

Star Light

By Hal Clement

Third of Four Parts

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Any effort to explore any frontier is always an invitation to a new and unexpected way of dying.

One a planet like Dhrawn, with a 40-gravity load, and a weirdly unstable atmo-hydrosphere, not even atomic power engines were an assurance of safety!

Dhrawn is the star/planet companion of Lalande 21185, a red dwarf half a dozen light-years from the solar system. It has been bothering the cosmologists and planetologists. In terms of mass, it is on the borderline between typical Jovian planet and extreme dwarf star; in terms of composition, it seems to be as nearly destitute of light elements as Earth, or Venus. It is generating internal energy; its sun could not warm it above a few tens of degrees Kelvin, but there are local regions as hot as 1200K. The atmosphere contains free oxygen, although the oceans (?) contain not only water but ammonia—a chemically unstable situation leading to the presumption that Dhrawn has active life.

Direct exploration is impossible for human beings because of the forty-Earth surface gravity. It has been decided to hire natives of Mesklin, the variable-G planet of 61 Cygni A, to do the work. BARLENNAN, the Mesklinite sea captain who had worked with non-Mesklinite researchers on his own world fifty Earth years before, jumps at the offer—with unmentioned idea of his own in connection with the deal. A Mesklin-conditioned settlement is established on Dhrawn, and a dozen exploring vehicles to be manned by the Mesklinites are designed and built.

One of these, the *Kwembly*, is commanded by DONDRAGMER, Barlennan's first officer in the old days when were carrying alien instruments around their own planet. One of the *Kwembly's* helmsmen is a young sailor named BEETCHERMARLF.

The surface work is being monitored from a station manned principally by human beings, in synchronous orbit six million miles from the planet. Its chief administrator is ALAN AUCION, who has a basic, though fairly well hidden, distrust of non-human beings. His staff includes ELISE RICH HOFFMAN—"EASY"—who functions as interpreter with the Mesklinites, and general spreader of oil on troubled waters; and her husband IB HOFFMAN. Their seventeen-year-old son BENJ is also at the station, serving an apprenticeship in the aerology laboratory. Like his mother, Benj is as excellent natural linguist and can talk directly with the Mesklinites.

A distrust has been developing between human and Mesklinite leaders, partly because of Aucion's attitude and partly from Barlennan's underhanded activities. Even though field communication between the settlement on Dhrawn and the land-cruisers has to be relayed through the human station, Barlennan has been working to establish another settlement independent of, and unknown to, the human beings. Toward this end he has arranged the "loss" of the landcruiser *Esket* and the disappearance of her crew. The *Esket* is being used as the nucleus of the new settlement, at which mining and other activities are leading toward local self-sufficiency are being carried on.

Now, however, genuine troubles are developing. The complex phase relationships between water and ammonia have been outwitting the human aerobiologists and their computers, and Dondragmer's *Kwembly* has been washed down a river formed by a sudden melting "snow" field, grounded, damaged, partly repaired and finally frozen in. Beetchermarlf and a companion have been trapped under the cruiser by the ice; another officer, KERVENSER, has disappeared in one of the tiny scout helicopters carried by the *Kwembly*.

The human beings get into a sharp disagreement because of the *Kwembly* situation. Aucoin, as in the *Esket* incident previously, is reluctant to authorize a rescue trip by one of the other cruisers-though he realized that if Barlennan wants to do this there is no way to stop him. The elder Hoffmans want the whole decision left up to Barlennan, with any help whatever which he may ask-including rescue from space-to be furnished from the station. They resent Aucoin's policy of editing, or actually censoring, the reports between Dondragmer and Barlennan. Benj, who has formed a close radio friendship with Beetchermarlf, considers only the personal aspects of the problem, but is deeply upset by these. A staff discussion, kept from becoming a major brawl by Easy's professional tact, leads to only one result: Ib Hoffman, hearing for the first time a real summary of the relevant facts, begins to realize Barlennan is up to something on his own.

Beetchermarlf and his companion, caught in the shrinking volume of free liquid under the *Kwembly*'s hull, spend hours in futile efforts to dig, scrape, and melt themselves free. They finally take refuge in one of the air cells forming the "mattress" underpinning between the hull and the driving trucks-incidentally concealing themselves very effectively from possible rescuers. Their own supply of breathing hydrogen, while not yet critically low, is causing them and the distant Benj more and more concern.

The human assistance to the *Kwembly* finally concentrates on technical advice, and some of the cruiser's equipment is dismantled to improvise a heater. Dondragmer is reluctant to take this step, fully aware of the Mesklinite position with regard to replacing or repairing the equipment-but it seems the least of a host of evils.

At the Settlement, Barlennan and his staff have come to suspect that the human beings have not been entirely frank with their Mesklinite agents. Barlennan does not resent this, since he has been extremely deceitful himself and regards such things as matters of business acumen; but he decides that he should set up a test situation to find out how truthful the men are being, using the *Esket* as bait. He is about to send a message containing the arrangements by one of the dirigibles which the Mesklinites have improvised from homemade balloons and human supplied power units. At this point, however, a message arrives from the orbiting station reporting a disturbance at the site where the *Esket* was lost. Barlennan is left wondering whether something is really happening at his secret base there, or whether the human beings are testing *him*.

At the *Kwembly*, Dondragmer is growing more and more concerned about the possibility of another flood, and keeps asking for risk estimates from the human scientists. If such a thing happens, his command is likely to be a total loss. He is considering moving the trapped vessel's life-support equipment to high ground, to insure his crew's survival. He also has other helicopter out, carrying one of the television sets which transmit to the human station. The pilot is looking for Kervenser as well as for signs of another flood.

When the human watchers report that this set has also ceased sending, it does not occur to Dondragmer that the report might be false; but he is annoyed. He supposes that the pilot shuttered the set to keep the human beings from seeing something which would betray Barlennan's machinations, such as a wandering dirigible; and unlike most of the Mesklinite staff, he has never been in very close sympathy with Barlennan's policy of trickery.

Part 3

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The weather had long since cleared at the Settlement, the ammonia fog blown into the unknown central regions of Low Alpha and the wind dropped to a gentle breeze from the northwest. Stars twinkled violently, catching the attention of occasional Mesklinites who were outside or in the corridors, but going unnoticed for the most part by those in the better lighted rooms under the transparent roof.

Barlennan was in the laboratory area at the west side of the Settlement when Easy called, so her message did not reach him at once. It arrived in written form, borne by one of Guzmeen's messengers who, in accordance with standing orders, paid no attention to the fact that Barlennan was in conference. He thrust the note in front of his commander, who broke off his own words in mid-sentence to read it. Bendivence and Deeslenver, the scientists with whom he was speaking, waited in silence for him to finish, though their body attitude betrayed curiosity.

Barlennan read the message twice, seemed to be trying to recall something, and then turned to the messenger.

"All this just came in, I take it."

"Yes, sir."

"And how long has it been since the preceding report from Dondragmer?"

"Not long, sir-less than an hour, I'd say. The log would show; shall I check?"

"It's not that urgent, as long as you know. The last I heard was that the *Kwembly* had grounded after washing down a river for a couple of hours, and that was a long time ago. I assumed that everything was all right, since Guz didn't pass any more on to me about it. I assume now that he either heard interim reports at the usual intervals, or asked the humans about it?"

"I don't know, sir. I haven't been on duty the whole time. Shall I check?"

"No. I'll be there in a little while myself. Tell Guz not to send anything out after me; just hold any calls." The runner vanished, and Barlennan turned back to the scientists.

"Sometimes I wonder wheter we shouldn't have more electrical communication in this place. I'd like to know how long it's taken Don to get into this mess, but I want to learn some other things before I walk all the way to Guzmeen's place."

Bendivence gestured the equivalent of a shrug. "We can do it if you say the word. There are telephones here in the lab which work fairly well, and we can wire the whole Settlement if you want the metal used that way."

"I don't know yet. We'll keep to the original priorities. Here, read this. The *Kwembly* has gotten herself stuck in frozen water or something, and both her helicopters have disappeared. One had a communicator to the human beings aboard and in use at the time."

Deeslenver indicated his emotion with a soft buzz, and reached for the message in turn; Bendivence passed it over silently. The former read it silently-twice, as Barlennan had done-before he spoke.

"You'd think the humans would have a little more information if they were watching at all carefully. All this says is that Kervenser failed to come back from a flight, and that a flier searching for him with a communicator on board stopped sending-the screen just went blank all of a sudden."

"I can see one possible reason for that," remarked Bendivence.

"I thought you would," returned the command. "The question is not what blanked the screen but why it should have happened there and then. We can assume that Reffel used the shutter on his set-it would have been nice if you'd thought of that trick before the *Esket* went out; it would have simplified that operation a lot-because something had come into his field of view which wouldn't have fit in with the *Esket* story. But what could it have been? The *Kwembly* is five or six million cables from the *Esket*. I suppose one of the dirigibles *could* be down that way, but why *should* it be?"

"We won't know until another flight gets back from Destigmat's place," replied the scientist practically. "What interests me is why we didn't hear about Kervenser's disappearance earlier. Why was there time for Reffel's mission to be flown and for him to disappear, too, before we were told about it? Was Dondragmer late in reporting to the human observers?"

"I doubt that very much," replied Barlennan. "Actually, they may have told us about Kervenser when it happened; remember, the runner said that other messages had been coming in. Guzman might have thought the disappearance worth sending a runner for until Kerv had been gone for a while. We can check up on that in a few minutes, but I imagine there's nothing funny this time.

"On the other hand, I've been wondering lately whether the people up there have always been relaying information completely and promptly. Once or twice I've had the impression that-well things were being saved up and sent in one package. It may be just sloppiness, or it may not really be happening-

"Or they may be deliberately organizing what we hear," said Bendivence. "Half our crew could be lost at this point without us knowing it, if the humans chose to play it that way I can see their being afraid we'd quit the job and demand to be taken home, according to contract, if risks proved too high."

"I suppose that's possible," admitted Barlennan. "It hadn't occurred to me just that way. I don't think that particular notion is very likely, but the more I consider the situation, the more I'd like to think of a way of checking things-at least, to make sure they're not taking time to hold conferences on just how much to tell us every time something does go wrong with an exploring cruiser."

"Do you really think there's much likelihood of that?" asked Deeslenver.

"It's hard to tell. Certainly we've been a bit less than completely frank with them, and we have what we consider some very good reasons for it. I'm not really bothered either way. We know some of these people are good at business, and if we can't keep even with them it's our fault. All I really would like to be sure of is whether it's business or carelessness. I can think of one way to check up, but I'd rather not use it yet; if anyone can suggest an alternative, it will be very welcome."

"What's the one you have?" both scientists asked together, Deeslenver perhaps half a syllable ahead.

"The *Esket*, of course. It's the only place where we can get an independent check on what they tell us. At least, I haven't thought of any other so far. Of course, even that would take a long time; there won't be another flight from there until sunrise, and that's twelve hundred hours or so away. Of course, we *could*

send the *Deedee* even at night-"

"If we'd set up that light relay I suggested-" began Deeslenver.

"Too risky. It would have much too big a chance of being seen. We just don't know how good the human instruments are. I know most of them stay 'way up at that station overhead, but I don't know what they can see from it. The casual way they distribute these picture senders for us to carry around here on this planet suggests that they don't regard them as very fancy equipment, as does the fact that they used them twelve years ago on Mesklin. There's just too much chance that they'd spot any light on the night side of this planet. That's why I overrode your idea, Dee; otherwise, I admit it was a very good one."

"Well, there's nothing like enough metal yet for electrical contact that far," added Bendivence. "And I don't have any other ideas at the moment-though come to think of it, you might make a simple test on how well the humans can pick up lights."

"How?" the question came in body attitudes, not verbally.

"We could ask them innocently if there were any way of their hunting for the running lights or the floods of the missing fliers."

Barlennan pondered the suggestion briefly.

"Good. Excellent. Let's go-though if they say they can't, we won't be sure that they aren't just keeping it from us. You might be thinking of a further check for *that*." He led the way out of the map room where the discussion had been held, and along the corridors of the Settlement toward the communication room. Most of the passageways were relatively dark; the sponsors of the expedition had not stinted on the supply of artificial lights, but Barlennan himself had been rather close-nippered with their distribution. Rooms were adequately lighted; hallways had a bare minimum of illumination.

This gave the Mesklinites the comforting feeling that there was nothing overhead, by letting them see the stars without too much trouble. No native of that planet was really happy to face the fact that there was anything in a position to fall on him. Even the scientists glanced up occasionally as they went, taking comfort from the sigh even of stars not their own. Mesklin's sun, which men called 61 Cygni, was below the horizon at the moment.

Barlennan looked upward more than he looked ahead, but he was trying to get a glimpse of the human station. This carried a beacon light visible from Dhrawn as a fourth magnitude "star," and its barely visible crawl against the celestial background was the best long-term clock the Mesklinites had. They used it to rest the pendulum-type instruments which they had made, but which seldom agreed with each other for more than a few score hours at a time.

Stars and station alike faded from view as the trio entered the brightly lighted communication room. Guzmeen saw Barlennan and instantly reported, "No further news of either flier."

"What reports have you had from Dondragmer between the time the *Kwembly* ran aground and now-the last hundred and thirty hours or so? Do you know how long ago Don's first officer disappeared?"

"Only roughly, sir, to the last question. The incident was reported, but nothing specific was said about how recently it had happened. I took for granted it had just occurred, but didn't ask. The two disappearances were reported quite close together-less than an hour apart."

"And you didn't wonder when the second one came in why we heard about both disappearances so nearly simultaneously, even though they must have occurred some time apart?"

"Yes, sir. I started wondering about a quarter of an hour before you did, when the last message came in. I don't have any explanation, but I thought I'd leave it to you to ask the humans if you think one is needed."

Bendivence cut it. "Do you suppose Don failed to report the first disappearance because it resulted from a mistake, and he hopes to be able to minimize it by reporting disappearance and recovery at the same time as a minor incident?"

Barlennan looked at the speaker speculatively, but lost no time in answering.

"No, I don't suppose that. Dondragmer and I don't always agree on everything, but there are some things that neither of us would do."

"Even if an immediate report couldn't really make a difference? After all, neither we nor the human beings could really help even after we'd heard the news."

"Even then."

"I don't see why."

"I do. Take my word for it; I haven't time for a detailed explanation, and I doubt that I could compose one anyway. If Dondragmer failed to make that initial report, he had a very good reason; and personally I doubt very much that the failure was his. Guz, which humans gave you the reports? Was it always the same one?"

"No, sir. I didn't recognize all their voices, and they often didn't bother to identify themselves. About half the time nowadays the reports come in human language. Most of the rest come from the Hoffman humans. There are others who speak our language, but those two seem the only ones who do it comfortably. With the young one particularly, I got the impression that he'd been talking a lot with the *Kwembly*, and I assumed that if there were casual chatter going on, nothing much serious could be happening."

"All right. I'd probably have done the same. I'll use the set; I have a couple of questions to put to the humans." Barlennan took his place in front of the pickup, the speaker on watch making way for him without being ordered. The screen was blank. The captain squeezed the "attention" control and waited patiently for the minute to pass. He could have started talking at once, since it was a safe bet that whoever was at the other end would lose no time readying his receiver, but Barlennan wanted to see who was there. If the delay made anyone suspicious, he'd have to live with it.

The face which did appear was unfamiliar to him. Even fifty Earth-years of acquaintance with human beings had not sufficed to educate him in such matters as family resemblance, though no human being would have failed to guess that Benj was Easy's son. Actually, the fifty years had not supplied many different people for comparison; fewer than two score men, and no women, had even landed on Mesklin. Guzmeen recognized the boy, but was spared the need to tell Barlennan by Benj himself.

"Benj Hoffman here," the image spoke. "Nothing has come from the *Kwembly* since Mother called you about twenty minutes ago, and there are no engineers or scientists in this room at the moment. If you have questions which need technical answers, tell me so I can call the right one. If it's just a matter of detail in

what's been happening, I've been here in the comm room most of the time for the last seven hours and can probably tell you. I'm waiting."

"I have two questions," Barlennan responded. "one of them you can probably answer, the other I don't know. The first has to do with the second disappearance. I am wondering how far from the *Kwembly* the second helicopter was when it ceased communicating; or if you don't know the distance, perhaps you can tell me how long its pilot had been searching.

"The second does depend on a bit of your technology which I don't know, but you may. Is there any possibility of your seeing lights such as those on the helicopters from where you are? I suppose it couldn't be done by your unaided eyes any more than it could be done by mine, but you have many optical devices which I know little about, and probably some which I've never heard of. I'm standing by."

Benj's screen image held up one finger and nodded just as Barlennan finished speaking, but boy waited for the other question to reach him before he spoke.

"I can answer your first question, and Mr. Cavanaugh has gone to find someone who can take care of the second," were his opening words. "Kervenser started out on his scouting flight about eleven hours ago. It wasn't realised that he must be in trouble until about eight hours later, when everything popped at once-Kervenser and his flier gone, the *Kwembly* frozen in, and Beetchermarlf and Takoorch somewhere under the ice-at least no one knows that's where they are but they were working under the hull and there's no other place anyone can think of for them to be. One of the sailors-Reffel-took up the other flier with a vision set to look for Kervenser, and searched very close to the *Kwembly* for a while. Then we suggested that he move out to where an accident wouldn't have been seen or heard from the cruiser, which he did, and of course, Dondragmer lost sight of him from the bridge. Then we got into a discussion with the captain and everyone up here got interested, and it turned out that no one was watching Reffel's screen for several minutes. Then someone noticed that the screen had gone completely blank-not no-signal-*blank* but no-light *black*-and that was that."

Barlennan glanced at Guzmeen and the scientists. None of them spoke, but none of them needed to. No one had been watching the screen when Reffel used the shutter! It was not the sort of luck one counted on.

Benj was still speaking.

"The sound wasn't on, of course, since no one had been talking with Reffel, and no one has any idea what happened. This was just before my mother called you, less than half an hour ago. That would make something like two and a half hours between the two disappearances. We'll have to wait for your other answer, since Mr. Cavanaugh isn't back yet."

Barlennan was a little bewildered by the arithmetic, since the boy had used Mesklinite number-words with human number-background, but got it straight with a few seconds of thought.

"I'm not complaining," he returned, "but I gather from what you say that over two hours passed between the *Kwembly's* freezing in and Kervenser's disappearance, and our being told about it. Do you know why that might have happened? I realize, of course, that there was nothing I could have done, but there was some understanding about keeping me up to date with the land-cruisers. Of course, I don't know just what your job is at the station, and you may not have that information; but I hear from my communications man that you have been talking a lot to the *Kwembly*, so you may be able to help. I'm waiting."

Barlennan had several motives behind his closing remark. One was obvious enough; he wanted to learn

more about Benj Hoffman, especially since the latter was good with the Mesklinite language and, if Guz were right, seemed to want to talk to Mesklinites. Maybe he would be like the other Hoffman, a second sympathy-center in the station. If so, it would be important to know just how much weight he could swing.

Also, the commander wanted to check unobtrusively on Guzmeen's notion that Benj had been chattering with *Kwembly* crew members. Finally, even Barlennan could tell that Benj was young for a human being doing serious work—his selection of words and general narrative style had been a giveaway. That fact might well be put to good use if a reasonably close relationship could be established.

The boy's answer, when it finally came, was inconclusive one way, but promising in another.

"I don't know why you weren't told about Kervenser and the freeze-up right away," he said. Personally, I thought you had been. I'd been talking a lot with Beetchermarlf—I guess you know him; one of Don's helmsmen; the one you can talk with and not just listen to—and when I heard he'd disappeared I was concentrating on what could be done about it. I wasn't here in the comm room quite all the time; it's not my duty station—I just come when I can talk with Beetch. I admit someone should have told you sooner, and if you like I'll try to find out who should have and why he didn't. My mother ought to know, or Mr. Mersereau.

"I don't know how much explaining I'd better supply about the background to my job here. On Earth, when someone finishes basic education—the sort of thing everyone has to get, like reading and physics and sociology—he has to work as unskilled labor on some essential job for two or three of our years before he is eligible for either specialization or general higher education. Nobody says it right out, but everyone knows that the people your work for have the main say in what you can do afterward. Nominally I'm assigned to the aerology lab here as a sort of picker-upper and hey—you; actually anyone in the station who yells first and loudest gets me. I must admit they don't make my life very hard. I've been able to spend a lot of time talking to Beetch the last few days."

Barlennan was able with fifty years experience to translate without effort the thought behind a human being's use of the word *day*.

"Of course," the boy went on, knowing your language helps. My mother's a language nut, and I picked it up from her. She started on yours ten years ago when Dad was first connected with the Dhrawn project. I'll probably be doing comm work semiofficially a good deal of the time from now on. Here comes Mr. Cavanaugh with one of the astronomers whose name I think is Tebbetts. They'll answer your question about seeing lights, and I'll try to find out about the other business."

Benj's face was replaced on the screen by that of the astronomer—a set of broad, dark features which rather surprised Barlennan. He had never, as it happened, seen a bearded human being, though he was used to wider variations in cranial hair. Tebbetts' was a small Vandyke adornment quite compatible with a space helmet, but it made a drastic difference to the Mesklinite's eye. Barlennan decided that asking the astronomer about it would be tactless; it might be better to get the information from Benj later. There was nothing to be gained by embarrassing anyone.

The facial extension, to the commander's relief, did not interfere with its owner's diction, and Tebbetts had evidently been given the question already. He started to talk at once, using the human speech.

"We can detect from here any of the artificial lights you have, including the portables, though we might have trouble with beamed ones not pointed our way. We'd used regular equipment—photomultiplier mosaics behind appropriate objective; anything you're likely to need could be set up in a few minutes.

What do you want us to do?"

This question caught Barlennan by surprise. He had, in the few minutes since discussing the matter with this scientists, been going more and more certain that the men would deny being about to detect such lights. Certainly if the commander had been a little more foresighted he would not have answered as he did-in fact, he was regretting what he said well before the words reached the station.

"You should have no trouble spotting our land-cruiser *Kwembly*; you already know its location better than I do, and its bridge lights would be on. Its two helicopters have disappeared, and they normally carry lights. I'd like to have you scan the area, within, say, two hundred miles of the *Kwembly* as carefully as you can for other lights, and tell bother me and Dondragmer the positions of any you find. Would that take long?"

The message lag was quite long enough to let Barlennan realize how he had slipped. There was nothing to be done about it now, of course, but to hope, thought that word is a bad translation of the nearest possible Mesklinite attitude. The answer did cause him to brighten up a little; maybe the slip wasn't too serious-as long as the human beings didn't find more than two other lights near the *Kwembly!*

"I'm afraid I was thinking of merely detecting lights," said Tebbetts. "Pinpointing the sources will be harder, especially from here. I'm pretty sure we can solve your problem, though... that is, if your missing helis are shining their lights. If you think they may have crashed, I shouldn't think there'd be much chance of light, but I'll get right to it."

"How about their power plants?" asked Barlennan, demanded to learn the worst now that he had started. "Aren't there other radiations than light given off in nuclear reactions?"

By the time this question reached the station Tebbetts had left according to his promise, but fortunately Benj was able to supply the answer-the information happened to be basic to the Project, which had been carefully explained to him right after his arrival.

"The fusion converters give off neutrinos which we can detect, but we can't spot their source exactly," he told the commander. "That's what the shadow satellites are for. They detect neutrinos, which are practically all coming from the sun. The power plants on Dhrawn and up here don't count for much against that, even if it isn't much of a sun. The computers keep track of where the satellites are, and especially wheter the planet is between a given one and the sun, so there's a measure of the neutrino absorption through different parts of the planet. In a few years we hope to have a statistical X ray of Dhrawn-maybe that isn't a good analogy for you. I mean a good idea of the density and composition of the planet's insides. They're still arguing, you know, wheter Dhrawn should be called a planet or a star, and wheter the extra heat is from hydrogen fusion in the middle or radioactivity near the surface.

"But I'm sure as can be that they couldn't find your missing fliers from their neutrino emission, even if all their converters are still on."

Barlennan managed to conceal his glee at this news, and merely answered, "Thanks. We can't have everything. I take it you'll tell me when your astronomer finds anyth9ng, or when he is sure he'll find nothing; I'd like to know if I have to stop counting on that. I'm through talking for now, Benj, but call here if anything comes up on either the fliers or those friends of yours-after all, I'm concerned about them, though perhaps not the way you are about Beetchermarlf. Takoorch is the one I remember."

Barlennan, with more direct contact with human beings and, to be honest, more selfish reasons to develop such skills, had been able to read more accurately between the lines of Benj's talk and obtain a

more nearly correct picture of the boy's feelings than Dondragmer had. It would, he was sure, be useful; but he put it from his mind as he turned away from the communicator.

"That could be both better and worse," he remarked to the two scientists. "It's certainly just as well we didn't set up that blinker system for night communication; they'd have seen us certainly."

"Not certainly," objected Deeslenver. "The human said they *could* spot such slights, but there was no suggestion that they made a habit of looking for them. If it takes instruments, I'd bet the instruments are busy on more important things."

"So would I, if the stakes weren't so high," returned Barlennan. "Anyway, we wouldn't dare use it now, because we know they'll be looking this way with the best machines they have. We just asked them to."

"But they won't be looking here. They'll be searching the neighborhood of the *Kwembly*, millions of cables from here."

"Think of yourself back home looking up at Toorey. If you were supposed to examine one part of it closely with a telescope, how much of a slip would it take to make you glance at another?"

Deeslenver conceded the point with a gesture.

"Then we either wait for sunrise, or fly a special if we want to use the *Esket* as you suggested. I admit I haven't thought of anything else. I haven't even thought of what we might do there which would make a good test."

"It shouldn't matter too much. The real question would be how soon, and how accurately and completely, the human beings do report whatever we set up for them to see. I'll think of something in the next couple of hours. Aren't you researchers setting up for a flight to leave soon, anyway?"

"Not that soon," said Bendivence. "Also, I don't agree with you that details don't matter. You don't want them to get the idea that *we* could possibly have anything to do with that they see happen at the *Esket*, and they certainly aren't stupid."

"Of course. I didn't mean that they should. It will be something natural, making full allowance for the fact that the human beings know even less than we do about what's natural on this world. You get back to the labs and tell everyone who has equipment to get onto the *Deedee* that departure time has been moved ahead. I'll have a written message for Destigmat in two hours."

"All right." The scientists vanished through the door, and Barlennan followed them more slowly. He was just beginning to realize how valid Bendivence's point was. What could be made to happen, in range of one of the *Esket's* vision transmitters, which would not suggest that there were Mesklinites in the neighborhood, but which would attract human interest-*and* tempt the big creatures to edit their reports? Could he think of such a thing without knowing why the reports were being held up? Or, for that matter, without being quite sure that they were?

It was still possible that the delay on the *Kwembly* matter had been a genuine oversight; as the young human had suggested, each person might have thought that someone else had attended to the matter. To Barlennan's sailor's viewpoint this smacked of gross incompetence and inexcusable disorganization; but it would not be the first time he had suspected human beings-not as a species, of course, but on an individual basis-of these qualities.

The test certainly had to be made, and the *Esket's* transmitters must surely be possible tools for the purpose. As far as Barlennan knew, these were still active. Naturally, care had been taken that no one enter their field of view since the "loss" of the cruiser, and it had been long since any human being had made mention of them. They would have been shuttered rather than avoided, since this obviously left the Mesklinites at the place much greater freedom of action; but the idea of the shutters had not occurred until after Destigmat had departed with his instructions to set up a second Settlement unknown to the human beings.

As Barlennan remembered, one of the transmitters had been at the usual spot on the bridge, one in the laboratory, one in the hangar where the helicopters were kept-these had been out on routine flights when the "catastrophe" occurred-and the fourth in the life-support section, though not covering the entrance. It had been necessary to take much of the equipment from this chamber, of course.

With all the planning, the situation was still inconvenient; having the lab and life rooms out of bounds, or at best possible to visit with only the greatest care, , had caused Destigmat and his first officer caused Destigmat and his first officer, Kabremm, much annoyance. They had more than once requested permission to shutter the sets, since the technique had been invented. Barlennan had refused, not wanting to call human attention back to the *Esket*; but now-well, maybe the same net could take two fish. The sudden blanking of one, or perhaps all four, of those screens would certainly be noticed from above. Whether the humans would feel any inclination to hide the event from the Settlement there was no way of telling; one could only try.

The more he thought it over, the better the plan sounded. Barlennan felt the glow familiar to every intelligent being, regardless of species, who has solved a major problem unassisted. He enjoyed it for fully half a minute. At the end of that time, another of Guzmeen's runners caught up with him.

"Commander!" The messenger fell into step beside him in the nearly dark corridor. "Guzmeen says that you should come back to Communications at once. One of the human beings-the one called Mersereau-is on the screen. Guz says he ought to be excited, but isn't, because he's reporting something going on at the *Esket*-something is moving in the laboratory!"

X

Keeping in phase with Barlennan as he switched direction took some doing, but the messenger managed it. The command took his continued presence for granted.

"Any further details? When, or what was moving?"

"None, sir. The man simply appeared on the screen without any warning. He said, 'Something is happening at the *Esket*. Tell the commander.' Guzmeen ordered me to bring you back on hurricane priority, so I didn't hear any more."

"Those were his exact words? He used our language?"

"no, it was the human speech. His words were-" the runner repeated the phrase, this time in the original tongue. Barlennan could read no more into the words than had been implicit in the translation.

"The we don't know whether someone slipped up and was seen, or dropped something into the field of the lens, or-"

"I doubt the first, sir. The human could hardly have failed to recognize a person."

"I suppose not. Well, some sort of detail should be in by the time we get back there."

There wasn't, however. Boyd Mersereau was not even on the screen by the time Barlennan reached Communications. More surprising, neither was anyone else. The commander looked at Guzmeen suspiciously; the communication officer gave the equivalent of a shrug. "He just went, sir, after that one sentence about the lab."

Barlennan, mystified, squeezed the "attention" control.

But Boyd Mersereau had other things on his mind. Most, but not quite all, were concerned with events on Dhrawn, but not with the *Esket*; and there were a few matters much closer than the giant star-planet.

The chief of these was the cooling down of Aucoin. The planner was annoyed at not having been brought into the exchanges between Dondragmer and Katini, and the captain and Tebbets. He was inclined to blame young Hoffman for going ahead with policy-disturbing matters without official approval. However, he did not want to say anything which would annoy Easy; he regarded her, with some justification, as the most nearly indispensable member of the communications group. In consequence, Mersereau and others received some fallout from the administrator's deflected ire.

This was not too serious, as far as Boyd was concerned. He had years before pigeonholed the pacifying of administrators along with shaving-something which took up time but did not demand full attention, and worth doing at all only because it was usually less trouble in the long run. The real attention-getter, the thing which kept even news from the *Esket* in the background, was the state of affairs at the Kwembly...

By himself he might have been moderately concerned, but only moderately. The missing Mesklinites weren't close personal friends of his. He was civilized enough not to be any less bothered by their loss than if they had been human, but it was not as though they were his brothers or sons.

The *Kwembly* herself was a problem, but a fairly routine one. Land-cruisers had been in trouble before, and so far had always been extricated sooner or later. So, all in all, Mersereau would have been merely absorbed, not bothered, if left to himself.

He was not left to himself. Benj Hoffman felt much more strongly about the whole matter, and had a way of making his feelings clear. This wasn't entirely by talking, though he was perfectly willing to talk. Even when silent he empathized. Boyd would find himself discussing with Dondragmer the progress of the melting-out plan, or the chances of another flood in terms of their effect on the missing helmsmen, rather than with reasonable proper professional detachment. It was annoying. Beetchermarlf and Takoorch, and even Kervenser, just weren't that central to the work, and the real question was the survival of the crew. Benj, sitting silently beside him, or, at most, interjecting a few remarks or questions, somehow managed to make objectivity seem like callousness; and Mersereau, who had never raised any children of his own, had no defense against that particular treatment. Easy knew perfectly well what was going on, but she did not interfere because she shared almost perfectly her son's feelings. Partly because of her own background she felt a very intense sympathy for Beetchermarlf and his companion, and even for Takoorch. She had been caught in a rather similar situation some twenty-five years before, when a concatenation of errors had stranded her in a n unmanned research vessel on a high-temperature, high pressure planet.

In fact, she went to greater lengths than Benj dared. Dondragmer might-probably would-have sent out a ground part to the site of Reffel's disappearance, since the location was fairly well known; but it was unlikely that he would have risked sending one of his three remaining communicators along. Easy, partly by straight forward argument in her own name and partly by using her son's techniques to swing

Mersereau to the same side, convinced the captain that the risk of *not* taking the equipment along would be even greater. This discussion, like so many others, was conducted in Aucoin's absence, and, even as he argued with Dondragmer, Mersereau was wondering how he would justify this one to the planner. Nevertheless, he argued on Easy's side, with Benj almost grinning in the background.

With this claim on his attention, Boyd scarcely noticed the call from another observer that a couple of objects were moving across the screen which showed the *Esket's* laboratory. He switched channels briefly and passed the word on to the Settlement, cutting back to the *Kwembly* without waiting for the end of the communication cycle. Later he claimed that he never been really conscious of the *Esket's* name in the report; he had thought of the message as a routine report from some observer or other, and his principal feeling had been one of irritation at being distracted. Some people would have snapped at the observer; Boyd, being the person he was, had taken what seemed to him the quickest and simplest way of disposing of the interruption. He had then quite genuinely forgotten the incident.

Benj had paid even less attention. The *Esket* incident had occurred long before his arrival at the station, and the name meant nothing in particular to him, although his mother had once mentioned her friends Destigmat and Kabremm to him.

It was easy, of course, who had really reacted to the call. She scarcely noticed what Mersereau did or said, and never thought of telling Barlennan herself until more details came in. She moved immediately to a chair coming a view of the "lost" cruiser's screens and relegated the rest of the universe to background status.

Barlennan's return call, therefore, brought him very little information. Easy, to whom it was passed, had seen nothing herself; by the time she had reached her new station all motion had ceased. The original observer was only able to say that he had seen two objects, a reel of cable, or rope, and a short length of pipe, roll across the *Esket's* laboratory floor. It was possible that something might have pushed them, though there had been no sign of life around the vehicle for several terrestrial months; it was equally possible, and perhaps more probable, that something had tilted the *Esket* to start them rolling. SO said the observer, though he could not suggest specifically what might have tipped the monstrous machine.

This left Barlennan in a quandary. It was possible that one of Destigmat's crew had become careless. It was possible that natural causes might be operating, as the humans seemed to prefer to believe. It was also possible, considering what Barlennan himself had just been planning to do, that the whole thing was a piece of human fiction. The command's science made him attach rather more weight to this possibility than he might have done in other circumstances.

It was hard to see just what they could expect to accomplish by such a fiction, of course. It could hardly be a trap of any sort; there could be no wrong reaction to the story. Complete mystification was the only possible response. If there were something deeper and more subtle involved, Barlennan had to admit to himself that he couldn't guess what it was.

And he didn't like guessing anyway. It was so much easier to be able to take reports at face value, allowing only for the capabilities of the speaker and not worrying about his possible motives. A time the commander reflected, the annoying straightforwardness of Dondragmer which made him disapprove of the while *Esket* trick had something to be said for it.

Really, all one could do was assume that the report was a truthful one; that should, at least, cause anything underhanded on the human side to backfire on its planners. In that case, there was nothing to do except check with Destigmat. That was simply another message to send on the *Deedee*.

Come to think of it, this was another potential check on the accuracy of the human reports. Certainly this one, whatever else could be said for or against it, showed signs of having come through quickly. Of course, Mrs. Hoffman was involved this time.

The thought that Easy's involvement had the situation a special one was probably the only idea Barlennan and Aucoin would have had in common just then. Of course, the latter hadn't heard anything about the new *Esket* incident so far, and even Mersereau hadn't really thought about it. He was still otherwise engaged.

"Easy!" Boyd turned from his microphone and called across to her new station. "We seem to have convinced Don. He's sending a vision set with his six-man search party. He wants to check his own estimate of the distance to where Reffel vanished, and assumes that we can pinpoint where his transmitter was. I know we could have at the time, but I'm not sure that would have been recorded. Do you want to take over here while I check up with the mappers, or would you rather go yourself?"

"I want to watch here a little longer. Benj can go up, if he can stand leaving the screens for a minute." She looked only half-questioningly at the boy, and he nodded and disappeared at once. He was gone rather longer than expected, and returned with a somewhat crestfallen appearance.

"They said they'd gladly give me the map made from the first part of Reffel's flight, before I had told him to go on out to where he could barely see the *Kwembly*. All they could say about where he disappeared was that it must be off that map, which covers the width of the valley for about a mile westward of the cruiser."

Mersereau grunted in annoyance. "I'd forgotten about that." He turned back to his microphone to relay this not very helpful information to Dondragmer.

The captain was neither particularly surprised nor greatly disturbed. He had already discussed his own estimate of the distance and direction involved with Stakendee, who was leading the search party.

"I suppose the human beings were right about having you take the set along," the captain had remarked. "It will be a nuisance to carry and I don't much like risking its loss, but having it will cut down the risk of losing you. I'm still concerned about a repetition of the flood that brought us here, and the people up above can't give us any definite prediction-though they seem to agree that there should indeed be a flood season coming. With the set, they'll be able to warn you if they get any definite information, and you'll be able to tell me, through them, if you do find anything."

"I'm not sure in my own mind what's best to do if a flood does come," said Stakendee. "Of course if we're close to the *Kwembly* we'll do our best to get back aboard, and I suppose if we're really distant we'd make for the north side of the valley, which seems to be nearer. In a borderline case, though, I'm not sure which would be best; surviving the flood would do us little good if the ship got washed a year's walk farther downstream."

"I've been thinking about that, too," replied the captain, "and I still don't have an answer. If we're washed away again there's the very large chance the ship will be ruined. I can't decide whether we should take time to get life-support equipment out and set up on the valley side even before we go on with trying to melt her out. Your own point is a good one, and maybe I should have it there for your sake as well as ours. Well I'll solve it. Get on your way. The sooner this is done, the less we'll have to worry about floods."

Stakendee gestured agreement, and five minutes later Dondragmer saw him and his group emerge from

the main lock. The communicator gave the part a grotesque appearance; the black of plastic, four inches high and wide and twelve in length, was being carried in a little fashion by two of the searchers. The three-foot poles were only two inches apart, supported on yokes at the mid-point of the eighteen-inch-long bodies of the bearers. The poles and yokes had been fashioned from ship's stores; the Mesklinite equivalent of lumber, of which literally tons filled some of the store compartments, formed another of the incongruities which the nuclear-powered cruiser offered in such profusion.

The search party rounded the bow of the *Kwembly*, which was facing northwest, and proceeded straight west. Dondragmer watched its lights for a few minutes as they wound around and over the boulders, but had to turn to other matters long before they were out of sight.

Elongated figures were swarming over the hull working the radiator bar loose. Dondragmer had not liked to give the order for such destructive activity; but he had weighed as best he could the relative risks of doing it or of leaving it undone, and after reaching a decision he was not sufficiently human to keep on worrying whether or not it had been a good one. Just as most human beings thought of Drommians as typically paranoid, most Mesklinites who knew them at all thought of human beings as typically vacillating. Dondragmer, the decision made and the order given, simply watched to make sure that a minimum of damage was done to the hull. From the bridge he was unable to see over its curve to the point, far astern, where the conductors came through; he would have to go outside a little later to oversee that part of the work. Maybe it would be even better to take a vision set outside and let the human engineers supervise it. Of course, with the communication delay it would be difficult for them to stop a serious error in time.

For the moment, though, the job could be left in Praffen's nippers. The problem the captain had mentioned to Stakendee needed more thought. The life-support equipment was easy to dismount, and he could spare the men to transport it without cutting into the ice-removal project too badly; but if a flood came while it was ashore and carried the *Kwembly* a long distance, things might become awkward. The system was a closed-cycle one using Mesklinite plants, depending on the fusion converters for its prime energy. By its nature, it had just about the right of vegetation to take care of the crew—had there been much more there would not have been enough Mesklinites to take care of the plants. It might be possible to carry part of it away and leave the rest, and expand each half to take care of the whole crew whenever circumstances forced the decision between ship and shore; it would be easy enough to make more tanks, but growing either culture up to a population sufficient to supply hydrogen for the whole crew might be a little tense on time.

In a way it was too bad that all the communication went through the human station. One of the major and primary tasks of the *Esket* crew was to modify the old system, or to produce a new one, with much more flexibility in the number of people it could take care of; and for all Dondragmer knew, this end might have been accomplished months ago.

His musings were interrupted by the communicator.

"Captain1 Benj Hoffman here. Would it be too much trouble to set up one of the viewers so that we could watch your men work on the melting project? Maybe the one on the bridge would do if you just slid it out to starboard and faced it aft."

"That will be easy enough," replied the captain. "I was thinking perhaps it would be well for some of you people to watch the work."

Since the set weighed less than five hundred pounds in Dhrawn's gravity, it was only its rather awkward dimensions which gave him trouble; he faced about the same problem as a man trying to move an empty refrigerator carton. By pushing it along the deck, rather than trying to pick it up, he worked it into a good

position in a few seconds. In due course, the boy's acknowledgment came back.

"Thanks captain; that's good. I can see the ground along the starboard side, and what I suppose is the main lock, and some of your people working along the side. It's a little hard to judge distances, but I know how big the *Kwembly* is and about how far back the main lock is, and, of course, I know how big your people are, so I'd guess your lights let me see the ice for fifty or sixty yards on past the lock."

Dondragmer was surprised. "I can see fully three times that far; no, wait; you're using your twelve based numbers so it's not that much-but I do see father. Eyes must be better than the pickup cells in your set. I hope, though, that you are not just watching what goes on here. Are the other screens for the *Kwembly* sets all where you can see them? Or are there other people watching them? I want to be kept in as close touch as I possibly can with the search party that has just left on foot. After what happened to Reffel, I'm uneasy about both them and their set."

Dondragmer was debating with his own conscience as he sent this message. On the one hand, he was pretty certain that Reffel had shuttered his set deliberately, though it was even less clear to him than to Barlennan why this should have been necessary. On the other was his disapproval of the secrecy of the whole *Esket* maneuver. He would not, of course, deliberately ruin Barlennan's plans by any act of his own; but he would not be too disappointed if everything came out in the open. There certainly was a reasonable chance that Reffel was in real trouble; if, as seemed likely, whatever had happened to him had occurred only a few miles away, he had had time to get back and explain even on foot.

In other words, Dondragmer had a good excuse, but disliked the thought that he even needed one. After all, there was Kervenser, too.

"al four screens are right in front of me," Benj's assurance came back. "Just now I'm alone at this station, though there are other people in the room. Mother is about ten feet away, at the *Esket* screens-did anyone tell you that something moved on one of those?-and Mr. Mersereau has just gone off for another argument with Dr. Aucoin." (Barlennan would have given a great deal to hear that sentence.) "There are about then other observers in the room watching the other sets, but I don't know any of them very well. Reffel's screen is still blank, five people are working in whatever room in the *Kwembly* your other set is in but I can't tell you just what they're doing, and your foot party is just walking along. I can see only a few feet from them, and only in one direction of course. The lights they're carrying aren't nearly as strong as the ones around the *Kwembly*. If anything does come after them, or some trouble develops, I may not even get as much warning as they do; and of course, there'll be the delay before I could tell them anyway."

"Will you reminded them of that?" asked Dondragmer. "The leader is named Stakendee. He doesn't have enough of the human language to do any good. He may very well be depending too heavily on you and your equipment for warning; I'm afraid I took for granted, without saying much of anything about it, that your set would help him that way when we were planning the search. Please tell him that it is strictly an indirect communicator between him and me."

The boy's response was considerably longer in coming than light lag alone would explain; presumably he was carrying out the request without bothering to acknowledge its receipt. The captain decided not to make a point of the matter; Hoffman was very young. There was plenty else to keep Dondragmer busy, and he occupied himself with this, filing the unfinished conversation until Benj's voice once more reached the bridge.

"I've been in touch with Stak and told him what you asked. He promised to take care, but he's not very far from the *Kwembly* yet- still among the stones, and they give out a little way upstream, you remember.

He's still on the map, I think, though I can't really tell one square yard of that rock garden from another. It's either smooth ice, or ice with cobblestones sticking up through it, or occasionally cobblestones with no ice between them. I don't see how they're going to search it very effectively. Even if you climb on the highest rock in the neighborhood, there are a lot of others you can't see behind. The helicopters aren't very big, and you Mesklinites are a lot smaller."

"We realized that when we sent out the party," Dondragmer answered. "A really effective search will be nearly impossible among the stones if the missing people are dead or even helpless. However, as you said, the stones give way to bare rock a short distance from here; and in any case, it is possible that Kerv or Reffel could answer calls, or call for help themselves. Certainly one can be heard much farther than he can be seen, at night. Also, whatever is responsible for their disappearance may be bigger or easier to spot." The captain had a pretty good idea how Benj would answer the last sentence. He was right.

"Finding whatever that is by having another group disappear wouldn't put us much farther ahead."

"It would if we actually learned what had happened. Keep in close touch with Stakendee's party, please, Benj. My own time is going to be taken up with other matters, and you'll learn whatever happens half a minute before I could anyway. I don't know that those seconds will make much real difference, but at least you're closer to Stak in time than I am.

"Also, I have to go outside now. We're getting to a ticklish point in taking this metal bar off the hull. I'd bring one of the sets outside to keep in closer touch with you, but I wouldn't be able to hear you very well though a suit. The volume of these communicators of yours isn't very impressive. I'll give you a call when I'm back in touch; there's no one handy to leave on watch here. In the meantime please keep a running log, in any way you find convenient, on what happens to Stakendee."

The captain waited just long enough to receive Benj's acknowledgement-which did arrive this time-before making his way down to the lock and donning his airsuit. Preferring an inside climb to an outside one, he took the ramps back to the bridge and made use of the small lock which gave onto the top of the hull-a U-shaped pip of liquid ammonia just about large enough for a Mesklinite body. Dondragmer unsealed and lifted the inner lid and entered the three-gallon pool of liquid, the cover closing by its own weight above him. He followed the curve down and up again, and emerged through a similar lid outside the bridge.

With the smooth plastic of the hull curving down on all sides, except aft, he felt a little tense, of course; but he had long ago learned to control himself even in high places. His nippers flashed from one holdfast to another as he made his way aft to the point where the few remaining refrigerator attachments were still intact. Two of these were the ones which extended entirely though the hull as electrical contacts, and were therefore, the ones which caused Dondragmer the most concern. The others, as he had hoped, were prying out of the cruiser's skin like nails; but these last ones would have to be severed, and severed so they could be reconnected later on. Welding and soldering were arts which Dondragmer knew only in theory, but whatever substitute was to be used would certainly need a stub projecting from the hull as a starting point. The captain wanted to make particularly sure that the cutting was done far enough out to leave one.

The cutting itself, as he had already been told, would be no trouble with Mesklinite saws. He selected carefully the points where the cuts were to be made, and saw two of his sailors started on this task; he warned the rest to get out of the way when the bar was free. This meant not only down to the surface but well away from the hull; the idea was to lower the metal on the lock side, once it was detached, but Dondragmer was a cautious being where weights were concerned and knew that the bar might just possibly not wait to be lowered. Even a Mesklinite would regret being underneath when it descended

from the top of the hull, feeble as Dhrawn's gravity seemed to them.

All this had taken the best part of an hour. The captain was wondering about the progress of the foot party, but there was another part of the melting project to check first. He reentered the ship and sought the laboratory, where Borndender was readying a power unit to fit the makeshift resistor. Actually there was little to be done; polarized sockets, one at one end of the block and one at the other, would provide direct current if the bar could be gotten into the holes, and any changes needed to make a fit possible would have to be made on the bar rather than the power box. It took only a moment to make this clear to the captain, who looked for himself, decided the scientist was obviously right, and made his way hastily back to the bridge. Only when he got there and tried to call Benj did he realize that he had never removed his airsuit; talking to Borndender through it was one thing, but the radio was quite another. He stripped it off far enough to get his speaking-siphon into the open and spoke again.

"I'm back, Benj. Has anything happened to Stakendee?" He finished removing the suit while waiting for the answer, smoothed it, and stowed it close to the center hatchway. It didn't belong there, but there wouldn't be time to get it down to the rack by the main lock and return before Benj's words.

"Nothing really important, as far as I can tell, Captain," came the boy's voice. "They've walked a long way, though I can't tell just how far-maybe three miles since you went, but that's a guess. There has been no sign of either flier, and the only thing they, or I, have seen which might possibly have affected either of them has been an occasional patch of cloud a few hundred feet up-at least, that's what Stak guesses; I can't see well enough myself-drifting back toward the *Kwembly*. I suppose if you accidentally flew into a big cloud you might get disoriented and if it was low enough crash before you could straighten out; there aren't any blind flying instruments on those things, are there? But it's hard to believe they'd do such a thing-of course, if they were keeping their eyes on the ground instead of their flying-but none of the clouds we've seen so far is anywhere near big enough to give them time to lose their way, Stak says."

Dondragmer was inclined to share this doubt about clouds being responsible-would have doubted it even had he not had reason for another opinion. An upward glance showed that no clouds had yet reached the *Kwembly*; the stars twinkled everywhere. Since Benj had said they were coming toward the cruiser, the ones Stakendee had seen must be at the edge of the pattern, and they must have been much farther to the west when the fliers were up. This might mean nothing as far as Kervenser was concerned-he could have been a long, long way from the *Kwembly*-but suggested that Reffel at least had not encountered them. He brought his attention back to Benj, who had not paused for a reply.

"Stak says the stream bed is going uphill noticeably, but he didn't tell me how he knew-just that they'd gone up several feet since leaving the *Kwembly*." Pressure change, Dondragmer assumed; it was always more noticeable in the suits. Just climbing around on the hull made a difference in suit tightness which could be felt. Besides, the stream which had carried cruiser here had been flowing fairly fast; even allowing for Dhrawn's gravity, its fall must be fairly great. "The only other real change is the nature of the bottom. They're well away from the cobbles. It's mostly bare rock, with patches of ice in the hollows."

"Good. Thank you, Benj. Have your weathermen come up with anything at all about the likelihood of another flood?"

The boy chuckled, though the sound meant little to the Mesklinite. "Nothing, I'm afraid. Dr. McDevitt just can't be sure. Dr. Aucoin was complaining about it a little while ago, and my boos just cut loose. He said that it had taken men a couple of centuries to get where they could make a reliable ten-day forecast on Earth, with only one phase-varying component-water-and the whole planet accessible for measurement. Anyone who expected much in a couple of years for a world as big as Dhrawn which had been covered to the extent of about one back yard and had two phase-variables and a temperature range from fifty to over a thousand degrees Kelvin must still believe in magic. He said we were lucky the weather hadn't

produced ice fields that turned into swamps when the temperature dropped and rainstorms six feet deep with clear air underneath but icing up the cruise bridges and forty other things that his computer keeps coming up with every time he changes another variable. It was funny watching Dr. Aucoin try to calm him down. Usually it's the other way around."

"I'm sorry I wasn't there to hear it. You seem amused," replied the captain. "Did you tell your chief about the clouds which Stakendee has reported?"

"Oh, certainly. I told everyone. That was only a few minutes ago, though, and they haven't come back with anything yet. I really wouldn't expect them to, Captain; there just isn't enough detailed information from the surface for interpolation, let alone prognosis. There *was* one thing though; Dr. McDevitt was very interested in finding out how many feet Stak's group had climbed, and he said that if the clouds they reported hadn't reached the *Kwembly* yet he wanted to know as exactly as possible the time they do. I'm sorry; I should have reported that earlier."

"it doesn't matter," replied Dondragmer,. "The sky is still clear here. I'll let you know the moment I see any clouds. Does this mean that he thinks another fog is coming, like the one which preceded the last flood?" In spite of his inborn defenses against worry, the captain waited out the next minute with some uneasiness.

"He didn't say, and he wouldn't. He's been caught to wrong too many times. He won't take the chance again, If I know him, unless it's a matter of warning you against some very probably danger... wait. There's something on Stak's screen. Dondragmer's many legs tensed under him. "Let me check... yes, all Stak's men but one are in sight, and that one must be carrying the back end of the set because it's still moving. There's another light ahead. It's brighter than the ones we're carrying-at least, I think so, but I can't really tell its distance. I'm not sure where Stak's people have seen it yet-but they should have; you said your eyes are better than the pickups.

"Mother, do you want to get in on this? And should we call Barlennan? I'm keeping Don posted.

"Yes, Stak has seen it and his party has stopped moving. The light isn't moving either. Stak has the sound volume up, but I can't hear anything that means anything to me. They've put the transmitter down, and are fanning out in front of it; I can see all six of them now. The ground is nearly bare, only an occasional patch of ice. No rocks. Now Stak's men have put out their lights, and I can't see anything except the new one. It's getting brighter, but I guess it's just the pickup cells reacting to the darker field. I can't see anything around it; it looks a little foggy, if anything. Something has blocked it for a moment; no, it's on again. I could see enough of a silhouette to be pretty sure it was one of the search party-he must have reared up to get a better look ahead. No I can hear some hooting, but isn't not any words I know. I don't see why... wait.

"Now Stak's people are turning their lights back on. Two of them are coming back toward the set-they're picking it up and bringing it forward toward the rest of the group. All the lights are well in front with them, so I can see pretty well now. There's mist blowing past only a few feet-maybe a few inches-up; the new light *is* up in it a little way. I can't judge its distance yet at all. The ground has no marks to help; just bare stone, with six Mesklinites flattened down against it, and their lights, and a dark line beyond them which might be different colored rock, or maybe a narrow stream slanting toward them from the far left and going out of sight to my right. Now I get a vague impression of motion around the new light. Maybe it's around the running light of a helicopter-I don't know how they're arranged, or how high off the ground they are when the machine is parked, or how bright they are.

"Now it's clearer... yes, there's something moving. It's coming toward us,. Just a dark blob in the mist.

It's not carrying any light. If my guess at distance means anything, which it probably doesn't, it's about the same size as the Mesklinites. Maybe it's Kervenser or Reffel-

"Yes. I'm almost sure it's a Mesklinite, but still too far away for me to recognize. I'm not sure I'd know either of those two anyway. He's crossing that line-it must be a stream; some liquid splashed up for a split second into the path of the light-now he's only a few yards away, and the others are converging on him. They're talking, but not loudly enough for me to make any of it out. The group is milling around, and I can't recognize anyone. If they'd come a little closer, I'd ask them who's there, but I suppose they'll report pretty soon anyway, and I can't make them hear through the airsuits unless they're right beside the set. Now they're all coming this way, and the bunch is opening out-two of them are right in front of the set; I suppose it's Stakendee and the one who's just-

He was interrupted by a voice which originated beside him. It reach not only his ear, but three open microphones, and through them three different receivers on Dhrawn; and there it produced three very different results.

"Kabremm! Where have you been all these months?" cried Easy.

XI

It really wasn't quite Kabremm's fault, though Barlennan was a long time forgiving him.. The transmitter had been away from the lights. When the newcomer had first joined Stakendee's group he had not been able to see it; later he had failed to notice it; and not until he was within a foot or two did he recognize it. Even then he wasn't worried greatly; human beings all looked alike to him, he assumed that his own people looked at least as indistinguishable to the humans, and while he would not have put himself deliberately in view, a sudden withdrawal, or any attempt to hide, would have been far more suspicious than staying calmly where he was.

When Easy's voice erupted from the speaker with his name, it was obviously sixty-four seconds too late to do anything. Stakendee, whose reflex response to the sound was to reach for the shutter on the top of the vision set, realized in time that this would only make matters worse.

What they should do was far from obvious to either of them. Neither was an expert in intrigue, though Mesklin's culture was no more innocent of political deceit than it was of the commercial variety. Neither was particularly quick-witted.

Kabremm, unlike Dondragmer, approved enthusiastically of the *Esket* project and of keeping it secret from the aliens. Even the *Kwembly's* commander, a straightforward type who would be desirable for the Mesklinite group on Dhrawn to be as completely self-sustaining as [possible; Kabremm and Destigmat not only admitted it but regarded it as the most important of the problems facing the expedition. Barlennan, who had to use this as an excuse and to give the *Esket's* crew responsibility for setting up the secret base.

Kabremm was, therefore, horrified at his slip, but utterly unable to think of anything to do about it-at least, anything not likely to conflict with what Barlennan was likely to do when the news reached him. He froze before the transmitter, wondering what would be his best line of action.

Barlennan, who also heard Easy's cry, was in exactly the same situation. He hadn't the slightest idea how or why Kabremm had wound up anywhere near the *Kwembly*, though the incident of Reffel's communication cutoff had prepared him for something of the sort. Only one of the three dirigibles was

employed on the regular shuttle run between the *Esket* site and the Settlement; the other were under Destigmat's control and were usually exploring. Still, Dhrawn was large enough to make the presence of one of them in the *Kwembly's* neighborhood a distinct surprise.

However, it seemed to have happened. It was simply bad luck, Barlennan assumed-compounded by the fact that probably the only human being in the universe who could possibly have recognized Kabremm by sight had been in a position to see him when the slip occurred.

So the human beings now knew that the *Esket's* crew had not been obliterated. No provision had been made for such a discovery; no planned, rehearsed story existed which Barlennan could count on Kabremm's using. Maybe Dondragmer would fill in-he could be counted on to do his best, no matter what he thought of the whole matter-but it was hard to see what he *could* do. The trouble was that Barlennan himself would have no idea what Dondragmer said, and would not know what to say himself when questions came, as they surely would, toward the Settlement. Probably the safest tactic was to claim utter ignorance, and ask honestly for as complete a report as possible from Dondragmer. The captain would at least keep Kabremm, who had obviously been playing the fool, from leaking the whole cask.

It was fortunate for Barlennan's peace of mind that he did not realize where Kabremm had been met. Easy, a few seconds before her cry of recognition, had told him that Benj was reporting something from a *Kwembly* screen, or he would have assumed that Kabremm had inadvertently stepped into the field of view of an *Esket* communicator. He knew no details about the search party of Stakendee, and assumed the incident to be occurring *at* the *Kwembly* and not five miles away. The five miles was just as bad as five thousand, under the circumstances; communication between Mesklinites not within hooting range of each other had to go through the human linkage, and Dondragmer was in no better position to cover the slip than Barlennan himself. However, the *Kwembly's* captain managed to do it, quite unintentionally.

He, too, had heard Easy's exclamation, much more loudly than Barlennan in view of the woman's position among the microphones. However, it had been little more than a distraction to him, for his mind was wholly taken up with some words Benj had uttered a few seconds before. In fact, he was so disturbed by them as to do something which everyone at all experience in Dhrawn-satellite communication had long learned not to do. He had interrupted, sending an urgent call of his own pulsing upward to the station while Benj was still taking.

"Please! Before you do anything else, tell me more about that liquid. I get the impression from what you've said that there is a stream flowing in the riverbed in view of Stakendee's vision pickup. If that is the case, please send these orders immediately: Stak, with two men to carry the communicator, is to follow that stream upward immediately keeping you and through you me informed of its nature-particularly, is it growing any larger? The other three are to follow it down to find how close it comes to the *Kwembly*; when they have ascertained this they are to come in with the information at once. I'll worry about whom you've found later on; I'm glad one of them has turned up. If this trickle is the beginning of the next flood, we'll have to stop everything else and get life-support equipment out of the ship and out of the valley. Please check, and get those orders to Stakendee at once!"

This request began to come in just as Easy finished her sentence and long before either Kabremm or Barlennan could have got a reply back to it./ Mersereau and Aucoin were still gone, so Benj had no hesitation about passing Dondragmer's orders along; and Easy, after a second or two of thought, shelved the Kabremm question and reported the same information to Barlennan. If Don saw the situation as an emergency, she was willing to go along with his opinion; he was on the scene. She did not take her eyes from the screen which showed Kabremm's image, however; his presence still needed explanation. She,

too, helped Barlennan unwittingly at this point.

After completing the relay of Dondragmer's orders, she added a report of her own which clarified much for the commander.

"I don't know how up to date you are, Barl; things have been happening rather suddenly. Don sent out a foot party with a communicator to look for Kervenser and Reffel. This was the group which is bothering Don so much, and at the same time ran into Kabremm. I don't know how he got there, thousands of miles from the *Esket*, but we'll get his story and relay it to you as soon as we can. I've sometimes wondered wheter he and any of the others were alive, but I never really hoped for it. I know the life-support equipment in the cruisers is supposed to be removable in case the vehicles had to be abandoned; but there was never any sign of anything being taken from the *Esket*. This will be useful news as well as pleasant; there must be some way for you people to live on at least some parts of Dhrawn without human equipment."

Barlennan's answer was a conventional acknowledgement-plus-thanks, given with very little of his attention. Easy's closing sentence had started a new train of thought in his mind.

Benj had paid little attention to his mother's words, having a conversation of his own to maintain. He relayed Dondragmer's command to the foot party, say the group break up accordingly-though he failed to interpret the confusion caused by Kabremm's telling Stakendee how he had reached the spot-and reported the start of the new mission to the captain. He followed the report, however, with comments of his own.

"Captain, I hope this isn't going to take all your men. I know there's a lot of work in getting your life equipment to the bank, but surely you can keep on with the job of melting the *Kwembly* loose. You're not just giving up in the ship, are you? And you still have Beetch and his friend underneath-you can't just abandon them. It won't take many men to get the heater going, it seems to me."

Dondragmer had formed by now a pretty clear basic picture of Benj's personality, though some detailed aspects of it were fundamentally beyond his grasp. He answered as tactfully as he could.

"I'm certainly not giving up the *Kwembly* while there's any reasonably chance of saving her," he said, "but the presence of liquid only a few miles away forces me to assume that the risk of another flood is now very high. My crew, as a group, comes first. The metal bar we have cut form the hull will be lowered to the ground in a few more minutes. Once that is done, only Borndender and one other man will be left on the heater detail. Everyone else, except of course, Stakendee's crew, will start immediately carrying plant tanks and lights to the side of the valley. I do not want to abandon my helmsmen, but if I get certain news that high water is on the way we are all going to head for higher ground wheter or not any are still missing. I gather you don't like the idea, but I am sure you see why there is no other possible course." The captain fell silent, neither knowing nor greatly caring wheter Benj had an answer for this; there was too much else to consider.

He stood watching as the heavy length of metal, which was to be a heater if everyone's ideas worked out, was eased toward the *Kwembly's* starboard side. Lines were attached to it, snubbed around the climbing holdfasts, and held by men on the ice who were carefully giving length under the orders of Praffen. The latter, perched on the helicopter lock panel with his front end reared four inches higher, watched and gestured commands as the starboard par of the long strip of metal slid slowly away form him and the other side approached. Dondragmer cringed slightly as the sailor seemed about to be brushed off the hell by the silvery length of alloy, but Praffen let it pass under him with plenty of legs still

on the plastic and at least three pairs of pincers gripping the holdfasts. With this personal risk ended he let the rope men work a little fast, and it took less than five more minutes to get the bar down to the ice.

Dondragmer had redonned his airsuit during the last part of the operation and gone out on the hull again, where he hooted a number of orders. Everyone else outside obediently headed for the main lock to start transferring the life support equipment; the captain himself reentered the bridge to get back in radio contact with Benj and Stakendee.

The boy had said nothing during the lowering-away, which had been carried out in view of the bridge communicator. What he could see required no explanation. He was a little unhappy at the disappearance of the crew afterward, for, of course, Dondragmer had been right; Benj did not like the idea of the entire group being diverted to the abandon-ship operation. However, the emergency of two Mesklinites with a power box gave him something to watch besides Stakendee's upstream crawl on the adjacent screen.

Benj did not know which of the two was Borndender, but wasn't worried. Their actions were of more interest. And their troubles with the radiator made interesting watching.

The wire was rigid enough to have held its shape fairly well as it was moved, and now lay flat on the ice in much the same form it had had when attached to the hull-that is, rather like a long, narrow hairpin near the center where it outlined the helicopter lock, and the cut ends some two feet apart. The original vertical component of its curvature which had been impressed by the shape of the hull had flattened out under gravity. The unit had been turned over during the lowering so that the prongs which had attached it to the plastic were now pointing upward; hence there was good contact with the ice for practically its entire length.

The Mesklinites spent a few minutes trying to straighten it out; Benj got the impression that they wanted to run it around the side of the hull as closely as possible. However, it finally appeared to dawn on them that the free ends would have to be close together in order to go into the same power box, so they left the wire along and dragged the power unit aft. One of them examined the holes in the box and the ends of the wire carefully, while the other stood by.

Benj could not see the box very well, since its image on the screen was very small, but he was familiar with similar machines. It was a standard piece of equipment which had needed very little modification to render it usable on Dhrawn. There were several kinds of power takeoff on it besides the rotating field used for mechanical drive. The direct electrical current which Borndender wanted could be drawn from any of several places; there were contact plates on opposite sides of the box which could be energized, several different sizes of jack-type bipolar sockets, and simple unipolar sockets at opposite ends of the box. The platters would have been easiest, but the Mesklinites, as Benj learned later, had dismissed them as too dangerous; they chose to use the end sockets. This meant that one end of the "hairpin" had to go into one end of the unit, and the other into the other end. Borndender already knew that the wire was a little large for the holes and would have to be filed down, and had brought the appropriate tools with him; this was no problem. Bending the ends, however, so that short lengths of them pointed toward each other, was a different matter. While he was still working on this problem, the rest of the crew emerged from the main lock with their burden of hydroponic tanks, pumps, lights and power units, and headed northward toward the side of the valley. Borndender ignored them, except for a brief glance while he was wondering whether he could commandeer some assistance.

The two ninety-degree bends he had to make were not entirely a matter of strength. The metal was of semicircular cross section, about a quarter of an inch in radius-Benj thought of it as heavy wire, while to the Mesklinites it was bar stock. The alloy was reasonably tough even at a hundred and seventy degrees Kelvin, so there was no risk of breaking; and Mesklinite strength was certainly equal to the task. What

the two scientists lacked, which made the bending an operation instead of an incident, was traction.

The ice under them was fairly pure water with a modest percentage of ammonia, not so far either below its melting point or from the ideal ice crystal structure to have lost its slipperiness. The small area of the Mesklinite extremities caused them to dig in in normal walking, and this, combined with their low structure and multiplicity of legs, prevented slipping in ordinary walking around the frozen-in *Kwembly*. Now, however, Borndender and his assistant were trying to apply a strong side-wise force, and their twenty pounds of weight simply did not give enough dig for their claws. The metal refused to bend, and the long bodies lashed about on the ice with Newton's Third Law in complete control of the situation. The sigh was enough to make Benj chuckle in spite of his worry, a reaction which was shared by Seumas McDevitt, who had just come down from the weather lab.

Borndender finally solved his engineering problem by going back into the *Kwembly* and bring out drilling equipment. With this he sank half a dozen foot-deep holes in the ice, and by standing lengthwise of drill-tower support rod in these he was able to provide anchorage for the Mesklinite muscles. The metal was finally changed from hairpin to caliper shape.

Fitting the ends into the appropriate holes was comparatively easy after the filing was finished. It involved a modest lifting job to get the wire up to the two-inch height of the socket holes, but this gave no problem either for strength or traction and was done in half a minute. With some hesitation, visible even to the human watchers, Borndender approached the controls of the power unit. The watchers were at least as tense; Dondragmer was not entirely sure that the operation was safe for his ship, having only the words of the human beings about this particular situation, and Benj and McDevitt had doubts about the efficacy of the jury-rigged heater.

The last were speedily settled. The safety devices built into the unit acted properly as far as the machine's own protection was concerned; they were not, however, capable of analyzing the exterior load in detail. They permitted the unit to deliver a current-not a voltage-up to a limit determined by the manual control setting. Borndender had, of course, set this at the lowest available value. The resistor lasted for several seconds, and might have held up indefinitely if the ends had not been off the ice.

For most of the length of the loop, all went well. A cloud of microscopic ice crystals began to rise the moment the power came on, as water boiled away from around the wire and froze again in the dense frigid air. It hid the sight of the wire singing into the surface ice, but no one doubted that this was happening.

The last foot or so at each end of the loop, however, was not protected by the high specific and latent heats of water. Those inches of metal showed no sign of the load they were carrying for perhaps three seconds; then they began to glow. The resistance of the wire naturally increased with its temperature, and in the effort to maintain constant current the power box applied more voltage. The additional heat developed was concentrated almost entirely in the already overheated sections. For a long moment a red, and then a white, glow illuminated the rising cloud, causing Dondragmer to retreat involuntarily to the other end of the bridge while Borndender and his companion flattened themselves against the ice.

The human watches cried out-Benj wordlessly, McDevitt protestingly, "It can't blow!" their reactions were, of course, far too late to be meaningful. By the time the picture reached the station, one end of the wire loop had melted through had the unit had shut down automatically. Borndender, rather surprised to find himself alive, supplemented the automatic control with the manual one, and without taking time to report to the captain set about figuring what had happened.

This did not take him long; he was an orderly thinker, and had absorbed a great deal more alien than had

the helmsmen who were still hoping for a rescue a few yards away. He understood the theory and construction of the power units about as a good high school student understands the theory and construction of a television set-that is, he could not have built one himself, but could make a reasonable deduction about the cause of a gross malfunction. He was more of a chemist than a physicist, as far as specific training went.

While the human beings watched in surprise, and Dondragmer in some uneasiness, the two scientist repeated the bending operation until what was left of the resistor was once again usable. With the drilling equipment they made a pit large enough to hold the power box at one end of the deep groove boiled in the ice by the first few seconds of power. They set the box in the hole, connected the ends once more, and covered everything with chips of ice removed in the digging, leaving only the controls exposed. Then Borndender switched on the power again, this time retreating much more hastily than before.

The white cloud reappeared at once, but this time grew and spread. It enveloped the near side of the *Kwembly*, including the bridge, blocking the view for Dondragmer and the communicator lens. Illuminated by the outside flood lamps, it caught the attention of the crew, now nearing the edge of the valley, and of Stakendee and his men miles to the west. This time the entire length of the wire was submerged in melted ice, which bubbled away from around it as hot vapor, condensed to a liquid a fraction of a millimeter away, evaporated again much less violently from the surface of the widening pool, and again condensed, this time to ice, in the air above. The streaming pool, some three quarters of the *Kwembly's* length and originally some six feet in width, began to sink below the surrounding ice as its contents were borne away as ice dust by the gentle wind faster than they were replenished by melting.

One side of it reached the cruiser, and Dondragmer, catching a glimpse of it through a momentary break in the swirling fog suddenly had a frightening thought. He donned his airsuit hurriedly and rushed to the inner door of the main lock. Here he hesitated; with the suit's protection he could not tell by feel whether the ship was heating dangerously, and there were not internal thermometers except in the lab. For a moment he thought of getting one; then he decided that the time needed might be a risk, and opened the up safety valves in the outer lock, which were handled by pull cords from inside reaching down through the liquid trap. He did not know whether the heat from outside would last long enough to boil ammonia in the lock itself-the *Kwembly's* hull was well insulated, and leakage would be slow-but he had no desire to have boiling ammonia confined aboard his command. It was actually an example of a little knowledge causing superfluous worry; the temperature needed to bring ammonia vapor pressure anywhere near the current ambient value would have made an explosion the least of any Mesklinite's concerns. However, no real harm was done by opening the valves, and the captain felt better as a result of the action. He returned hastily to the bridge to see what was going on.

A gentle breeze from the west was providing occasional glimpses by sweeping the ice fog aside, and he could see that the level of the molten pool was lower. Its area had increased greatly, but as the minutes passed he decided that some sort of limit had been reached in that respect. His two men were visible at times, crawling here and there trying to find a good viewpoint. They finally settled down almost under the bridge, with breeze behind them.

For some time even the liquid level seemed to reach a steady state, though none of the watchers could understand why. Later they decided that the spreading pool had melted its way into the still-liquid reservoir under the *Kwembly*, which took fully fifteen minutes to evaporate. By the end of that time, cobbles from the river bottom began to show their tops above the simmering water, and the problem of turning the power unit off before another length of wire was destroyed suddenly occurred to Dondragmer.

He knew now that there was no danger of the power unit blowing up; however, several inches of the wire had already melted away, and there was going to be trouble restoring the refrigerator to service. This situation should not be allowed to get any worse, which it would if more metal were lost. Now, as the water level reached the cobbles and the wire ceased to follow the melting ice downward, the captain suddenly wondered whether he could get out to the controls fast enough to prevent the sort of shut-off which had occurred before. He wasted no time mentally blasting the scientists for not attaching a cord to the appropriate control; he hadn't thought of it in time either.

He donned his suit again and went out through the bridge lock. Here the curve of the hull hid the pool from view, and he began to make his way down the holdfasts as rapidly as he could in the poor visibility. As he went, he hooted urgently to Borndender, "Don't let the wire melt again! Turn off the power!"

An answering, but wordless, bellow told him that he had been heard, but no other information came through the white blankness. He continued to grope his way downward, finally reaching the bottom of the hull curve. Below him, separated from his level by the thickness of the mattress and two thirds the height of the trucks, was the gently steaming surface of the water. It was not, of course, actively boiling at this pressure; but it was hot even by human standards, and the captain had no illusions about the ability of an airtight suit to protect him from it. It occurred to him, rather later, that there was an excellent chance that he had just cooked his two missing helmsmen to death, but this was a passing thought; there was work to be done.

The power box lay well aft of his present position, but the nearest surface on which he could walk had to be forward. Either way there was going to be trouble reaching the unit, now presumably well surrounded by hot water; but if jumping were going to be necessary, the hull holdfasts were about the poorest possible takeoff point. Dondragmer went forward.

This brought him into clear air almost at once, and he saw that his two men were gone. Presumably they had started around the far side of the pool in the hope of carrying out his order. The captain continued forward, and in another yard or two found it possible to descend to solid ice. He did so, and hastened on what he hoped was the trail of his men.

He had to slow down almost at once, however, as his course brought him back into the ice fog. He was too close to the edge of the pool to take chances. As he went he called repeatedly, and was reassured to hear each hoot answered by another. At least, his men had not yet fallen in.

He caught up with them almost under the cruise's stern, having walked entirely around the part of the pool not bounded by the hull. None of them had accomplished anything; the power unit was not only out of reach but out of sight. Jumping would have been utter lunacy, even if Mesklinites normally tended to think such a thing. Borndender and his assistant had not, and the idea had only occurred to Dondragmer because of his unusual experience in Mesklin's low-gravity equatorial zone long before.

But there could not be much more time. Looking over the edge of the ice, the three could catch glimpses of the rounded tops of the rocks, separated by water surfaces which narrowed as they watched. The wire must be practically out of water by now; chance alone would not have it settle between the stones to a point much lower than their average height, and the protecting water was already there. The captain had been weighing the various risks for minutes; without further hesitation, and without issuing any orders, he slipped over the edge and dropped two feet to the top of one of the boulders.

It was the energy equivalent of an eight-story fall on Earth, and even the Mesklinite was jolted. However, he retained his self-command. A single hoot told those above he had survived without serious injury, and warned them against following in case pride might have furnished an impulse which intelligence certainly

would not. The captain, with that order issued, relegated the scientist to the back of his mind and concentrated on the next step.

The nearest rock with enough exposed area to accommodate him was two feet-well over a body length-away, but was at least visible. Better still, another one only slightly off the line to it expose a square inch or so of its surface; and two seconds after analyzing this situation, Dondragmer was two feet closer to the power box and looking for another stopping point. The lone square inch of the stepping stone had been touched by perhaps a dozen feet as the red-and-black length of his body had ricocheted from it to the second rock.

The next stage was more difficult. It was harder to be sure which way to go, since the hull which had been furnished orientation was now barely visible also, there were no more large surfaces as close as the one from which he had come. He hesitated, looking and planning; but before he reached a decision the question was resolved for him. The grumbling sound which had gone on for so many minutes as water exploded into steam against the hot wire and almost instantly collapses again under Dhrawn's atmospheric pressure abruptly ceased, and Dondragmer knew that he was too late to save the metal. He relaxes immediately and waited where he was while the water cooled, the evaporation slowed, and the fog of ice crystals cleared away. He himself grew uncomfortably warm, and was more than once tempted to return the way he had come but the two-foot climb up an ice overhang with hot water at is foot, which would form part of the journey, made the temptation easy to resist. He waited.

He was still alive when the air cleared and crystals of ice began to grow around the edges of the rocks. He was some six feet from the power unit, and was able to reach it by a rather zigzag course over the cobbles once the way could be seen. He shut off the power controls, and only when that was done did he look around.

His two men had already made their way along the ice cliff to a point about the level with the original front bend of the wire; Dondragmer guessed that this must be where the metal had melted through this time.

In the other direction, under the bulking hull, was a black cavern where the *Kwembly's* lights did not reach. The captain had no real wish to enter it; it was very likely that he would find the bodies of his two helmsmen there. His hesitation was observed from above.

"What's he waiting there at the power box for?" muttered McDevitt. "Oh, I suppose the ice isn't thick enough for him yet."

"That's not all of it, I'd guess." Benj's tone made the meteorologist look sharply away from the screen.

"What's the matter?" he asked.

"You must know what's the matter. Beetch and his friend were under there. They must have been. How could they have gotten away from that hot water? I bet the captain only just thought of it-he'd never have let them use that way if he'd seen what would happen, any more than I would have."

McDevitt thought rapidly; the boy wouldn't be convinced, or even comforted, by anything but sounds reasoning, and McDevitt's soundest reasoning suggested that Benj's conclusion was probably right. However, he tried.

"It looks bad, but don't give up. It doesn't look as though this thing melted its way all the way across under the ship, but it might have; and either way there's some hope. If it did, the could have got out the other side, which we can't see; if it didn't they could have stayed right at the edge of the liquid zone,

where the ice could have saved them. Also, they may not have been under there."

"Water ice save them? I thought you said that this stuff froze because it lost its ammonia, not because the temperature went down. Water ice at its melting point-zero centigrade-would give heatstroke to a Mesklinite."

"That was my guess," admitted the have enough measurements of any sort. I admit your little friend may have been killed; but we know so little of what has happened down there that it would be silly to give up hope. Just wait-there's nothing else to do at this distance anyway. Even Dondragmer is staying put. You can trust him to check as soon as it's possible."

Benj restrained himself, and did his best to look for bright possibilities; but the eye he was supposed to be keeping on Stakendee remained fixed on the captain's image.

Several times Dondragmer could be seen to extend part of his length onto the ice, but each time he drew back again, to the boy's intense annoyance. At last, however, he seemed satisfied that the ice would hold his weight, and inch by inch extended himself entirely onto the newly frozen surface. Once off the power box he waited for a moment as though expecting something to happen; but the ice held, and he resumed his way toward the side of the *Kwembly*. The human beings watched, Benj's fists clenched tightly and even the man more tense than usual.

Of course they could hear nothing. Not even the hoot which suddenly echoed across the ice penetrated the bridge to affect their communicator. They could not even guess why Dondragmer suddenly turned back from the hull as he was about to disappear under it. They could only watch as he raced back across the ice to a point just below his two men and waved excitedly at them, apparently indifferent to whatever there was to be learned about the fate of his helmsman and Benj's friend.

XII

Dondragmer was far from indifferent, but by his standards it was normal to focus attention on a new matter likely to require action rather than clear up an old one where action was unlikely to help. He had not dropped the fate of his men from mind, but when a distant hoot bore the words "Here's the end of the stream" to him his [program changed abruptly and drastically.

He could not see where the voice was coming from, since he was two feet below the general surface, but Borndender reported glimpses of a light perhaps half a mile away. At the captain's order, the scientists climbed the hull part way to get a better view, while his assistant went in search of a rope to get the captain out of the ice pit. This took time. The sailors had, with proper professional care, returned the lines used in lowering the radiator bar to their proper places inside the cruiser; and when Skendra, Borndender's assistant, tried to get through the main lock he found it sealed by a layer of clear ice which had frozen a quarter of an inch thick on the starboard side of the hull, evidently from the vapor emitted by the hot pool. Fortunately most of the holdfasts were projecting far enough through this to be usable, so he was able to climb on up to the bridge lock.

Meanwhile, Borndender called down that there were two lights approaching across the riverbed. At the captain's order, he howled questions across the thousand-yard gap, and the two listened carefully for answers-even Mesklinite voices had trouble carrying distinct words for such a distance and through two layer of airtight fabric. By the time Dondragmer was out of the hole, they knew that the approaching men were part of Stakendee's command which had been ordered to follow down the stream, and that they had reached its end less than a mile from the ship; but until the group actually reached them, no further details could be made out.

Even then, they could no entirely understand it; the description did not match anything familiar to them.

"The river stayed about the same size all the way down," the sailors reported. "It wasn't being fed from anywhere, And it didn't seem to be evaporating. It wound among the stones a lot, when it got down to where they were. Then we began to run into the funniest obstructions. There would be a sort of dam of ice, with the stream running around one end or the other of it. Half as cable or so farther on there' be another dam, with just the same thing happening. It was as though some of it froze when it met the ice among the stones, but only the beginning part. The water that followed stayed liquid and went on around the dam until *it* found some ice. The dams would build up to maybe half a body length high before the following water would find its way around. We reached the last one, where it was still happening, just a few minutes ago. We'd seen the bright cloud rising over the ship before that, and wondered whether we ought to come back in case something was wrong; but we decided to carry out orders at least until the river started l to lead us away from the *Kwembly* again."

"Good," said the captain. "You're sure the stream wasn't getting any bigger?"

"So far as we could judge, no."

"All right. Maybe we have more time than I thought, and it isn't a forerunner of the same thing that brought us here. I wish I understood why the liquid was freezing in that funny way, though."

"We'd better check with the human beings," suggested Borndender, who had no ideas on the matter either, but preferred not to put the fact too bluntly.

"Right. And they'll want measurements and analyses. I suppose you didn't bring a sample of that river," he said, rather than asked, the newcomers.

"No, sire. We had nothing to carry it in."

"All right. Born, get containers and bring some back; analyze it as well as quickly as you can. One of these men will guide you. I'll go back to the bridge and bring the humans up to date. The rest of you get tools and start chipping ice so we can use the main lock."

Dondragmer closed the conversation by starting to climb the ice crusted hull. He waved toward the bridge as he went, assuming that he was being watched and perhaps even recognized.

Benj and McDevitt had managed to keep track of him, though neither found it easy to tell Mesklinites apart, and were waiting eagerly when he reached the bridge to hear what he had to say. Benj in particular had grown even more tense since the search under the cruiser had been interrupted; perhaps the helmsmen had not been there after all-perhaps they had been among the newcomers who had arrived to interrupt the search-perhaps-perhaps...

McDevitt was a patient man by nature and liked the youngster, but even he was getting irritated by the time Dondragmer's voice reached the station.

The report fascinated the meteorologist, though it was no consolation to his young companion. Benj wanted to interrupt with a question about Beetchermarlf, but knew it would be futile; and when the captain's account ended, McDevitt immediately began to talk.

"This is not much more than a guess, Captain," he began, "Though perhaps you scientists will be able to stiffen it when he analyzes those samples. It seems possible that the pool around would was originally an ammonia-water solution-we had evidence of that before-which froze, not because the temperature went

down, but because it lost much of its ammonia and its freezing point went up. The fog around you just before the whole trouble started, back on the snowfield, was ammonia, your scientists reported; I'm guessing that it came from the colder areas far to the west. Its droplets began to react with the water ice, and melted it partly by forming an eutectic and partly by releasing heat-you were afraid of something of that sort even before it happened, as I remember. That started your first flood. When the ammonia cloud passed on into Low Alpha the solution around you began to lose ammonia by evaporation, and finally the mixture which was left below its freezing point. I'm guessing that the fog encountered by Stakendee is more ammonia, and provided the material for the rivulet he found. As it meets the water ice near you they dissolve mutually until the mixture is too dilute in ammonia to be liquid any more-this forms the dam your men described, and the liquid ammonia still coming has to find a way around. I would suggest that if you can find a way to divert that stream over to your ship, and if there proves to be enough of it, your melting-out problem would be solved." Benj, listening in spite of his mood, thought of wax flowing from a guttering candle and freezing first on one front and then another. He wondered whether the computers would handle the two situations alike, if ammonia and heat were handled the same way in the two problems.

"You mean I shouldn't worry about a possible flood?" Dondragmer's voice finally returned.

"I'm guessing not," replied McDevitt. "If I'm right about this picture, and we've been talking it over a lot up here, the fog that Stakendee met should have passed over the snow plain you from-or what's left of it-and if it were going to cause another flood that should have reached you by now. I suspect the snow, which was high enough to spill into the pass you were washed through, was all used up on the first flood, and that's why you were finally left stranded where you are. If the new fog hasn't reached you yet by the way, I think I know the reason.

The place where Stakendee met it is a few feet higher than you are, and air flowing from the west is coming downhill. With Dhrawn's gravity and that air composition there'd be a terrific foehn effect-adiabatic- heating as the pressure rises-and the stuff is probably evaporating just as it gets to the place where Stakendee met it."

Dondragmer took a while to digest this. For a few seconds after the normal delay time, McDevitt wondered whether he had made himself clear; then another question came through.

"But if the ammonia fog were simply evaporating, the gas would still be there, and must be in the air around us now. Why isn't it melting the ice just as effectively as though it were in liquid drops? Is some physical law operating which I missed in the College?"

"I'm not sure where state and concentration would make all that much difference, just from memory," admitted the meteorologist. "When Borndender gets the new data up here I'll feed the whole works into the machine to see whether this guess of ours is ignoring too many facts. On the basis of what I have now, I still think it's a reasonable one, but I admit it has its fuzzy aspects. There are just too many variables; with only water they are practically infinite, if you'll forgive a loose use of the word, and with water and ammonia together the number is squared, if not worse.

"To shift from abstract to concrete, I can see Stakendee's screen and he's still going along beside that streamlet in the fog; he hasn't reached the source, but I haven't seen any other watercourses feeding in from either side. It's only a couple of your body-lengths wide, and has stayed about the same all along."

"That's a relief," came the eventual response. I suppose if a real flood were coming that river would be some indication. Very well, I'll report again as soon as Borndender has his information. Please keep watching Stakendee. I'm going outside again to check under the hull; I was interrupted before." The meteorologist had wanted to say more, but was silenced by the realization that Dondragmer would not be

there to hear his words by the time they arrived. He may also have been feeling some sympathy for Benj.

They watched eagerly, the man almost as concerned as the boy, for the red-and-blank inchworm to appear on the side of the hull within range of the pickup. It was not visible all the way to the ground, since Dondragmer had to go forward directly under the bride and out of the field of view; but they saw him again near the point where the rope which had been used to get him out a few minutes earlier was still snubbed around one of Borndender's bending posts.

They watched him swarm down the line into the pit. A Mesklinite hanging on a rope about the thickness of a six-pound nylon fishline, and free to swing pendulum-style in forty Earth gravities, is quite a sight even when the distance he has to climb is not much greater than his own body length. Even Benj stopped thinking about Beetchermarlf for a moment.

The captain was no longer worried about the ice; it was presumably frozen all the way to the bottom by now, and he went straight toward the cruiser without bothering to stay on the stones. He slowed a trifle as he drew near, eyeing the cavity in front of him thoughtfully.

Practically, the *Kwembly* was still frozen in, of course. The melted area had reached her trucks for a distance of some sixty feet fore and aft, but the ice was still above the mattress beyond those limits and on the port side. Even within that range, the lower part of the treads had still been an inch or two under water when the heater gave out. Beetchermarlf's control cables had been largely freed, but of those helmsman himself there was no sigh whatever. Dondragmer had no hope of finding the two alive under the *Kwembly*; they would obviously have emerged long ago had this been the case. The captain would not have offered large odds on the chance of finding bodies, either. Like McDevitt, he knew that there was an unevaluable probability that the crewmen had not been under the hull at all when the freeze-up occurred. There had, after all, been two other unexplained disappearances; Dondragmer's educated guess at the whereabouts of Kervenser and Reffel was far from a certainty even in his own mind.

It was dark underneath, out of range of the floods. Dondragmer could still see a response to abrupt changes of illumination was a normal adaptation to Mesklin's eighteen-minute rotation period-but some details escaped him. He saw the condition of the two trucks whose treads had been ruined by the helmsmen's escape efforts, and he saw the piles of stones they had made in the attempt to confine the hot water in a small area; but he missed the slash in the mattress where the two had taken final refuge.

What he saw made it obvious, however, that at least one of the two missing men had been there for a while. Since the volume which had evidently not frozen at all was small, the most likely guess seemed to be that they had been caught in the encroaching ice after doing the work which could be seen-though it was certainly hard to see just how this could have happened. The captain made a rapid check the full length of the ice-walled cavern, examining every exposed truck for and aft, top and sides. It never occurred to him to look higher. He had, after all, taken part in the building of the huge vehicle; he knew there was nowhere higher to go.

He emerged at last into the light and the view field of the communicator. His appearance alone was something of a relief to Benj; the boy had concluded, just as the captain had, that the helmsmen could not be under the hull alive, and he had rather expected to see Dondragmer pulling bodies after him. The relief was only relative, of course; the burning question remained-where was Beetchermarlf?

The captain was climbing out of the put and leaving the field of view. Maybe he was coming back to the bridge to make a detailed report. Benj, now showing clearly the symptoms of sleeplessness, waited silently with his fists clenched.

But Dondragmer's voice did not come. The captain had planned to tell the human observers what he had found, indeed; but on the way up the side of the hull, visible to them but unrecognized, he paused to talk to one of the men who was chipping ice from the lock exit.

"I only got what the human Hoffman told me about what you found when your part first reached that stream," he said. "Are there any more details I should know? I have the picture that you had just met someone at the point where the ground was almost up into the fog, but I never heard from Hoffman whether it was Reffel or Kervenser. Who was it? And are the helicopters all right? There was an interruption just then—someone up above apparently caught sight of Kabremm back at the *Esket*, and I cut in myself because the stream you had found worried me. That's why I split your part. Who was it you found?"

"It was Kabremm."

Dondragmer almost lost his grip on the holdfasts.

"Kabremm? Destigmat's first officer? Her? And a human being recognized him—it was *your* screen he was seen on?"

"It sounded that way, sir. He didn't see our communicator until it was too late, and none of us thought for an instant that there was a chance of a human being telling one of us from another—at least, not between the time we recognized him ourselves and the time it was too late."

"but what is he doing here? This planet has three times the area of Mesklin; there are plenty of other places to be. I knew the commander was going to hit shoals sooner or later playing this *Esket* trick on the human beings, but I certainly never thought he'd ground on such silly bad luck as this."

"It's not entirely chance, sir. Kabremm didn't have time to tell us much, we took advantage of your order about exploring the stream to break up and get him out of sight of the communicator—but I understand this river has been giving trouble most of the night. There's a buildup of ice five million or so cables downstream, not very far from the *Esket*, and a sort of ice river is flowing slowly into the hot lands. The *Esket* and the mines and the farms are right in its way."

"Farms?"

"That's what Destigmat calls them. Practically a Settlement with hydroponic tanks—a sort of oversized life-support right that doesn't have to balance as closely as the cruiser ones do. Anyway, Destigmat sent out the *Gwelf* under Kabremm to explore upstream in the hope of finding out how bad the ice river was likely to get. They had grounded where we met them because of the fog—they could have flown over it easily enough, but they couldn't have seen the riverbed through it."

"Then they must have arrived since the flood that brought us here, and if they were examining the riverbed they flew right over us. How could they possibly have missed out light?"

"I don't know, sir. If Kabremm told Stakendee, I didn't hear him."

Dondragmer gave the rippling equivalent of a shrug. "Probably he did, and made it a point to stay out of reach of our human eyes. I suppose Kervenser and Reffel ran into the *Gwelf*, and Reffel used his vision shutter to keep the dirigible from human sight; but I still don't see why Kervenser, at least, didn't come back to report."

"I'm afraid I don't know about any of that, either," replied the sailor.

"Then the river we've washed into must bend north, if it leads to the *Esket* area." The other judged correctly that Dondragmer was merely thinking out loud, and made no comment. The captain pondered silently for another minute or two. "The big question is whether the commander heard it, too, when the human-I suppose it was Mrs. Hoffman, she is about the only one that familiar with us-called out Kabremm's name. If he did, he probably thought that someone had been careless back at the *Esket*, as I did. You heard her on your set and I heard her on mine, but that's reasonable; they're both *Kwembly* communicators, and probably all in one place up at the station. We don't know, though, about their links with the Settlement. I've heard that all their communication equipment is in one room, but it must be a big room and the different sets may not be very close together. It's equally possible that Barl did, or did not, hear her.

"What it all shapes up to is that one human being has recognized an *Esket* crew member, not only alive long after they were all supposed to be dead, but five or six million cables from the place where they presumably died. We don't know how certain this human was of the identification; certain enough to call Kabremm's name on impulse, maybe not certain enough to report to other humans without further checking. After all, such a report could sound pretty silly without strong evidence. We don't know whether Barlennan knows of this slip; and worst of all, we can't tell what he's likely to answer when questions about it come his way. His safest and most probably line would be complete ignorance seasoned with shocked amazement, and I suppose he'll realize that, but I certainly wish I could talk to him without having human beings along the corridor."

"Wouldn't your best line be complete ignorance, too?" queried the sailor. Like all the Mesklinites on Dhrawn, he was fully aware of the trick being played on the human beings to get the *Esket* off their books. He also knew as much of the reason for it as Barlennan had made public. Very few-Dondragmer not among them-had been let all the way into the commander's thinking.

"It would be," the captain answered, "but I can't get away with it. I've already told the humans about your return. The most hopeful notion I have at the moment centers around the possibility of mistaken identity; how sure is Mrs. Hoffman, or whoever it was-the more I think of it, the more certain I am it was her voice; I wish I'd been paying more attention-that it was really Kabremm she saw? How does she tell us apart anyway? Coloration pattern? Walking style? Can she recognize any of us at a glance, or just a few whom she knows especially well, or does one have to have a missing leg, or no red on his head?"

"I'd use that line, except that I just don't know what Barlennan is going to do-or if he's in a position to have to do anything. If he didn't hear that call, and the human is really suspicious, it wouldn't take many trick questions to catch him out. Even if he did, and is warned, he's in trouble, because then he'll be worrying about what I'm likely to say. That's the sort of thing I've been worried about ever since the beginning; with all long distance communication having to go through the humans, coordination of this trick was bound to get difficult. If we could have avoided slips until Destigmat had made enough wire to reach from the mines to the Settlement, and gotten it strung, the chances of getting away with the while thing would have gone up a lot."

"all that ever worried me," replied the sailor as he resumed his chipping at the ice, "was what would happen when they did learn about what we were doing. I don't suppose they'd really abandon us here-human beings don't seem to be quite that firm, even on business deals-but they *could* as long as we don't have spaceships of our own."

"That was the basic argument the commander gave, as you know," returned Dondragmer. "They seem to be dependable beings, and personally I'd trust them as far as I would anyone, but they are different in some ways and one is never quite sure what they will consider an adequate motive, or excuse, for some action. That's why the commander wanted to get us self-supporting on this world without their knowing

about it. I'm glad Destigmat has done so well with his 'farm.' The mines were a long step, and the dirigibles were a triumph; but we're a long, long way from being able either to make, or to do without, the human-made energy boxes; and I sometimes wonders if the commander realizes just how beyond us those are.

"But that's not the immediate problem. I'm going to have to talk to the station again. I suppose my best policy is not to mention Kabremm unless they ask me, and if they do, try to convince them it was mistaken identity."

"Not mentioning it might make them suspicious," pointed out the sailor.

"It would be consistent with the mistaken-identify line, though. Thanks for the point; I hadn't considered it. Carry on, and give me a wave on the bridge when the lock is clear."

The sailor gestured agreement, and Dondragmer at last got to the bridge.

There was plenty to say to the human beings without mentioning Kabremm, and the captain began saying it as soon as he had doffed his airsuit.

"At least one of the helmsmen was under the hull for a while, and probably both of them were, but I couldn't find any trace of either one just now except work they had done trying to get out—at least, I can't see any other reason for it; it certainly wasn't an assigned job. They wrecked, or nearly wrecked, two of the trucks in the process. Much of the space under there is still frozen up, and I'm afraid they're probably in the ice. We'll search more carefully, with lights, when the crew comes back and I can spare the men. The water, or whatever it was, that was boiled away by our heater coated an ice layer on the hull which has sealed the main lock; we must get that back into service as quickly as possible. There is much equipment which can't now be moved out if we have to abandon the *Kwembly*, and much which can't be moved back inside if we don't, because it won't go through any other lock.

"Also, the use of that heater caused the melting of about a body length of the radiator wire, and I don't see how we are going to restore the refrigerator to service if we do get the *Kwembly* free. This may not be of immediate importance, but, if we do get back into service, we'd have to think twice about going very far into Low Alpha without refrigeration. One of the few things you people seem really sure of is that the low-pressure area is caused by high temperature, presumably from internal heat, and I know you set a very high priority on finding out about it. There is virtually no metal in the ship, and one of the few things I understand about that refrigerator is that its outside radiator must be an electrical conductor. Right?"

The captain waited for his reply with some interest. He hoped that the technical problem would divert the human interest from the whole question of Kabremm and the *Esket*; but he knew that this would not have worked if he himself were on the other end of the conversation. Of course, Benj Hoffman was young—but he was probably not the only person there.

At least it was Benj who answered; but he didn't seem much interested in technology.

"if you think they're in the ice, shouldn't people get down there right away and look? They might still be alive in those suits, mightn't they? You said a while ago that no one had ever found out, but that at least seems to me that the longer you put off finding them, the less chance they have of living. Isn't that the most important problem right now?"

Easy's voice followed on, before Dondragmer could frame an answer; she seemed to be talking to her son as well as to the captain.

"It's not quite the most important. The *Kwembly* is synonymous with the lives of its entire crew, son. The captain is not being callous about his men. I know you feel about your friend, and as a feeling it's perfectly proper; but a person with responsibility has to think as well as feel."

"I though you were on my side."

"I feel with you very strongly, but that doesn't keep me from knowing the captain is right."

"I suppose Barlennan would act the same way. Have you asked him what Dondragmer should do?"

"I haven't asked him, but he knows the situation-if you don't think so, there's the microphone; give your side of it to him. Personally I don't think he'd dream of overriding Dondragmer or any other cruiser captain in such a matter, when he himself isn't on the scene." There was a pause while Benj hunted for words to refute this claim; he was still young enough to think that there was something fundamentally inhuman about thinking more than one step ahead at a time. After ten seconds or so of silence, Dondragmer assumed that the station transmission was over and a reply was in order. Mrs. Hoffman-I believe I recognized her voice-is quite right, Benj. I have not forgotten Beetchermarlf, any more than you have forgotten Takoorch, although it is obvious even to me that you are thinking less of him. It is simply that I have more lives to consider than theirs. I'm afraid I'll have to leave any more discussion of it to her, right now. Would you please get some of your engineers thinking about the problem of my refrigerator? And you probably will see Borndender climbing the hull with his sample; the report about the stream should come up in a few minutes. If Mr. McDevitt is still there, please have him stand by; if he was left for any reason, will you please have him come back?"

The watchers had seen a climbing Mesklinite as the captain had said, though not even Easy had recognized Borndender. Before Benj could say anything, McDevitt answered, "I'm still here, Captain. We'll wait, and as soon as the analysis is here I'll take it to the computer. If Borndender has any temperature and pressure readings to send along with his chemical information, they will all be useful."

The boy was still unhappy, but even he could see that this was not the time for further interruption. Also, his father had just entered the communication room, accompanied by Aucoin and Mersereau. Benj tactfully slid out of the seat in front of the bridge screen to make room for the planner, though he was too angry and upset to hope that his badly-chosen words of the last few minutes would go unmentioned. He was not even relieved when Easy, in bringing the newcomers up to date, left the question of the missing helmsmen unmentioned.

Her account was interrupted by Dondragmer's voice.

"Borndender says that he has checked the density and boiling temperature of the liquid in the stream, and that it about three eights ammonia and five eights water. He also says that the outside temperature is 71, the pressure 26.6 standard atmospheres-our standard, of course-and the wind a little north of west, 21 degrees to be more precise, at 120 cables per hour. A very light breeze. Will that suffice for your computer?"

"It will all help. I'm on my way," replied McDevitt as he slid from his seat and headed toward the door. As he reached the exit he looked back thoughtfully, paused and called, "Benj, I hate to pull you from the screens right now, but I think you'd better come with me for a while. You should check me on the input, and you can bring the preliminary run back to report to Dondragmer while I do the recheck."

Easy kept her approval to herself as Benj silently followed his nominal chief. The approval was divided between McDevitt, for veering the youngster's attention in a safe direction, and her son for a better

example of self-control than she had really expected. She had known, of course, that he would not whine or throw a tantrum, but she would not have been surprised if he had come up with a reasonable excuse for staying at the screens.

Aucoin paid no attention to the exchange; he was still trying to clarify his picture of the current state of affairs.

"I take it that none of the missing personnel has turned up," he said. "All right, I've been thinking it over. I assume that Barlennan had been up to date, as we agreed a few hours ago. Is there anything else which has happened, and which he has been told about but I haven't?" Easy looked up quickly, trying to catch evidence of the resentment on the administrator's face, but he seemed unaware that his words could possibly have been interpreted as criticism. She thought quickly before answering.

"Yes. Roughly three hours ago, Cavanaugh reported action on one of the *Esket* screens. He saw a couple of objects sliding or rolling across the floor of the laboratory from one side of the screen to the other. I started watching but nothing has happened there since.

"Then an hour or so later, the search party Don had out for the missing helicopters met a Mesklinite which we, of course, took at first to be one of the pilots; but when he got close to the transmitter I recognized Kabremm, the first officer of the *Esket*."

"Six thousand miles from where the *Esket's* crew is supposed to have died?"

"Yes."

"What was his comment?"

"Nothing specific. He acknowledged the whole report, but didn't offer any theories."

"He didn't even ask you how sure you were of the identification? Or on what you based it?"

"No."

"Well, if you don't mind I'd like to. Just how did you know Kabremm, and how certain are you that you were right?"

"I knew him, before the loss of the *Esket*, well enough to make it difficult to say what I went by—he's simply distinctive, in color pattern and stance and walk, just as you and Ib and Boyd are."

"The light was good enough for color pattern? It's night down there."

There were lights near the set—though most of them were in front of it, in the field of view, and Kabremm was most backlighted."

"Do you know the two missing men well enough to be certain it was neither of them—do you know neither one looks like Kabremm?"

Easy flushed. "It certainly wasn't Kervenser, Don's first officer. I'm afraid I don't know Reffel well enough to be sure, that possibility hadn't occurred to me. I just saw the man, and called out his name pretty much by reflex. After that I couldn't do much but make a report; the Settlement microphone was alive at the time, and Barlennan, or whoever was on duty, could hardly have helped hearing me."

"Then there is a reasonable chance that Barlennan's lack of comment was a polite attempt to avoid embarrassing you—to gloss over what may have seemed to him a silly mistake?"

"I suppose it's possible." Easy could not make herself sound anything but doubtful, but even she knew that her opinion was unlikely to be objective.

"Then I think," Aucoin said slowly and thoughtfully, "that I'd better talk to Barlennan myself. You say nothing more has happened at the *Esket* since Cavanaugh saw those objects rolling?"

"I haven't seen anything. The bridge set, of course, is looking out into darkness, but the other three are lighted perfectly well and have shown no change except that one."

"All right. Barlennan knows our language well enough, in my experience, so I won't need you to translate."

"Oh, no, he'll understand you. You mean you'd rather I left?"

"No, no, certainly not. In fact, it would be better if you listened and warned me if you thought there might be any misunderstanding developing." Aucoin reached for the Settlement microphone switch, but glanced once more at Easy before closing it. "You don't mind, do you, if I make sure of Barlennan's opinion about your identification of Kabremm? I think our main problem is what to do about the *Kwembly*, but I'd like to settle that point, too. After you brought the matter up with him, I'd hate Barlennan to get the idea that we were trying to... well, censor anything, to phrase it the way Ib did at the meeting." He turned away and sent his call toward Dhrawn.

Barlennan was in the communicator chamber at the Settlement, so no time was lost reaching him. Aucoin identified himself, once he was sure the commander was at the other end, and began his speech.

Easy, Ib, and Boyd found it annoyingly repetitious, but they had to admire the skill with which the planner emphasized his own ideas. Essentially, he was trying to forestall any suggestion that another vehicle be sent to the rescue of the *Kwembly*, without himself suggesting such a thing. It was a very difficult piece of language manipulation, and even knowing that the matter had been uppermost in Aucoin's mind ever since the conference, so that it was anything but an impromptu speech, did not detract from its merits as a work of art-as Ib remarked later. He did mention Easy's identification of Kabremm to the commander, but so fleetingly that she almost failed to recognize the item. He didn't actually say that she must have been mistaken, but he was obviously attaching no importance to the incident.

It was a pity, as Easy remarked later, that such polished eloquence was so completely wasted. Of course Aucoin had no more way of knowing than did the other human beings that the identification of Kabremm was Barlennan's main current worry, and that for two hours he had been concerned with nothing else. Faced with the imminent collapse of his complex scheme, as he suddenly realized with embarrassment, having no ready alternative, he had employed those hours in furious and cogent thought. By the time Aucoin had called, Barlennan had the first step of another plan, and he was waiting so tensely for a chance to put it into operation that he paid little attention to the planner's beautifully selected words. When a pause came in their deliver, Barlennan had his own speech ready, though it had remarkably little to do with what had just been said.

The pause had not actually been meant as space for an answer; Aucoin had taken a moment to review mentally what he had covered and what should come next. Mersereau, however, caught him as he was about to resume talking.

"That break was long enough to let Barlennan assume you had finished and wanted an answer," He said. "Better wait. He'll probably have started talking before whatever you were just going to say is down there." The administrator obediently waited; a convention was, after all, a convention. He was prepared to be sarcastic if Mersereau were wrong, but the Mesklinite commander's voice came though on the

scheduled second-closer to it than they would have been willing to be, Ib and Easy thought later.

"I've been thinking deeply ever since Mrs. Hoffman told me about Kabremm," he said, "an I've been able to come up with only one theory. As you know, we've always had to carry in mind the possibility that there was an intelligent species here on Dhrawn. Your scientists were certain there was highly organized life even before the landing, because of the oxygen-rich air, they said. I know we haven't run into anything but simple plants and practically microscopic animals, but the *Esket* had ventured farther into Low Alpha than any of the other cruisers, and conditions are different there; certainly the temperature is higher, and we don't know how that may change other factors.

"Until now, the chance that the *Esket* had met intelligent opposition was only one possibility, with no more to support it than any other idea we could dream up. However, as your own people have pointed out repeatedly, none of her crew could have lived this long without the cruiser's support system or something like it; and they certainly couldn't have traveled from where the *Esket* still is-as far as we can tell-to Dondragmer's neighborhood. It seems to me that Kabremm's presence there is convincing evidence that Destigmat's crew has encountered and been captured by natives of Dhrawn. I don't know hwy Kabremm was free enough to meet that search part; may he escaped, but it's hard to see how he would have dared to try under the circumstances. More likely they sent him deliberately to make contact. I wish very much that you'd pass this idea long to Dondragmer for his opinion, and have him find out what he can from Kabremm-if *he* is still available. You haven't told me wheter he was still with the search party or not. Will you do that?"

Several pieces fell into place in Ib Hoffman's mental jigsaw puzzle. His silent applause went unnoticed, even by Easy.

To Be Concluded