We must wait."

Marty looked up at the squirrel, which did not seem in the least abashed. He found that it was impossible to worry about personal survival any more. He had never felt more alive than now, here, in these silent pine woods.

Suddenly, astonishingly, Kovorsky laughed.

"And think now," he said. "Think, we are heroes, Lieutenant Petrucelli. You will get promotion. More, you will be Michigan AEC commissioner, as poor Chris planned for you. They will fawn upon us and give us medals—and why? Because we used common observation, common understanding, instead of atomic bombs and bluster. And you will even get your lovely wife back. We should be happy, not anticipating doom!"

"No," Marty said. "I don't think so."

Kovorsky turned and looked at Marty with keen eyes. "Why not? Explain."

"I don't think I have to explain to you, Dr. Kovorsky," Marty said. "You don't miss much."

"I want to miss nothing. Explain, please. I demand it."

"Well, nobody is loved for what he does, that's all," Marty said. "That's a kid's notion—'When I grow up, I'll show them all, and then they'll be sorry, but it'll be

too late!' It doesn't happen that way. You mentioned my wife. She won't love me any better for what's happened. To be victorious isn't to be lovable. Sure, I got back into the air again—but that wasn't ever what was *really* wrong between us. Sure, Al Strickland got left behind while the VOR thing got solved—but what's that got to do with Pat? Women don't love heroes, they love men. If they're honest, at least, and Pat's honest—a bitch, but honest. She won't come back to me because I'm going to get some medals and a state job, and I'd loathe her if she did; she'd be whoring, and we'd both know it."

He paused, necessarily; his mouth was scalding. Kovorsky watched him with eyes which were both pitying and gratified at once. Marty did not know which emotion he found harder to bear.

"Haven't you heard enough?" Marty said harshly.

"No. Not quite."

"Then I've got one more thing to say. The man who thinks any victory will win a woman is just trying to please his mother. Women know that from scratch—and they hate it. Victories are for the victor, not the audience. I didn't know that until we took off from the field today, but then I got it so that I'll never forget it again. That's all."

"No, not all," Kovorsky said. "Nearly all, but not all. What do you say to VOR? Surely he does not leave us entirely as we were before. We shall not all die, perhaps, but we shall all be changed."

"I don't think so. But if that's what's to happen—well, why not? Ezra Childers would know what to think right now. He thinks we're on the verge of the Last Judgment. All right—suppose it is? We're better off being judged by the will of God than by VOR. Or maybe Ezra's right, and they're the same thing. VOR tempted us to destroy ourselves. We fought back, all the way to the limit—and we pulled back at the limit. That's all we could have done, as far as I can see. If

it wasn't good enough, we won't have to pass that judgment ourselves. We'll be told."

Kovorsky looked back up toward the Sun.

"And that is also true," he said quietly. "Christian Holm was right: you are his son."

AVON: THE SIGN OF GOOD READING

SEVEN MILLION DEGREES OF INFERNAL FURY

The glowing, compact ovoid plummeted downward, the whole sky screaming like a metallic banshee as the air boiled away from its sides.

A supersonic BANG broke over the forest, but the thing was already gliding in among the trees. The curious centerboard glided down—earth fountained away from it like water—and all the forest burst into flame!

Then a thin black line etched a perfect circle on the side of the metal egg—the circle thickened into a door or airlock—the air was rent by a searing, screaming hiss, and suddenly—

The strange being—soon to be known to all mankind as VOR—emerged...

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