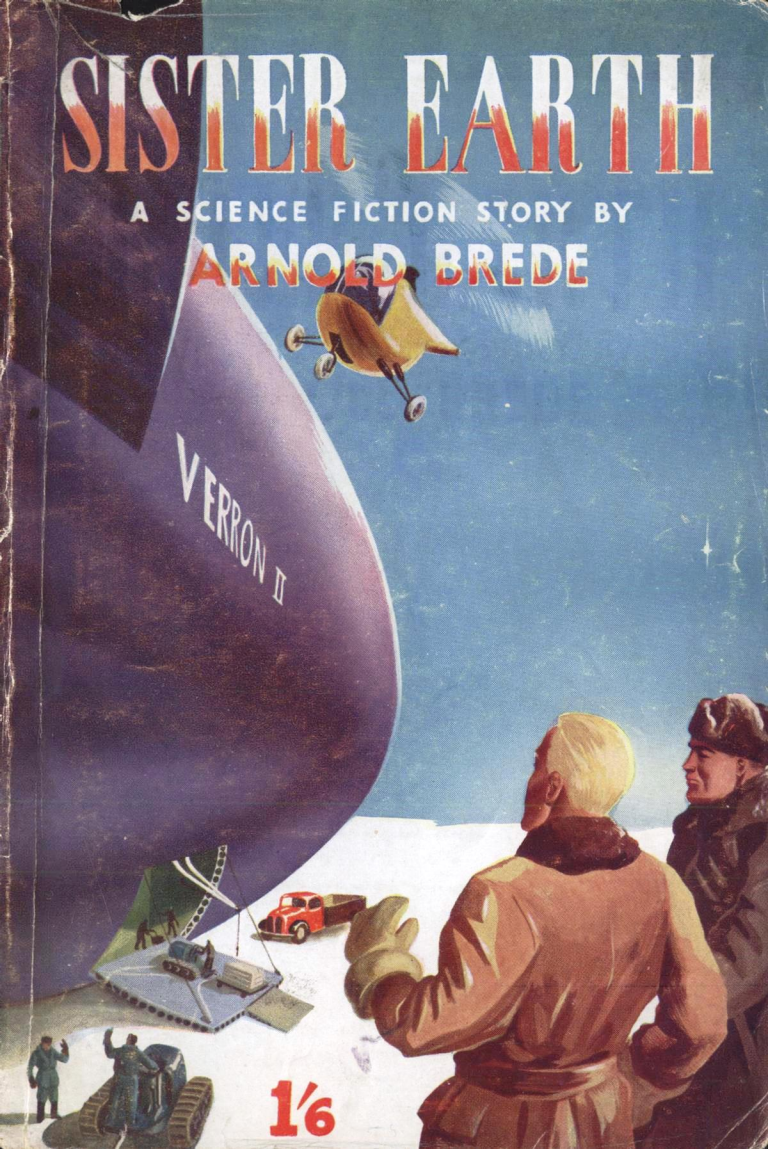


SISTER EARTH

A SCIENCE FICTION STORY BY

ARNOLD BREDE



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CHAPTER ONE

The babble of talk at the lunch table subsided as the chairman rose and tapped a glass with his spoon. There was an air of expectancy in the room, for all present knew they were about to hear something that had never been heard before. The chairman, Lord Edel, looked keenly at the faces before him. He was a tall, handsome man of fifty, with firm features, greying hair and an eye that commanded respect in any company. He was reputed to be well on the inside of the country's affairs, whatever government was in power at the moment. And his presence as chairman of the Universal Exploration Club was, in itself, a guarantee that the affairs of the Club were of some importance to the world. He waited long enough for the silence to reach a point of near-tension, and then spoke.

"Gentlemen." His voice was quiet but very clear. "We are here to-day to welcome home, and give honour to the captain and crew of a ship that has made a voyage more daring, more hazardous, and more important in the possibilities it opens up, than any before made in the history of the world."

There was a murmur of agreement and appreciation round the table while the men of the crew referred to looked coyly at their cigarette ends. The chairman continued.

"You are, I think, all somewhat surprised at the way this is being done—by a small lunch gathering, instead of the grand public celebration that the occasion undoubtedly deserves. But there is a reason for this, a very cogent reason. The expedition led by Captain Murray, here on my right, was brilliantly successful. It not only achieved all you asked of it but more. It achieved the real object of the expedition, about which you knew nothing."

There was a sudden buzz of excited voices, dying quickly as Lord Edel raised his hand for silence.

"The real object of the flight," he continued, "was to seek and find a new world. This — has — been — done. A new world has been found."

The other sixteen men around the table stared at each other almost as though for support as the full meaning of the words sank into their brains. The faces of the crew themselves showed blank bewilderment as they looked, first at each other and then at their captain, seated at the head of the table. He smiled enigmatically and waited for the chairman to recommence speaking.

"Therefore," Lord Edel proceeded quietly, "instead of calling now upon Captain Murray to tell you something about the flight he has just made, I propose to spend a few minutes introducing to you a man whom most of you have never met, or perhaps ever heard of, but who is, nevertheless, the starting point of our story. Seated on my left here is Professor Dziewinski, the leading astronomer of our day, and the man who had discovered the new planet. A worthy follower of his great countryman Copernicus, the founder of modern astronomy and discoverer of the solar system as such, the Professor has persisted for years in a belief that everyone else had scouted as impossible, the existence of a twin world in the orbit of the Earth. And now at last, with the help

of Captain Murray and Professor Verron, who designed the ship that flies through space, this belief has been proven correct, and the new world has been seen."

All eyes were fixed on the dark, thin-faced man who sat beside the chairman, drawing patterns on the tablecloth with the handle of his spoon. Lord Edel consulted his notes and then, with sudden decision, put them down.

"I had in mind to go into some detail about this remarkable discovery, but I will not now." He spoke more briskly. "We can deal with details later. For the moment it is enough for us to grasp that the new planet, a sister to the Earth, lies exactly opposite us behind the Sun, flying on almost the same orbit as ourselves and having the same, or very similar chemical characteristics and climatic conditions. Professor Dziewinski will himself answer your questions in a few minutes.

"All I want to say now is that I, as chairman of the organisation which promoted the recent flight, knew of the Professor's theory and, realising the immense importance of this discovery now that space travel is a practical proposition"—he paused dramatically—"gave the instruction to Captain Murray to make the observation of the new planet his main task. He has been completely successful in his survey and will tell you himself what he saw. Please, gentlemen, restrain your questions till you have heard him out. Captain Murray."

There was no applause when the chairman sat down and only a feeble and belated handclap when the well-known explorer rose. The audience were too stunned to be polite. They leaned forward in their seats, drinks and smokes clean forgotten in the excitement. Captain Murray glanced round the table with a slight smile on his face. Although nearly as tall as Lord Edel, his breadth of shoulder and slightly stooping posture made him look

shorter. The two were a startling contrast in types.

People being nice about Murray described him as "rugged" but his more candid friends called him just plain ugly. His face looked like something crudely sculpted out of a piece of brown stone, his skin was not so much lined, as cracked by exposure to alternate tropic and arctic sun, his eyebrows stood out over his broken nose like a pair of thatched sun-blinds and a scar across his forehead added a theatrical air of make-up to his wilfully shaggy appearance. But when he smiled there was a real warmth in it. One felt of him as of a tame bear, a bit dangerous perhaps but friendly nevertheless. And that was a fair summing up. A man of immense personal courage, his defiance of danger frequently extended to his subordinates, but men who served him loved him and those who followed him were well led. He started speaking in the deep, crisp voice of a man to whom words are symbols rather than familiar tools.

"Credit for the trip," he said curtly, "goes to Professor Verron for designing a ship to do the job, and doing it so well that not a single modification is called for after this test. Professor Dziewinski gave us astral charts, correct in every detail, and instructions as to what to expect and look out for. My crew flew well, carried out all orders correctly and I had no trouble at all.

"We made a rocket-assisted take-off from our established launching site in Greenland, dropped out our rocket drive gear at a height of two hundred miles and an air-speed of twelve-hundred miles an hour. We continued climbing on our engines at the same speed for thirty hours at which point we became gravity free, so we set course and cut the motors. We now had a space speed of sixty-eight thousand, seven hundred miles an hour, our own twelve hundred plus the orbit speed of the Earth itself. Our course was set to cut across one end of the ellipse

of the orbit of the Earth and then fly in that orbit whilst making our observations. The ship handled perfectly and we found no speed loss on changing course, which had been our only fear. We reached our planned position in the orbit after two hundred and twenty hours flying."

Murray droned on with his cool, factual report of the flight while his hearers sat spell-bound. He told of how he had watched and photographed two complete days of the new planet and mapped a hitherto unknown part of the heavens. How the various tests had reacted to show that the face of the new planet was much the same as that of our own Earth. Then, grimly, he spoke of the photographic duplication of all records and their arrangement in automatic parachute containers so that, if the landing on Earth was a smash, the records might survive. Amid tense silence he told of the return journey.

"We turned our ship and picked up the orbit again, heading back to the Earth which was, of course, now approaching us. Our combined space speeds totalled one hundred and thirty-six thousand, two hundred miles an hour, which brought us into the gravity sphere in fourteen hours flying. We circled to pick up atmosphere at twelve hundred and landed without incidents. In view of the smoothness and trouble-free nature of the return trip and landing, I did not release the duplicate records, as this would have meant the risk of their falling into other hands. No one, apart from ourselves, knows the results of the flight. That is all, gentlemen."

As Captain Murray sat down something like a sigh went up from the men round the table. The very matter-of-factness of the account had added to the tension, since each listener filled in for himself the drama that Murray passed by in his terrific story. Again there was no applause. The occasion was too big for such formality.

Lord Edel waited while nervous fingers fumbled for cigarette cases and wineglasses, then he rose again.

"And now, gentlemen, I will ask Professor Dziewinski to tell you what is known about the new planet itself. He will not give too much technical detail, but you will require basic information in order that we may discuss the whole situation effectively later."

The Professor rose, glanced once quickly round the expectant faces before him, then stared back at the tablecloth. He spoke quickly in a hard metallic voice.

"The idea of this other planet is not new," he began, in the manner of a lecturer in class. "That is to say, certain phenomena have been noted by observers of the Sun, which were only explicable by the concept of some other body of considerable density being in the line of observation. We know that because of the brilliance of the Sun's light, many astral bodies beyond it have never been seen from the Earth, although the existence of such bodies is not disputed.

"The reason why Dziewinski's planet"—he paused to allow his claim to the name to sink in—"was not suspected for so long, was that the coincidence of another planet having the same orbit and therefore the same space speed as this Earth was considered too great. In fact the orbit varies very slightly, point-two-eight degrees to be precise, and my observations and studies of the observations of other astronomers over the past few thousand years, led me to the belief that this other body was moving slightly relative to the Sun-Earth plane. In fact in about one and a half million years from now the planet will be clearly visible alongside the Sun at time of solar eclipse."

A ripple of laughter ran round the table at the suggestion that the Professor's claims would be vindicated in one and a half million years. Dziewinski looked puzzled

and a little hurt. He could not see the joke at all. His hearers straightened their faces and the Professor continued his lecture.

"From purely mathematical calculations it seemed quite probable that the new planet, simply because it had taken up the same orbit as the Earth at the same time in astral history, would be made of the same materials and be of roughly the same size and weight as the Earth itself. This means, of course, that it may be inhabited or is at least inhabitable. All this, however, was mere conjecture unless and until some means of observation could be established without the Sun getting in the way. I discussed this matter with Professor Verron three years ago and he proposed the building of an observation ship stationed in sub-planetary relationship to the Moon, but this was no use as being much too near the Earth to bypass the Sun's light.

"Professor Verron talked the matter over with Lord Edel who asked, if it were possible to build a ship to sail round the Moon, why could not the same ship go anywhere else in space? There were difficulties, of course, but they have been surmounted and the voyage you have just had described to you has been made. From the photographs and observation data brought back by Captain Murray we now know for certain that the new planet exists, that it is the same size and has the same chemical characteristics as this Earth and"—the Professor paused, looked up and continued slowly with emphasis on each separate word—"and it can be reached by Verron spaceship."

Then, without warning, he sat down and resumed his doodling on the tablecloth.

Immediately the room became a babble of sound. The listeners turned to each other with exclamations of surprise, compliments, congratulations and questions. Lord

Edel let it run for a minute then banged on the table for attention.

"Well, gentlemen," he said smiling, "you have heard the bare bones of the story from the two who made it come true. Now it is for all of us to discuss the effects. I think no one here will question the idea that we will proceed to organise a flight to Dziejewski's planet and that Captain Murray will lead the expedition. The project is too big and the possible consequences too serious, however, for this undertaking to be approached in any lighthearted manner. The need, above all, is for secrecy at this juncture. That is why the government cannot be called in now. The finest security service in the world could not keep a secret as big as this, even if the discussions could be confined to cabinet level. And if any other power got to hear of our plans the world political upheaval would be such as we would not like to feel responsible for.

"At the same time this tremendous scientific discovery must be utilised. A proper exploration must be carried out, and a survey made by accredited scientists of the flora and fauna, if any, and the mineral wealth of the new planet. For this a new and larger Verron ship will be needed to carry the additional personnel and provide the fuel and rocket space for the double take-off and landing requirements. Once again, gentlemen, we need money. You four businessmen, Mr. Kalamán, Mr. Jamieson, Mr. Keller and Mr. Erroll, who, between you, put up the money for the first flight must, I feel sure, feel that you have had your money's worth out of it. Will you dip in your pockets again for this, the greatest trip of all time?"

He stopped speaking and looked hopefully at the four men he had addressed. They were sitting together along one side of the long table and they turned towards each

other as Edel finished speaking. There were eager looks on their faces, but Kalamán, the biggest man financially of them all, controlled his features deliberately as he met the eyes of the others, and they followed suit. It is not good business to look keen about any proposition, however exciting it may be in reality. Lord Edel, who knew these types well, was not put out.

"Well, Mr. Kalamán, will you give the lead?" he asked lightly, then turned to the other side of the table, "Mr. Kalamán is head of World Investments Incorporated, one of the largest finance houses of our day." He introduced the big man.

Kalamán pursed his lips and looked thoughtful.

"You are right, my lord, in saying that those of us who put up the money feel that it was worth while, but not quite right in putting it in the way you did, that we had got our money's worth. We haven't had anything at all back yet. These other three gentlemen represent technical concerns and will get data from you as a result of the experimental flight that may well be worth the money invested by them in this form of research. I, however, am purely a financier. I invest money for a money return, not for scientific or technical know-how. I will get nothing at all out of this unless the results at the other end are of such value as to be a commercial consideration. To put it bluntly, what do you offer me in return?"

Captain Murray's craggy face screwed up into what looked like an expression of intense pain, but the noise that came rumbling out of him was identifiable as laughter. The scientists seemed to think the question completely unfunny, while the young men of the spaceship's crew just shrugged their shoulders helplessly. Only Lord Edel seemed quite unruffled. He by-passed the financier beautifully.

"That's a very good point, Mr. Kalamán," he said with a gentle smile, "a very good point indeed. It is undoubtedly true that the other gentlemen are more likely to be interested at this phase in the adventure. Mr. Jamieson, you represent the Britannic Electrical Corporation. It was your equipment that went into the first Verron ship and has been adequately tested. The advertisement value will be tremendous, when the time comes for publicity. Will you help with the new ship?"

Jamieson, a thin wiry man with receding ginger hair and a straggly moustache, nodded vigorously but did not respond to the chairman's smile.

"You can count on my personal backing," he said rather brusquely, "but as far as the Corporation is concerned Mr. Kalamán is right. If new territories are discovered and they have a commercial value, we will require a share in that value. I believe Mr. Keller and Mr. Erroll here will concur."

Keller, a fat smooth-faced man with a bald head, and Erroll, tall and lean with hard, quick eyes, both nodded in agreement.

"The Amalgamated Engineering Combine will wish to be represented," Keller said briefly. "And I think Nuclear Developments will have an eye on possible uranium deposits, eh, Erroll?"

Erroll nodded silently and Kalamán took up the case again.

"You see, my lord," he said with a slightly ironical inflexion in his voice, "your initial experimental flight has been such a conspicuous success, that we have already passed from that phase to the fresh phase of economic development, or at least the study of the practicabilities of such development. Scientific investigation will, of course, continue to receive our earnest support, but it must be part of the objective of the journey to the new

planet, not the whole thing. You want more money—well, what have you to offer for sale?”

There was silence at the table for some seconds and it was broken, rather surprisingly, by Captain Murray.

“Do I understand that you want to come with me on the next flight?” he asked coolly.

There was a titter from the crew members, and Kalam gulped. He certainly had no intention of entrusting his own invaluable body to such a hazardous enterprise, and to do him credit he did not care who knew it.

“Nothing of the sort had entered my mind,” he answered candidly. “I am merely asking what return is offered for the money that has to be invested.”

Then Keller interposed quickly :

“You have an idea there, Captain,” he said. “We, as principals, will not be available for such a long and uncertain journey as this must be, but we could very well be represented. You propose to take extra scientific personnel with you on the next trip to study the new discoveries from your own point of view. What I suggest is that you also carry representatives of our business organisations, who will study the chances of commercial development. My own son, who is fond of travel and has considerable flying experience, will make one. No doubt the other firms will have their own nominees.”

For the first time throughout the whole function the man who designed the spaceship spoke.

“An important factor,” said Professor Verron in his deep slow voice, “is the load carrying capacity of the ship. For each unit of weight carried the fuel load for the return journey is twenty units. If you four gentlemen all wish to have personal representatives aboard I shall have to design for more space, which means more

weight, which means about six tons extra fuel capacity. This in turn will cost more money. Is it worth it?"

Kalaman began to look angry. He glared at the Professor and then turned to Edel.

"Do I understand that your back-room boys want us to put up the money for them to have the show to themselves?" he demanded.

"Even so," smiled Edel in return, "they see their own point of view as you see yours, all-important. Our job as the planners is to take all points of view into account and arrive at a workable solution. Although what you say is correct, Mr. Kalaman, nevertheless this is primarily an expedition for exploration purposes. Suppose, therefore, we compromise. Captain Murray will take two men representing the business interests in his crew, provided it is understood that they come under his command as leader of the expedition and accept his discipline. What are your views?"

He looked from one face to another round the table, then called the names of the men who had to decide.

"Captain Murray?" Murray nodded with a growl.

"Professor Verron?" The scientist hesitated and seemed to be calculating his problem already. Then he, too, nodded.

"I will try to adapt the design," he answered.

"Good man," said Edel with some relief. "What about you men of business. Can you agree among yourselves on some scheme for representation suitable to your own requirements in the situation?"

The four glanced at each other and all nodded without speaking. To tell the truth they had little idea of what they did want out of this extraordinary adventure, and were glad enough to have got a foot in and leave it at that.

Lord Edel glanced at his watch.

"Well, gentlemen, we will meet again as the plans progress. For the moment, if we can count on you for credits, Mr. Kalaman, and on your firms, gentlemen, for the technical facilities you know we require, the new ship will be ready in ten weeks time. Shall we say that the take-off for the Dziejewski planet is provisionally fixed for three months to-day. That is all, gentlemen. Good afternoon."

CHAPTER TWO

Building the second spaceship was naturally a much quicker and easier task than the first had been. Professor Verron had all the data he needed for the new design except for some fairly simple calculations as to the additional propulsion units required for the two take-off charges. The reaction engines remained the same since, once the rockets had got the ship moving at the desired speed, the power required to maintain speed and manoeuvre was not very much affected by the increased weight and size of the ship and its crew.

The original design had allowed for the launching rockets to be carried in a detachable cage on the tail of the ship, the whole cage being dropped off when the propellant charge was exhausted. As the new ship would have to fly all the way carrying the rockets for her return take-off, the Professor designed a hollow tail to carry them. This tail was sealed on the outward flight and would only be opened when actually ready for the return journey. The hollow tail could then be filled with gas under pressure and sealed from inside the ship in order to withstand the atmospheric load on arrival.

back at earth. Extra space for the two additional scientists, and the two commercial representatives with their food and equipment, had to be provided, and then came the problem of requirements after landing on the planet.

Some kind of tools and equipment would be required and some kind of transport, but what? The spaceship had no wheeled undercarriage but used something like sled-runners and was designed to take off and land on snow or ice near the Poles. This was sound enough in itself since on any planet there would be plenty of flat space under snow, whereas the possibility of finding a natural landing field capable of taking a sixty-ton ship with a minimum landing speed of three hundred miles an hour anywhere else was pretty remote. The snag was, of course, that having landed, the crew would be faced with a trek of hundreds of miles, with very probably a sea crossing at the end of it, before they reached a sufficiently temperate spot for normal exploration to be effective.

Professor Verron and Captain Murray discussed these problems from all angles without decision, so the crew was called in to state the various requirements of the specialists and find a way to meet them. Murray told the assembled crew what the problems were and then asked each man in turn as they sat round in a circle on the grass of the disused airfield that was their camp and workshop. The first man he asked happened to be the engineer, Angus.

"You'll have to maintain any kind of mechanical vehicle we use, John. What would give you the least headaches?"

Lean, sour-looking Angus, who had already been nicknamed Jeremiah by the younger crew members because of his perpetual air of pessimism, looked up glumly.

"No one thing'll dae it," he growled morosely. "We'll not be walking off the snow so we'll need sleds, then maybe boats, then a truck for carrying men and equipment on land, and a small aircraft for reconnaissance."

Verran threw up his hands despairingly.

"Do you want me to build a third ship to carry all this stuff?" he asked plaintively. "This is impossible as an additional load."

Murray smiled. He knew his men and Angus had done no more than state the simple requirements of the exploratory part of the expedition. He turned to the pilot, Taylor, a tall, young man, the exact opposite of Angus in manner and Murray's most devoted admirer.

"What's your idea, Bill?"

"Heli-kites, sir," answered Bill Taylor promptly. "Two or three of 'em, so that when we have crashes we can use the bits on the others. Heavy fuel engines, same as the ship so's we don't have to carry petrol. They can land or take off anywhere and could taxi on the ground with quite heavy loads if you want 'em to."

Professor Verron seemed about to break out again but changed his mind and shrugged resignedly. Captain Murray addressed the next man, the radio operator Stan Miller by name, a happy-go-lucky youth and the inseparable friend of the ship's electrician, Arthur Frost, who sat beside him. The two had already discussed the matter between themselves and Miller answered firmly for the both of them.

"Got to have something with a fairly hefty engine, sir," he said. "Sparks here will need a sizeable generator to give me enough current for the longe-range transmitter and that will need a powerful motor than can run stationary for long periods on the ground. I doubt if Bill's helicopter could lift the sort of power-station I need."

"That will not be necessary," answered the Captain. "Your long-range transmitter will remain built into the ship as in flight. The exploration parties can use small portable transmitters and receivers with the main station as a relay."

"But, sir," Miller's cheerfulness vanished like a sun-beam behind a cloud, "that means Arthur and I will be stuck with the ship on an icefield all the time and miss the fun."

The rest of the crew laughed at this ingenuous approach to the responsibilities of inter-planetary exploration. But Captain Murray smiled understandingly.

"This trip is not being undertaken for fun, laddie," he said kindly. "But don't worry. You will not be called upon to stand by the ship all the time. Now just one more opinion. Devine, you will want a slow flying aircraft as the best thing for your photography I presume. Have you any other ideas?"

Devine was looking very thoughtful. A big, dark and rather restless young man, he was the only one of the crew who occasionally gave his skipper some worries as a personality. He was a brilliant photographer and a capable technician and he was quite fearless when working in his own sphere, but he could not bear doing nothing, even for a short time. His tendency to brood over difficulties that might never arise, and which he would deal with calmly enough if they did arise, made him a man apart from the team at such times. The present discussion was one to give him plenty of chance to brood over difficulties. He waited some seconds before answering.

"Any aircraft can carry me and my kit. The cine-camera with magazines, a miniature telephoto job and a tape recorder don't weigh much altogether, and any astral survey pictures can be done only from the ship

because of the telescope. But can we place utter reliance on an aircraft? A crash landing a few hundred miles from base would beat us. We'd never get back on foot carrying our equipment."

"That is a matter for organisation on the spot, Pat," said Murray quietly. "Obviously we shall have to build up a chain of dumps within easy flying range of each other and do our exploring from these. The limiting factor is the room and carry capacity of the ship and it seems that Bill's idea of a helicopter, or some form of turbine-engined rotor-craft with wheel or float landing gear, is the best compromise. But we can't take three or even two, Bill. One aircraft is the limit and damn the risk."

He paused and looked round the circle of faces. They were all keen and confident. He felt he had nothing to worry about with this crew, but another idea came out of the good feeling itself.

"While I've got you together, lads," he said quickly, "there's one other thing. We flew together on the first space trip ever made and we know we're all right. This time we shall have a bigger crew. You will feel that they are strangers, almost interlopers at first, but that won't do. The new crew must be as solid together as we were ourselves. They'll start arriving any minute now and I want you all to do your best to make them part of the team from the moment they get in. This is important, even more important than equipment. Do you understand that?"

The men nodded seriously. They could well appreciate the necessity for teamwork on a job like this. They were still looking serious when Murray dismissed them. They walked back to the ship and went about their various tasks of preparation.

The great Verron ship itself was now nearing comple-

tion. Its huge metal envelope, a dull silver in colour, stood under the partial cover of an open-ended balloon hangar. To the occasional aircraft that passed overhead or even to the casual observer from the ground she looked sufficiently like a small airship not to attract undue attention. After all no one is interested in airships these days. In shape the ship rather resembled an elongated bullet with its sharp nose and almost parallel sides. She stood on runners nearly the full length of the ship, with her nose tilted slightly upwards when on the ground. Her retractable wings, used only for flying and landing in atmosphere, were hydraulically operated and moved in and out silently like the membranes of a gigantic bat, and there was neither fin nor rudder externally, stability being afforded by the gyroscopes. What looked like a bulbous window in the nose was, in fact, a huge lense refracting on to mirrors so that the pilot and navigator in the control-room twenty feet behind could see what lay in front of and around them on a large circular screen. There was no method of direct vision through the heavily insulated triple skin of the craft and all observation was carried out through the built-in, turntable telescope.

The men of the crew were all engaged in the installation of their own specialised equipment. Captain Murray was very keen on this as it made sure that each man knew all there was to know about his own tools. Professor Verron's own team of mechanics worked on the hull or, under the direction of Angus, on the fitting of the ten powerful reaction engines. They were all busily engaged when a dozen electric alarm bells inside and outside the ship set up a clamour. There was a drill laid on for this and each man left his task and rushed to his allotted place at one or other of the hangar entrances.

The alarm had been operated from the entrance to the field, a gate flanked by the former guardroom, almost

out of sight at the far end of the runway. Captain Murray came out of the hut that served as drawing office and stores alongside the hangar and, jumping into his car, raced off across the field. He reappeared five minutes later with two passengers, and the crew noted that none of them looked very pleased. As the car approached the elder of the two was recognised as Mr. Keller of the Amalgamated Engineering Combine. He was still arguing.

"Security is all very well, Murray," he was saying as the car drew up, "but I'm a partner in this venture and my son here is one of your crew. Those guards of yours had no right to barricade us out like that."

"They were doing their job and carrying out orders," said the Captain curtly, and climbed out of the car. The newcomers looked with interest at the ship, and the younger man made straight for the ladder leading into the belly-hatch. Bill Taylor made an instinctive move to stop him, but Murray called them back. "All right, Bill," he called. "Joe, come here a moment."

Joe Keller looked startled at being thus familiarly addressed but he turned back, and Murray introduced him to the crew.

"These boys all flew with me before, Joe, and they are pretty busy getting their instruments into the new ship. Perhaps you'd like to give John Angus a hand with his engines?"

It was obvious that Murray was doing his best to make Joe Keller feel himself one of the team from the start and the young man himself seemed to appreciate it. He was a hefty specimen who looked rather like a boxer, but he had his father's sleepy-lidded, sharp eyes. He turned to Angus with a smile.

"Sure, I'd like that," he said easily. "Let's go."

The two of them moved towards the ship and there was an almost visible easing of tension among the rest of the crew. The first new boy had been accepted, but Murray was not altogether happy. He stared at the older Keller from under those bushy eyebrows and remarked, apropos nothing in particular:

"I'm not a business man myself."

Keller stared back at him comprehendingly and answered, "All the same, we'll go into the office and work out those schedules."

Once inside the ship Joe took his coat off and really settled down to work with John Angus. The engineer had already installed his six forward propulsion units and was engaged in fitting the control thrusters, a pair of engines on each side of the ship, slightly off-set. There being nothing for an aerofoil to grip in the ether a change of direction was made by applying side-thrust from these engines, after which the gyros brought the ship's nose round to the new line of flight. When Keller, senior, came out of the hut an hour or so later and called to his son, that young man appeared at the hatch in a wonderful state of disrepair. He had no overalls and his once beautiful clothes were torn and oilstained. He grinned cheerfully at his father.

"You carry on, Pop," he said airily. "I'm staying put from now on. Send some of my kit round in the morning will you. I'll manage without for to-night."

He turned back into the ship without waiting for any comments and the other men of the crew looked at each other and grinned. Perhaps the commercial types would not be so bad after all, they thought.

That evening, two more men arrived to join the party. They were the two scientists, Dr. Ellison and Dr. Eversley. The only scientists the crew had ever met before in their young lives being Verron and Dziewinski, both

sour and rather eccentric men in their late fifties, the youthful appearance and most friendly manners of the newcomers rather shook them. The two contrasted markedly in appearance, Ellison being big and well-fleshed while his companion was smaller and thinner. Nevertheless, there was really little excuse for the bad manners of the irreverent Bill Taylor who, on catching sight of the young scientists for the first time ejaculated, "Blimey! Laurel and Hardy," in a loud, clear voice. There was a moment of acute embarrassment, then Ellison burst out laughing, turned to Eversley and said, "Okay, so be it. Laurel and Hardy we are." There was a general laugh and two more had been accepted into the flying family.

Work proceeded rapidly and the Verron ship was almost ready when the last two new members of the crew dropped literally out of the sky. The ship had been drawn out of the hangar to allow Angus to test-run his engines and, in the frightful din that ensued, no one noticed that they were observed till the throttles were shut and the crew heard the quieter hum of a turbine motor directly above their heads. They looked up and saw a cabin helicopter hovering right over the ship. Seeing that he was observed the pilot brought his craft down sideways, hovered a couple of feet off the ground for a few seconds just to show that he could do it, and settled soundlessly.

Bill Taylor strolled over to greet the flyers.

"Nice work, pal," he greeted the new pilot. "I'm Bill Taylor, pilot of the ship. Pleased to see you. How's the kite?"

The new pilot jumped down and shook Bill's hand. He was a tall youth, so good looking as to be almost effeminate at first sight, though his lithe movements and resolute expression quickly dispelled that illusion.

"I'm Tony Fenton," he responded smiling. "She's a nice job all right, real silk. Meet the cargo."

This referred to his passenger who was emerging from the helicopter, a tough-looking red-haired man of about thirty with a Western-desert moustache. He introduced himself to the rest of the crew who were now gathered round.

"Bert Dowler, at your service, gentlemen," he announced with a theatrical bow. "Representing Nuclear Developments Limited. Collectively speaking, how do you do?"

The others chorused a greeting and at that moment Murray, having spotted the helicopter from his office, came across to meet the new arrivals. Bill introduced them and Tony Fenton rather shook the skipper by snapping to attention and saluting smartly in acknowledgement. Murray rather liked it all the same and his craggy face contorted itself into a recognisable grin of welcome as he shook hands.

"Nice to have you, lads," he said gruffly. "Now we're all here perhaps we can get moving soon. How are the tests going, John?" This to Angus, who was already moving back towards the ship.

"Fine, skipper," John answered with, for him, unusual cheerfulness. "Full thrust on each motor above requirement figures, no vibration problems, generators okay, and all pumps working. I'm ready when you like."

"That's great," said Murray. "Right, crew. If you'll all complete your test reports of your various responsibilities and get Professor Verron to check and countersign them, we'll be moving very soon. Fenton and Dowler come over to the office with me and I'll tell you all about the scheme."

The crew went back to the ship babbling with excitement. They had not expected to get away as quickly as

this and all were delighted at the prospect. Verron went over each man's technical gear, checking their test reports against his design figures, asking a question here and there, leaving nothing to chance before he signed the test sheets. Then the ship was tractor-towed back into the hangar, the test fuel drained off, storage batteries removed for transport and a huge sheet stretched over the hull and lashed down. By evening all was ready for transport to the dockside, and that night the crew enjoyed a wow of a party. It was so good it took most of them nearly all the next day to get over it.

The job of shifting the giant ship by road was, in itself, no mean task and it had to be carried out at night over closed roads. The silent influence of Lord Edel was evidenced in the smoothness of the arrangements. At sunset the aerodrome was invaded by a dozen police on motor-cycles escorting a low-loader borrowed from the Royal Air Force. The eighty-four feet of the Verron II were carefully winched aboard and secured by the runners, the nose of the ship projecting right over the prime-mover. Then, shortly after midnight, the cavalcade set off for the docks. Professor Verron and John Angus with two of the mechanics travelled with the ship. The rest of the crew and mechanics calmly went back to their beds. It was all so quiet and undramatic that they hardly believed that the great journey had really started.

Only John Angus out of the flying crew accompanied the spaceship with the helicopter, stores, fuel and equipment by sea to the launching site on the southern tip of Greenland, near the permanent British Meteorological Base there. All the others, under the fatherly eye of Captain Murray, spent a few days in London before leaving by passenger plane to meet the ship. Murray trusted his crew completely to be discreet in keeping their

great secret, but he did not want them hitting too many high spots by way of celebration so he accommodated them in a quiet private hotel and laid on the single rule that they must be in to take all meals together.

There was a certain amount of work to do in getting personal kit together, but in the main the men took it easy, saw a picture or two and a theatre show, had the odd drink here and there and went to bed in good time. One film that Stan Miller and Arthur Frost saw amused them mightily. It was a picture about an exploratory voyage to a planet by spaceship and they reported back to their comrades that they had no idea that flying in space was anything like that, and they hoped being on a planet wasn't like that either.

These two inseparables dropped into a bar one evening just before going back to dinner. It was early yet and the place was almost empty. They were the only two in that bar but they could hear voices coming over the head-high partition of wood and glass that divided them from the saloon bar next to them.

"Don't try to do too much," a voice was saying as they came in. "Take your lead from Ellison on the technical side. He's a capable man, and he'll see that there's no secret reporting of anything that's of interest to us."

The two space flyers looked at each other sharply. The thought occurred to both of them that the use of that name was sheer coincidence. It was a fairly common name after all and they did not recognise the voice of the speaker. Still they stood very quiet and waited for the response. When it came they both stiffened. It was the voice of Bert Dowler.

"Okay, Mr. Erroll," he was saying. "You can rely on me to look after your interests. That's what you pay me for after all, but I'm damned if I can see just how at

the moment. I'm game enough for the trip and I like the adventure. I like the boys too and I don't want to get in wrong with anybody on the outfit. Just what is it that you expect me to do anyway?"

"Just this," answered Erroll. "Those people are explorers and experimenters for the sake of exploring and experimenting. Our firm, and the other firms and people who are financing the expedition, are in it for the prospects of development that lie in any discoveries that are made. These two points of view may not always agree, and that's where you come in. Anything that is of interest or potential interest to us must be reported to us in detail, whether it is in the official report or not. We are business men not idealists or academicians and we finance this show frankly for what may come out of it for us."

There was a pause for a few moments before Dowler replied quietly.

"Fair enough, Mr. Erroll. I'll do what I can to make the trip worth while from all angles."

The barman came over at that moment to take their order. Stan called for the beers in a gruff voice that would not be recognisable through the partition, and they drank up quickly and left. They walked in silence for some minutes till Arthur asked:

"Well?"

"Well what?"

"What do we tell the skipper?"

"What can we tell him? Bert came out of it all right. He said he liked us and was keen on the trip. He obviously didn't like the dual role but what can he do about it? The business types made it clear at that lunch meeting that they came in only for what they could get out of it. That was good enough for Lord Edel as

well as the skipper and the Professor. Why should we kick?"

"I suppose you're right," answered Arthur doubtfully, "but I can't help wishing we weren't starting out on a trip like this with a divided cause. I'll bet you," he continued prophetically, "we'll be sorry about it before we've done."

CHAPTER THREE

The flight to Greenland was uneventful. Lord Edel, who accompanied the party, had chartered a private plane for the trip, and the whole crew of the spaceship, and the mechanics who were required for the final preparations for the take-off, set off in the highest spirits. Liaison was good so that they sighted the ship with the Verron II on her deck just steaming into the bay. The plane swooped and circled round the ship, while Angus and the Professor waved from the bridge.

Getting the spaceship ashore next day was a tricky job, since there were no giant cranes to lift her as at the loading end. They cut away part of the steamer's rails and swung the spaceship round thwart-ships on rollers, then drawing her off slowly by tractor. Angus looked longingly at that tractor when he thought of some of the difficulties he might encounter in manhandling the ship on the other planet. But Bill Taylor, intercepting and understanding that longing look, gave the answer.

"You might as well be lying, John, as looking like that. You can't take it with you either way."

It took two more days to load up stores and equipment, take on fuel and fit the outside cage to carry the take-off rockets. Bill made two ground-bourne runs

over the snowfield to test his motors and controls. Then he announced himself satisfied and it was agreed to take off next day. Captain Murray dished out sleeping pills to combat the almost unbearable excitement that all the crew felt, but even so, they were early astir and anxious to be away next day.

At last the moment arrived. The crew lined up to be photographed in front of the ship, Pat most amusingly embarrassed at finding himself at the wrong end of a camera, Lord Edel and the two Professors shook hands with each man in turn. They climbed into the belly hatch and took up their various take-off stations. Captain Murray checked each man's readiness on the inter-com. and the great ship slid away over the snow to her runway, tractor-swept and flag marked in the snow.

The crew were happy enough by now and it was the little group of watchers in the snow who felt the tension most. Verron stood by a small table carrying a radio set, the headphones on his ears bringing Murray's voice as he gave the final orders. The ship turned, not in a sweep but swivelling sharply in a cloud of powdered snow to make a final test of the thrust engines. She stood still, engines purring quietly for a space that seemed like an age, then Murray's quiet voice came through the phones, crisply.

"All set . . . Stand by . . . *Take-off!*"

The six propulsion engines roared, blasting the snow away behind them as the ship smoothly slid forward. Bill Taylor took her up to a hundred before he opened the great bat-like wings, then he gave her full-bore and the speed rose rapidly.

"Two-hundred . . . two-fifty . . . three-hundred . . . airborne at three-twenty . . . three-fifty . . ." came Murray's dispassionate voice.

The watchers on the ground saw the nose of the great ship lift, slowly at first, and then more and more steeply till it seemed that she must stall out of the sky.

"Stand by the rockets," came Murray's voice. A moment's pause, and then, "Rockets . . . In!"

Beneath the almost vertical spaceship the snow whirled as Angus cut in the rocket drive. The ship shot upwards as though impelled by some gigantic kick from below. Through their glasses the watchers saw her leaping up straight into the sky, the retractable wings folding back smoothly as she went, higher and higher, right out of sight. Lord Edel put down his glasses and turned to Professor Verron.

"Nice ship you've got there, flies very well," he remarked casually. Verron looked at him silently and wished he had his own feelings under control like that. He would dearly have loved to be able to say something casual or even funny at that moment but he could not. He was standing on the snow on the southern tip of Greenland, but his heart was miles up in the air and going higher every second with the ship he had built. Edel laid a hand on his arm and smiled understandingly.

"Don't worry, old man," he said, "they'll be back all right and with all our dreams come true."

Inside the ship no one could move while the acceleration of the rocket drive pinned them down. With the exception of the two pilots, all the men were lying full length, thwart-ship, in big aluminium cradles, each technician's cradle being set in front of his own work, Angus by the engine controls, Miller his radio, Frost his switchboard, and Devine, high up under the roof on a turntable under the giant telescope. Ellison, Eversley, Dowler and Keller had their cradles set against the after bulkhead of the control room so that they could see and hear what went on and give a hand to anyone if wanted.

Forward in the cockpit, Bill Taylor made his take-off curled up in a ball in his big, well-upholstered, semi-circular chair, strapped in by his flying harness, his eyes fixed on his instruments and his power-operated controls working from finger-switches and hand-levers. From a similar chair beside him Tony Fenton, the helicopter flyer, who was to be relief pilot, watched in candid admiration Bill's cool handling of the spaceship.

Over their heads, his cradle set so that he could see the instrument panel as well as his visual screen and astral charts, Murray as Captain and navigator commanded the ship. He was a capable pilot himself and had acted as relief on the first trip they had made. But he had greater responsibilities than handling controls and, now that they had a second pilot on board, he would keep himself out of the pilot's seat most of the trip.

Apart from enabling them to take the strain of the rocket take-off without black-outs, the cradles were chiefly designed for work in the gravity free spaces. A man with no weight to his body would have to hold himself down to his work unless he was caged in. Inside the cradles they could work efficiently without holding on or being strapped down. As the speed stabilised and the stresses eased, the crew looked round at each other with happy grins. The newcomers to the team were wildly excited and had difficulty in obeying the captain's orders to remain in their places.

After twelve minutes' climb, Murray logged a height of two hundred and twenty miles, obtained by telescope range-finder since the altimeter had long since given up registering. Air-speed was thirteen hundred and ten, which was faster than they had achieved with the smaller ship and suggested that Professor Verron had given them a generous safety margin in calculating the rocket charge. Angus, watching the falling column of ink-like

fluid in a glass tube that indicated the dwindling charge in the blasting rockets, called up the skipper.

"One minute to go on rockets."

"One minute," acknowledged Murray, and a few seconds later, "Rocket cage . . . *Release!*"

Angus released the light metal cage that held the rockets around the tail of the ship. For another half minute nothing happened then, as the thrust died, the whole cage containing the burnt-out rockets fell away from the craft. The ship seemed to become smoother and quieter as the reaction engines took up the drive to maintain the flying speed given by the rockets. There was no air resistance at this height and, apart from the subdued hum of the engines, the silence was almost uncanny.

"Okay, men, you can move about now if you want to. We'll have a last drink to celebrate the take-off and then take it quietly until we're gravity free and can get down to routine. That was nice work, Bill, a perfect lift."

Bill Taylor glowed. Murray's words of praise were rare enough but all the more precious for that. The young pilot, for all his lightheartedness, was keenly aware of his heavy and unique responsibility and the knowledge that his chief appreciated it too gave additional satisfaction. Dr. Eversley, who had accepted the responsibilities of quartermaster during the flight, produced a bottle of champagne and filled a glass for each man. This helped to dispel the high tension of the occasion and enabled the crew to settle down. After this there would be no more drinking in flight. Even with a volunteer crew Murray's discipline was firm and no man even thought of questioning it.

Movement at this stage in the flight was difficult. They were still gravity controlled and from this point of view the ship was standing on her tail. The idea of walking

on the walls and hanging things up on the floor took a bit of getting used to and there were many laughs and bumps as the men struggled around. Once clear in space the problem was difficult in a different way. In the cockpit and the control room behind it there were no flat surfaces. The curved walls of the ship were filled with the various control panels and handrails across the ship enabled a man to pull his floating body wherever he wanted to go.

Abaft the control room was the mess, which had a flat surface where one would expect the floor to be in a normal craft. This was an accident in the original design as Professor Verron had merely put it there to cover in the ship's generators, but a remark somewhat morosely though pertinently made by Pat Devine, "If we're going to have a floor, for our sanity's sake let's walk on it," had put a new idea into the Professor's fertile brain. As the generators would be churning out current anyway, he made the floor of soft iron and passed the current round it to make an enormous magnet. The floor was covered with soft material so that shoes could slide on it easily and each man was equipped with a pair of iron soled goloshes, a light body harness with iron pads front and back and a pair of velvet-covered iron bracelets. With this gear worn and the floor magnetised it was possible, after some practice, to walk, sit, eat, etcetera, in reasonable comfort. A reverse circuit screen round the bulkhead protected the control room and the forward part of the ship from the magnetic influence, rather in the same manner as the Degaussing gear used in war-time to protect ships from magnetic mines.

For the first thirty hours of the flight movement within the ship was reduced to a minimum and the crew fed on sandwiches and thermos drinks prepared before take-off. The men dozed, read or talked quietly to pass the time

away. Then they were roused to fresh interest by the sudden blasting of the side-thrust engines and awoke to the realisation that they had reached the limit of the gravity sphere and Bill was changing course. Their bodies were now quite weightless and Joe Keller, anxious to try anything new, launched himself into the air and floated round the control room commenting on the sensation.

"Nice feeling, blokes," he said, fending himself off Pat's turntable and rolling over helplessly in the process. "Can't feel the thrust of those motors at all. Golly! that different."

There was a decidedly queer feeling inside him as the pilot varied the speeds of the big gyros to bring the ship's nose on to the new course.

"What's the matter, Joe?" asked Bert Dowler grinning, "Feel seasick?"

Joe straightened his face as he recovered.

"That was a weird feeling," he said, "rather like going down in a lift suddenly only it happened in three dimensions at once."

He tried to turn himself right side up and his swinging foot narrowly missed the ear of John Angus. The engineer swore at him.

"Come down, you idiot. Look, if you want to dance around, go into the mess-room there and let me test the magnetism on you. Get inside and get your harness on."

Joe obeyed, floating himself through the hatchway in the main bulkhead. He put on the magnetic harness, bracelets and slippers and called out to Angus that he was ready for testing. This was the one thing that could not be tested on the ground, so Verron had provided a rheostat control with a locking device to be fixed after space-test. Angus stepped up the current flow stage by stage while Joe walked round and round the

mess deck, trying to find the magnetic pull that gave the most natural feeling. Bert and the two scientists joined him and after some argument they agreed on a setting that was quite comfortable. Captain Murray afterwards insisted on a very considerable increase in the pull, on the grounds that they would be useless on their feet when they landed if their muscles became accustomed to the light pull during their five weeks in space. A sound enough idea, but it took the skipper himself to think of it, as Joe remarked.

From then on the ship settled down to a regular routine of life. The chief trouble was, of course, boredom and the routine of duties, however light, did help to combat this. The two pilots stood shifts in the cockpit, but even there it was only a matter of keeping an eye on the instruments. Professor Dziewinski's astral charts and calculations had proved so accurate on the first flight that Murray trusted them implicitly and had set course to intercept the new planet dead on.

Barring accidents this course would not be changed till they circled the planet itself before landing. Keller had stuck to Angus and the engines since his first introduction, and in spite of the contrast between the dour engineer and the big, bouncing playboy that Joe undoubtedly was, they got on very well together. They took shifts at covering the engine controls although the main units were now silent as the ship was moving through space under its momentum only. Joe took advantage of this to investigate the engine room thoroughly and quickly became conversant with the operation of the power plant of the whole ship.

Bert Dowler shared shifts with Stan Miller at his radio, a boring, but ever hopeful business of transmitting the CQ general call-sign every hour and waiting for a reply that never came. But the real friendship that developed

between new and old crew members was that between Devine and Ellison.

The photographer was the only man on the ship who was really and consistently busy. As the ship was travelling in the opposite direction from that of the first flight the whole of the starry universe exposed to his telescope was being seen for the first time by man. He was taking pictures and making notes continuously and was perfectly happy thus absorbed. Ellison started by giving assistance without asking and, as he became familiar with the tasks, his services were accepted by Pat until they reached a point where they were actually sharing the job. They spoke very little to each other all the time but, before the trip was half over, a deep bond of friendship had formed between them.

Certainly the sky was beautiful enough for anyone to appreciate, but to those who were not particularly interested in astronomy it looked much the same any day. There was, of course, no day or night for them. The Sun shone from the same direction all the time, whilst in every other direction the starry sky was as black as night. Captain Murray encouraged anyone who wished to sit and watch the giant visual reflector that filled one side of the cockpit, and showed all that lay ahead of the craft as seen by the big lens in her nose, but there was little competition for this pastime until, after four hundred and thirty-two hours flying, they saw their objective, the new planet. Then everybody tried to crowd round the screen at once.

Devine was taking fresh photographs and anxiously comparing them with the ones he had made on the first trip to see if there were any differences. These would indicate that some features which had been previously taken for physical conformations of the planet's surface were, in fact, cloud effects. He need not have worried,

however, since his row of pictures gave as clear a map of the planet as any schoolmaster's globe. Murray persuaded him to give a short lecture to the rest of the crew about the characteristics so far observed of the new planet.

"It would appear," he said, "that the most remarkable thing about this planet from our point of view is its similarity to our own earth. We see four clearly-defined land masses or continents, taking up about one third of the total surface area, the remainder being occupied by oceans which, in turn, have permanently frozen parts at the two Poles.

"The inclination of the axis appears to be very slightly less than ours which, of course, means that the seasons will be less clearly defined and temperatures less extreme except at the actual Poles and the Equator."

"Do we know anything at all about life on the planet?" asked Dr. Eversley.

"Fauna, no," answered Pat, "but Flora undoubtedly exists in quantity and variety. Look at these photographs and observe the changes in colouring in the four months since the first lot were taken. Note the uniform but reversed changes near the extremes of the Poles as the winter has moved out in the South and in for the northern hemisphere. We have established by spectroscopic and infra-red tests that the atmosphere is virtually identical with the air on Earth and, since the mass of the planet is also the same, the air pressures must be equal. We may find completely different species of plant life but the level will be near enough the same."

"That means," interrupted Joe Keller, "that we could live there on a vegetable diet for as long as we like."

"There seems to be nothing against the supposition," answered Pat cautiously. "Do you want to stay there?"

There was a general laugh at this, for the idea of the company letting Joe strand himself on an uninhabited world struck them as funny. But Joe answered quite seriously.

"It might come to that after all."

"Joe's got a power complex," said Tony Fenton with a grin. "He wants to rule all alone like Napoleon on St. Helena."

There was some more laughter and, as it died, Pat could be heard muttering to himself, "St. Helena, St. Helena." He turned suddenly to Murray.

"I say, skipper, that's an idea. I'm tired of calling that poor star 'Dziewinski's Planet'. Let's give it a name, and why not Helena?"

"Okay," answered Murray. "It sounds all right to me, and I don't suppose it will worry the Professor what we call it. Everyone agree?"

There was a chorus of approval which was stilled by Bill Taylor's voice from the cockpit.

"Then come and have a look at your new girl-friend, fellers. She's nipping towards you at a hundred thousand miles an hour."

There was a rush to the visual screen and there before them, looking the biggest thing in the sky, was Helena. She looked about as big as the Moon normally does from the Earth, but being much larger than the Moon, she was actually much further away than that. Murray, who had followed the rush in his own leisurely fashion, volunteered the information that they had another twenty-three hours to fly before entering atmosphere. Part of this time would be taken up in a swinging circle round the planet to make contact at the same space speeds.

"I must warn you," he said, "that we may soon be feeling the effects of gravity although, as we are now

flying towards the planet much faster than any gravitational pull could take us, the effects will not be anything like those on the take-off. I suggest we have one good meal, make up some pack rations and thermos drinks, and then get back to our cradles for the arrival."

The crew carried out these instructions and settled down to sleep in anticipation of excitement to come. Bill altered course slightly, ready to start his circle, and handed over to Tony for the last time. Then hours later he called on John Angus to start and test-run the engines—all ten started at a touch, then there was one blast from the thrust motors, the inevitable sea-sick feeling as the great gyros took over, then Joe Keller tried to float out of his cradle and fell, gently but firmly, to the floor.

"Gravity, gravity, I've got gravity," he shouted to the laughter of the rest of the crew. The atmosphere in the control room was half hysterical as each man in turn tried out the movements of his own body in a strange kind of wonderment at the way it all worked. Then the side-engines blasted again and the gyros sat the dancing men down in grotesque helplessness. Murray had got the ship into position behind the planet in its own orbit and Bill was putting her nose down. They all held on tightly to the nearest objects as, for the first time in weeks, the sensation of movement came back.

A shaded purple light in the corner of Bill's facia-board flickered and lit up—the air-speed indicator was working. This was the most tricky and dangerous part of the whole flight, entering an atmosphere at over thirteen hundred miles an hour and judging speed and distance to the point where the wings could safely be opened without tearing the ship apart. Murray had climbed down from his cradle and was standing behind Bill Taylor's seat, watching the rapidly recording instru-

ments, but he made no attempt to interfere with the young veteran at the controls.

Bill put a finger on one instrument to attract the skipper's attention to it. Skin temperature was going up rapidly as the atmosphere grew denser, but it stayed below the red danger line for a time and then the air-speed started to drop. Bill drew back the hydraulic control that would spread out the huge wings, then, as the ship steadied, lifted her nose. As she came into level flight he turned his head towards Murray, a confident, youthful smile on his face again after the strained look of the past minutes.

"Air-speed four hundred, altitude forty thousand, course ninety degrees," he reported formally. "Navigational instructions please."

Murray did not answer immediately. He dropped a hand on Bill's shoulder and squeezed it hard. Then he turned back to his screen.

Everyone in the ship relaxed. She was now flying as a normal aircraft at a height that showed up the coast-lines and cloud formations clearly below them.

"Looks just like home, doesn't it," said Arthur Frost wonderingly, and he was saying what all were thinking. The sheer Earth-like naturalness of everything was a wonder in itself.

Pat had handed over one of his cameras to Ellison and the two of them were taking shots desperately as the ship sped round the new world directly over its equator. Out of these pictures, plus the long-range ones they had obtained from the space approach, they could make complete aerial maps of the planet. These could be supplemented later by details from lower altitudes and slower speeds photographed from the helicopter. The ship was flying as slowly as the engines would function properly

and, as they were not designed primarily for atmosphere flying, they were running rather hot. Angus cut out three of the propulsion units and ran for a while on the other three, but he complained to Murray that he was not too happy and suggested looking for a landing place before trouble arose.

The captain gave a fresh course and Bill turned the ship due North to fly straight over the Poles. He stepped the speed up to six hundred so that Angus could run all his engines at once on zero boost and keep them fairly happy. The photographers just had to put up with it and carry on.

Some hours later they approached the northern icefield and Bill cut the engines to glide down for close observation. They passed over several hundred miles of what appeared to be a forest before reaching the snowline but saw no sign of life. From the comparisons between the two sets of photographs Murray had been able to identify the line of permanent snow and he picked out a great plain which had land contact on one side and sea on the other as the safest place to attempt the landing. They cruised up and down its fifty-mile length and thirty mile width. It seemed to be dead flat, smooth and untouched by any living thing. Murray made his decision. He chose a spot a few miles in from the junction of sea and land and pointed to it on the screen.

"Put her down there, Bill," he said quietly.

Bill nodded, swung the ship into line and put her nose down and held her in the glide. The snow rose to meet them, smooth and free from crevasses. The question was whether it would take the weight of the ship or whether she would sink into soft, powdery drift-snow. The motors blipped in readiness to make the attempt to drag them up again if the landing was too soft, but all went well. Bill

flattened out a neat five feet above the surface and the ship settled smoothly down on to firm, snow-coated ice. The wings came back as the speed dropped and she slowly slid to a halt.

The crew watched in tense silence as Murray put on an oxygen mask and dropped out of sight into the air-lock. They knew it was no use suggesting that anyone else but the captain should risk the first breath of Helenian air. A few seconds later the trap of the air-lock opened again and Murray's head appeared minus the mask.

"Okay, men," he called cheerfully, "come and get a breath of fresh air. It's marvellous stuff, but bring some coats with you. It's damn cold."

Grabbing coats, blankets, or whatever was nearest to hand the crew tumbled through the hatch and dropped into the snow below. It was Joe Keller who made the first snowball and threw it, to start a glorious gambol around the ship.

So the young men of the Earth celebrated their arrival on a brand new world.

CHAPTER FOUR

John Angus quickly produced a big electric drill, some iron spikes and a hammer, and got the crew to work pegging down the ship. There was hardly any wind at that moment but they could not afford to take chances of damage through dragging moorings. Everyone worked with a will but they all found the unaccustomed exercise a real effort after their long confinement in the spaceship, and had to rest frequently. This worried Murray, who

decided that he would have to spend some days sending out exercise parties on foot before he could make up his first team for exploration.

The men took the adventure very calmly on the whole, though this might have been due to the accidental similarity of scenery at the take-off and landing points. One field of snow looks very much like another anyway. But there was a childish pleasure in seeing darkness come on in the evening after the weeks of continuous sunlight in space. It was a happy party that night to celebrate the arrival of the spaceship. The only man to raise a question being the irrepressible Bill Taylor who enquired, "What have we got to celebrate. We were supposed to come here, weren't we?"

Next morning every man seemed to be anxious to get down to work of some sort so Murray formed a sled team consisting of Bill Taylor as navigator, Stan Miller with a portable radio, Dr. Eversley, Joe Keller and Bert Dowler. Their task was to head due South till they reached the sea, turn West to what had appeared from the air to be a land junction, and set up a cairn with an electric beacon on it operated by a hand motor in a small hut to be erected alongside. This was to provide a navigational guide in conjunction with the ship itself for the future explorations by helicopter.

The sleeping cradles in the Verron ship had been so designed that they could, by removing the upper cages, be used as very efficient light sleds. The sectioned hut, the hand-generator with its search-light and a supply of iron rations, blankets, a compass and a Verey pistol were loaded on the sleds to form the basis of an emergency station in the hut. The value of the compass was, however, problematical as they did not know as yet the position of the magnetic North or the extent of its variation. Stan Miller loaded his portable radio set on the back of

the second sled and walked immediately behind it wearing his head-gear and microphones on a trailing lead. He was able to maintain constant contact with Arthur Frost at the main set in the ship to test the conditions for radio transmission and reception on the short-wave sets.

By mid-morning the loading was completed and the land party set off, leaving the others about their various tasks with the ship, Frost standing by the radio, Tony Fenton with the help of Angus assembling the helicopter, and Devine developing the yards of film he had used on the flight in. Captain Murray himself sat down to the unrewarding task of writing up the log. The sleds ran easily over the lightly coated ice and the walking was sheer pleasure to the long imprisoned men. They reached the edge of the icefield after seven miles march, marked the spot with a flag stuck in the ice and turned westwards along the seaboard. Stan Miller was finding the radio conditions good and kept the ship advised of their movements.

A little over six miles further on the ice became hummocky and Ellison stated without hesitation that this was the point at which land and sea met. Sure enough, only a few hundred yards on, the ground started to rise slightly and became a little more uneven. Taylor, looking at things from the point of view of the flying man who would have most use for the station, insisted on the cairn being set up on the first rise in the ground although they could see higher land only a few miles away. He maintained that the only real value of the thing as a station, as distinct from an observation point, was to be the visible corner of an emergency landing ground, so he would not move from the edge of the smooth ice.

The two scientists, supported by Dowler, wanted to press on to get some idea of the land formation. They could have appealed to Murray over the radio, but

Bill would not hear of it, so the party divided, leaving Bill, with Joe and Stan, to set up the station. The little hut was quickly erected and pegged down. Then the generator was installed so that a man inside the hut could turn a handle and generate enough current to send a strong beam of light vertically into the sky from the top of the cairn outside. A hole in the ice inside the hut held the stores and blankets, and the Verey pistol with its rockets hung just inside the entrance within reach of any unfortunate who might be injured or too exhausted to operate the generator. It was Murray's intention to set up a chain of such stations along the routes of the exploration parties and, although it was hoped they would never be used, Bill Taylor was determined that the installations should be well done. It took three hours to complete the job and, with a ten mile walk back to the ship, they had to start almost immediately. The scientists got back to the hut in time to eat their thermos-warmed meal with the others and the whole party set off in a direct line for the ship. Bill made careful observations at intervals along the march and was able to log the direct line distance accurately.

Bill was rather unhappy and reported privately to his skipper his concern about the division of objectives in his party that day. Murray took it lightly, however.

"It was my fault really," he said. "I was regarding the walk itself for exercise as the main objective in sending you all together. If I had laid down a specific objective, and named a commander for the expedition, no one would have thought of questioning it. Don't worry about it."

Bill was much comforted by this, but he was not entirely happy all the same. He knew that the crew were solid enough under Murray's personal leadership but he felt that there was not enough unanimity of purpose.

However he was not in a position to do anything about it himself and soon forgot the unpleasant feelings.

During the next few days several other walking expeditions were sent out in different directions where these observation points were established to facilitate accurate astronomical charting. Tony made several short flights in the helicopter and practised dropping and picking up without landing by means of a rope ladder. Devine, with a lot of help from Ellison, built up a very creditable set of maps in preparation for the main job of exploration, and Bill Taylor, having no flying or navigating to do at the moment, took over the job of quartermaster with some interesting results. He was an inveterate experimenter, and he developed a technique of mixing up odd ingredients at random, and serving the results under the generic name of "goulash". Some of the concoctions were quite creditable and even edible!

The really interesting thing that cropped up during these days was the behaviour of Stan Miller's radio. He kept picking up carrier waves in the lower sector of his medium-wave band. The wave-lengths were so consistent that he was able to log about a dozen clearly defined emissions giving faint but positive audio-frequency reception.

"The results suggest," he wrote in his report on the subject, "that a number of broadcasting stations of moderate power are operating in regular routines on wave-lengths of between two and three hundred metres and, from the consistency and clarity of the reception, that these stations are not more than a few hundred miles away."

The radio man had taken it all very calmly and when he found the cockpit, which Murray was using as an office while the ship was grounded, empty when he took the report in, he just put it down on the desk and left it

there. No one had ever seen the skipper look so excited before as he was an hour later after reading that story. He came flying out of the belly hatch shouting for Miller.

"Miller, Miller, Stan Miller, where the devil are you? Come here you ether-eating mugwump. What does this mean, a joke?"

He waved the piece of paper in front of the surprised operator, who was looking completely nonplussed at all this fuss and noise.

"Of course not, skipper," he answered in a slightly aggrieved tone. "It's my report on the summary of the log results since we landed, that's all."

Captain Murray cooled down quickly.

"Do you realise what you've said here?" he asked quietly. "In talking about broadcasting stations operating in regular routines, you are suggesting that this planet is inhabited by a highly developed humanoid race with an organised society and advanced technical knowledge."

"So what?" said Miller coolly. "We always said this place was just like the Earth. Why shouldn't we expect to find civilised people on it?"

All through the history of the human race men of mature stature have been getting occasional shocks from those whom they described as the younger generation. Murray was getting one of those shocks now. He looked round the circle of faces, interested and somewhat amused, but with the exception of the two scientists, none of the crew looked terribly surprised at the great news. Murray shrugged his shoulders and gave it up as a problem.

"All right, laddie, I give in," he said with a smile, "but come inside and let's talk about it."

That evening when they were all gathered in the mess-

room, Murray raised the subject again to the whole crew.

"Although we circled the planet at its equator on arrival," he began, "and then flew due north to this ice-cap without seeing any sign of life, I had not ruled out the possibility of the existence of fauna on the planet or even the presence of some form of intelligent, reasoning life. I was not, however, prepared in my own mind for the idea of a civilisation comparable to our own on Earth. I will read you the report that our more open-minded radio operator left on my desk this morning, and we can then discuss the implications of it together."

He went on to read Stan Miller's report in full and supplemented this with a precis of his later questioning. Then he continued:

"Unless we can find some other explanation altogether for the facts that Stan has observed and recorded, we must accept the idea of a human or near human race on Helena, who live in cities or groups, hence the different stations, and whose technical development is on somewhat similar, or at least parallel lines to our own. If this is so we are faced with somewhat different objectives than those which I, at any rate, had conceived. Instead of mapping and collecting geological samples and so forth, we must at once concentrate on the much greater discovery of the new people. This may mean greater risks, though we have no reason to suppose at the moment that they will be any less friendly disposed to us than we are to them. I am putting it to you, therefore, so that we may be agreed on our immediate lines of investigation."

There was silence for some moments after the captain had finished, and the first man to speak was Dr. Ellison.

"I don't quite see," he said slowly, "why you take it for granted that this discovery should turn us away from our previously agreed objectives. We came here to explore the planet and check on its mineral prospects and

to my mind we should do just that. If, in the course of our explorations, we meet these people or animals or whatever they are, we can find out all about them as we go."

"I agree," said Bert Dowler quickly, but looking slightly embarrassed. "The people who made this trip possible by their backing are not likely to be as much interested in the inhabitants as in the survey results. We can do both, of course, but the original job should come first."

Stan Miller and Arthur Frost exchanged meaning looks. They were both thinking of those voices in that bar on their last evening in London and particularly Erroll's words of advice, "Take your lead from Ellison . . ." This was working out now.

Murray looked at Joe Keller.

"You're the other commercial representative, Joe. What do you think of that?"

Joe hesitated for a moment, looking round at the faces of the others before he replied.

"Frankly, sir, I don't think it matters. We can hardly survey the planet without making contact with the people, and when we do, they, rather than we, will decide our next moves. I'm prepared to leave it entirely to your judgment."

"That's a point," interposed Eversley, "and there's more to it than that. If we meet these people, get friendly with them and learn to talk to them, they'll tell us more about the planet than we could possibly discover for ourselves in a year's exploring."

There was a chorus of agreement at this, although it was noticeable that neither Ellison nor Dowler joined in. Murray laid down the report and picked up another piece of paper from the table.

"Okay, troops," he said briskly, "we'll start to-morrow. The helicopter will work down the coast from the point where your first sub-station was made, and will set up depots every hundred miles on a leap-frog system. We will leave a skeleton crew on the ship manning the radio, etcetera, and, by alternate lifts, will move two other crews depot by depot down the coast, one move a day. During that static day each group will explore within safe limits around its depot. If we have not made contact with anyone after ten days down the coast we will turn inland for five days more. At the end of that time we will return to base and consider flying the ship itself on a longer survey flight. Here are the orders for the march."

He handed his piece of paper across the table to John Angus and the others crowded round to read it. Angus was to remain in command of the ship, with Arthur Frost and Bert Dowler to maintain a twenty-four hours a day manning of the radio. The exploration party would be divided into two flights, one led by Murray with Tony Fenton, Dr. Ellison and Pat Devine with his cameras, the other under Bill Taylor and Stan Miller and the radio transmitter, Dr. Eversley and Joe Keller. This division was necessary as Tony, although a very skilful pilot, was a poor navigator, whilst Bill could navigate as well as fly.

The lift started next morning with Bill Taylor taking the helicopter with the crew of his flight, one of the collapsible huts, blankets, rocket pistol, stores, etc., and enough reserve fuel for a double flight. Just a hundred miles down coast he found a good clear place, well clear of ice and within sight of the first trees. He dropped his crew and stores and all the fuel not needed to get back, then returned to the ship within two hours of starting. Tony then flew Murray's flight, similarly equipped,

landed for a few minutes to inspect the first base, then went on to set up another a further hundred miles along the coast. He came back to the ship alone, picked up Bill and every gallon of fuel the aircraft would take, and flew out again, dropping Tony and half the fuel at the first station and then carrying on to rejoin his own flight. Thus they had established two stations in the first day, with reserve fuel on them for four extra flights.

On the next morning Tony started with an empty flight to pick up a maximum lift of fuel from the base ship and then the two flights leap-frogged another two hundred miles along the coast, leaving their flag-marked hut stations with the reserve supplies to form a chain behind them.

For three days they kept up this pace without incident. Pat took photographs on each lift and pieced together a good map of the coast, but neither by direct observation nor from a study of the photos could they find any trace of life, let alone industrial activity. The trees were so thick that it was impossible to penetrate far into the forests. They were mostly of the needle-bearing type such as would be found in similar latitudes on earth. Dr. Eversley took cuttings and made voluminous notes about this Helenian flora, but he admitted that it differed little from the home-grown varieties. Ellison, the geologist, was disappointed as the little spaces between the sea and the impenetrable forest consisted entirely of tundra-covered, sandy soil with no rocks for him to knock chips off with his ever-ready hammer.

On the evening of the third day Stan Miller again produced a bombshell. He had been in radio contact with the ship chatting with his friend Arthur, and sending in the day's log. Then he switched off the short-wave band and started running through the wavelengths he had logged earlier from the ship. He tuned

in carefully at one point and then called to Bill to come and listen. Bill strolled over casually and slipped on the earphones, then he jumped as if stabbed. Clearly and unmistakably came the sound of a voice. The language was like nothing Bill had ever heard before, but there was no doubting the fact that it was a real voice, a trifle higher pitched than earth-human custom but with a pleasant, full expression and at one point definitely humorous. Dr. Eversley and Joe Keller took turns to listen and confirmed the fact of the indisputably human intelligence behind that voice. Then a fresh thought occurred to Bill.

"What range do you think you're working on, Stan?" he asked.

"Can't be at all certain," said the operator. "Generally speaking, I've found radio conditions here pretty good, but in this case I have no idea of the power of the station I'm receiving which makes things difficult to judge. Actually I got this fellow last night—two hundred miles back, but it was too faint to report on. Between there and here he's come in with four or five times the strength, so I guess he can't be more than another couple of hundred miles off at the most."

"Damn it, man," Bill shouted at him, "won't you ever realise the implications of your work. You're saying that this station is less than two hundred miles away and the skipper's camp is a hundred miles ahead of us. We've got to warn him."

"Okay, Bill," said Stan, still casual. "Can't see what all the excitement's about now, but we'll have a go."

The only radio in Murray's camp was the one in the helicopter itself. It was not a big set and its telephone range on the ground was small. Stan, therefore, tried to reach them on his telegraph buzzer, but had no success. Tony Fenton had switched off after Murray had heard

the reports from the ship's powerful transmitter and he had no reason to think that Bill would try to call him up on the portable set afterwards. Miller got into touch with the ship again and asked them to call up the helicopter, but there was no one listening at that time so, rather worried, Bill gave up the attempt till morning.

Both camps slept quietly that night, the men on watch in each place sitting by the fir-cone fires that provided a little light and warmth, though the nights were no longer arctic by any means. The dawn guard in Murray's camp was Devine, taking the two hour watch from four to six. He got up from his seat when the light became good and strolled towards the edge of the woods to get some more cones for his fire. The trees here were less thick than they had been all the way down the coast, and it was possible to walk right into the woods. Pat did so. He was perhaps a dozen feet inside the trees when he became aware that he was not alone. He peered around in the dim light. All round him, by every tree trunk, silently staring at him, were men.

CHAPTER FIVE

They were little men, a good foot shorter than the hefty Pat and slightly built. They did not look very frightening. Their clothes were simple, knee-length smocks of a soft-looking fabric, olive green in colour and gathered at the waist by heavy belts that appeared to be made of a coppery-coloured metal. Their feet and legs up to just below the knee were encased in some heavier

fabric wound round foot and leg like puttees and gartered with rings of the same metallic stuff. At each man's belt there was an obvious weapon looking like a rather cumbersome pistol, but none of them made any move to touch the weapons when Pat saw them. From the fact that they were so uniformly dressed and armed it was obvious that they were an organised force, soldiers or police.

Looking around again Pat spotted that one of them was distinguished from the rest by the fact that he wore a lanyard round his neck and a small star-shaped badge on his left breast. Guessing that this man must be the leader, Pat faced him and raised his right arm, palm open, in what is generally accepted anywhere on Earth as a salute of peace. For a moment nothing happened, then the leader slowly imitated the greeting. Pat smiled at him and the little man smiled back. Then in a moment all the little men were smiling and moving slowly towards him.

Realising that he must look a formidable giant to these friendly little strangers, Pat took care to move slowly and deliberately. He beckoned the leader and then turned, pointing to the sleeping camp. The leader nodded and they all moved towards the hut. Pat went inside and gave Murray a gentle shake.

"Wake up, skipper. We've got visitors."

Old campaigner Murray woke instantly and completely without any preliminary stretching and yawning. He looked hard at Pat's face, reading his expression accurately.

"Friendly natives, eh!" he remarked calmly. "Okay, I shan't keep you a minute."

Pat went outside again smiling reassuringly at the little men and a few moments later Murray joined him. Pat led him over to face the leader of the Helenians and tried

to convey that Murray was their chief by touching the star on the little man's breast and then putting his finger on the same place on the captain. This did not appear to get over till Murray produced from his pocket a small silver badge of the Sun and planets that had been given to him by Lord Edel on behalf of the Universal Exploration Club, and stuck it into his shirt. Immediately the little man's face was wreathed in still broader smiles and he extended both his hands together towards his opposite number. Murray accepted the two-handed shake in a like manner and turned to introduce Dr. Ellison and Tony Fenton who had just emerged from the hut.

"What's cooking?" asked Tony, blinking at the semicircle of green clad little men. "These fellows playing at Robin Hood or something?"

"Not exactly," answered Murray. "These are our Helenian hosts, and they appear to be friendly enough, although a little nervous. Treat them gently please."

Tony had come out of the hut just in time to see the double hand-shake between the two captains so, at Murray's words, he immediately turned to the nearest of the little men and held out his own hands with a cheerful grin on his face. This broke the ice completely as the man responded warmly and they all crowded round closer, obviously losing fear of the giant strangers rapidly. After a few minutes of handshaking and more smiles, Murray led the way over to the helicopter.

"Get in," he said to Tony. "Switch on the radio and try to get the ship."

Tony obeyed and Murray motioned the Helenian captain to follow him into the plane, but the little man hung back. Murray did not press him and they waited by the open door while Tony operated the radio.

"Calling Verron II, calling Verron II, over," called

Tony, and the little man nodded his understanding of radio procedure.

"Right, skipper, Angus answering now," said Tony.

Murray stepped into the plane and went to the radio. The Helenian made no attempt to stop him, but remained by the door of the plane watching.

"Hello, John, Murray calling. We've met the people of the planet, twenty of them, soldiers of some sort. They are very friendly but a bit scared of us. We'll probably have to go with them for a while and leave the plane here. Will you call up Bill and tell him and his flight to stay put till we can get sorted out. No, nothing to worry about as far as I can see. Stand by and I'll call you again if I can get any idea what's going to happen next."

He stepped down from the plane and again tried to invite the little man inside, but he would not go and, instead, pointed towards the woods. It was clear that he was suggesting that they should all go in that direction. Murray tried again, pointing to the helicopter and Tony and then up into the air, but this only created puzzlement so he gave it up.

"Call John again and tell him we're leaving the plane and going along with the Helenian army," he said to Tony with a rueful grin. Then turning to the captain he nodded, smiled and pointed to the woods in acceptance of the orders or invitation, whichever it was. Tony passed on the news to the ship, locked up the plane and joined the others on the ground, then in the middle of the group of soldiers they all moved off into the woods.

It had been rather late the previous evening by the time they had pitched camp and they had not had any opportunity to examine the terrain closely. As it happened they found that they had landed almost at the edge of the great forest and there was a clearly defined path which led within a couple of hundred yards to a large

open space. When they came into this space they all stopped dead in amazement. Their first thought was that they were looking at the Verron ship, but a second glance showed them that the object before them was a gas-bag.

"Blimey!" gasped Tony, "a blinkin' dirigible, and a neat bit of work at that."

His appreciation was justified for the airship was a neat and well-made job. Its graceful, cigar-shaped hull was a dull silver in colour and the long carriage underneath was mounted directly onto the hull. A projection at the rear of the carriage indicated some form of propulsion unit whilst doors and ports forward were obviously the passenger accommodation. She was anchored by metal cables attached to nearby tree-stumps. Directional fins and stabilisers mounted centrally on the envelope revealed that she was a rigid ship. Her metal work looked like aluminium with a faint coppery tinge to it, obviously a light alloy of some sort.

At this point Pat had a go at solving the language deadlock. Like most expert photographers he was a useful hand with pencil and sketch-book, which he normally carried with him. He whipped out these implements and rapidly drew a sketch of the airship just as she stood against the background of trees. This he showed to the Helenian commander. Then he drew the same airship ascending into the air, and by an obvious if slightly overdone facial contortion of interrogation, got the man to agree that flying was the function of the craft. He followed this with two similar sketches of the helicopter aided by much pointing back along the path through the woods and then upwards into the sky, and indicating Tony Fenton as the flyer.

The little man grasped the idea quietly and Tony was escorted back to his plane by two of the guards. A few

minutes later the sound of the turbine engine was heard and the helicopter appeared over the tree-tops. Tony lowered her gently alongside the groups of men and the two guards leapt out of the machine in great excitement, apparently trying to tell the others how the thing worked. They were all somewhat afraid of the whirling rotors but intrigued at the ease of handling as compared with their bulky gas-bag.

Murray's chief worry was the welfare of Bill Taylor and his party, now marooned at the forest edge a hundred miles to the northward. He was quite keen to go with the Helenians to their city or headquarters but was afraid that it might not be easy to get away again quickly. He asked Pat to try to make the little men understand that there were four more of the giants within easy flying range. They had a most amusing few minutes drawing, pointing, lining up men in four and counting them and finally reached a partial understanding by which Murray and the Helenian commander with two guards, and Tony at the controls took off in the helicopter and set off northwards in a leisurely manner, so that the rest of them could follow in the airship.

The dirigible appeared to be capable of about eighty miles an hour. She was propelled by some kind of jet engines that were fairly quiet in operation but seemed to have no control for variation in thrust, either on or off and nothing in between. Tony showed off a bit by circling round the Helenian ship at close quarters, a proceeding which gave everybody great fun and helped to improve still further the friendliness of the atmosphere. They reached the stage-camp an hour and a quarter after take-off and Tony put down his plane immediately, while the airship came down by diving under power and throw-out out grapnels by which she winched herself down. It looked a risky sort of manoeuvre to the Earth-men, none

of whom had any practical experience of lighter-than-air craft, but the Helenian flyers took it quite for granted.

Bill's party had received the message relayed from the Verron ship that Murray's group had been captured and were surprised and delighted to see them turn up this way on the best of terms with their "captors". They discussed quickly the idea of trying to carry on to contact the rest of the party on the Verron II, but Murray decided against it for the time being. The ship and its crew were safe enough where they stood and contact could be maintained by radio. The commander settled the problem finally by pointing to the South and herding everybody on board. As before Tony and Murray went in the helicopter and the rest in the airship.

After flying for an hour and a half and passing their overnight camp, they saw the estuary of a large river below them. The Helenian pilot was apparently flying by visual contact, for he went right over the river and then turned westward and inland. About thirty miles up river a Helenian who appeared to be the commander, though not the pilot, of the airship, came forward and pointed out of the wide observation screen in front of the passenger cabin. The Earth-men gathered round and looked down. Immediately below them the ground appeared to be dead flat and free from trees. It was criss-crossed at fairly wide intervals by what looked like straight, narrow waterways. There were no recognisable roads and no signs of traffic on the ground. At some of the intersections of the waterways there were buildings, long, low shed-like structures with gleaming glass roofs.

As they came further in they saw in front of them the city. On the North bank of the river, methodically laid out in blocks and squares, was the residential quarter, one, two or three storey buildings, well spaced and with grass and shrubs between them. Paths were clearly

defined across and round the open spaces but still no traffic roads could be seen. On the South bank there were roads, radially disposed from three docks, like three slightly overlapping fans. The mysterious thing about them was that they did not seem to lead anywhere. The longest of the roads was about a mile, the others varying down to half that distance, and there, in the middle of the green plain, they just came to pointless stops. At intervals along the roads, thickest nearest the docks, were more of the big glass-roofed sheds like these on the water-ways across the river.

Looking downwards at the scene of civilisation below they did not notice the approach of other craft until they suddenly noticed that the sky was full of them. There was one other rigid ship like their own and then a lot of small craft that appeared to be non-rigid, most of them not much bigger than balloons. All had the metal alloy cabins made fast directly under the gas containers and all were propelled by stern motors. By a rough guess compared with the speed of the ship they were flying in, the smaller craft were cruising at speeds varying from thirty to sixty miles an hour. They passed very close together and appeared unbothered by the risk of collisions.

At the very edge of the city buildings, and right on the North bank of the river, was the landing ground. A large field cut into rectangles by concrete paths with grass verges was laid out like an elongated chess board, the rectangles being surfaced rather like hard tennis courts in alternate colours, red and green. Each one had a symbol in the centre, large enough to be clearly identified from the air, and across the width of the rectangle were stripes or bars about six feet apart.

The airship turned into position at one end of the field and made the usual approach with the power on and the

elevators thrusting the nose down. It was obvious that she was diving on one particular square at the city end of the landing ground. When almost over it the four grapnels dropped and caught in the cross-stripes that now were seen to be flexible ropes. Then the engines stopped and the electric winches quickly pulled the ship down to the ground. It was all so simple and efficient that Bill Taylor sighed.

"There's nothing new under the sun," he said sadly. "We thought it was a bright idea when we did that in the Fleet Air Arm on carriers."

"Cheer up, chum," answered Stan Miller sympathetically. "I'd like to see the mess they'd make if they tried to bring in the Verron II that way."

Led by the airship's commander they all trooped down a gangway slid from the nose on the cabin and walked over to the large, low building at the end of the field that presumably was the administrative centre. The helicopter was then hovering at roof height just in front of the main entrance, the roaring of its engine and the swish of the rotors creating a half-fearful interest among the little people who danced around in the doorway and stuck their heads out of windows to see the monster. The Earth-men grinned at the sight.

Tony Fenton was a born showman and it was easy to imagine him thoroughly enjoying the excitement he was causing whilst he pretended to take time working out where to put the plane down. Eventually he settled right in front of the entrance to the building, gave the engine a final blip for luck, and switched off. The door of the helicopter opened and the Helenian Captain appeared, stood dramatically on the step for a moment and then leapt down. This was a big moment in his life, and it was comical to see his proprietorial air as he gathered up his troupe of giants and led them inside.

Apart from the rather school-desk size of the chairs the place would not have been surprising at any airport on Earth. There were the usual waiting rooms, offices and uniformed attendants. Some of these were women, small delicately made creatures, very good-looking in a childish kind of way and with skins the colour of honey. Tony stared at them with quite open interest, then shrugged his shoulders.

"I suppose they do the same here as we do on Earth," he remarked, "put the best lookers at the airports to kid the visitors along a bit."

Bill Taylor laughed.

"You've got it wrong, Tony," he said. "We don't put 'em there, they come by themselves just to be near the handsome flyers like you."

Tony grimaced at him. He was a bit sensitive about cracks at his good looks. He picked up a cushion and slung it at Bill's head. It missed and hit Joe Keller, who was standing with his back to them. Joe, always ready for a spot of horse-play, grabbed two cushions and flung them back at Bill, who tried to dodge and stumbled over a chair rolling onto the carpeted floor where Joe promptly jumped on him, calling to Tony for help.

The effect of this playful scene on the Helenians was terrific. The women dived into corners with little squeals like mice that see a cat coming. Some of the green-clad guards from the airship rushed into the room drawing their pistol-like weapons, but when they reached the wrestling trio on the floor they stopped uncertainly. Murray shouted at the contestants to break it up, which they did instantly and stood up, Bill swearing loudly but all of them grinning. The Helenians looked with respect at Murray at whose simple word of command the roaring giants ceased battle immediately, and then looked rather puzzled at the grinning, friendly faces of the three who

had so recently been locked in mortal combat but now seemed quite harmless again. The Earth-men had learned their first lesson in the manners and customs of Helena—violence is not funny.

A few minutes later the Captain returned accompanied by another man who seemed to be a person of some importance. He was dressed in a smock rather looser and fuller than the uniformed men, coloured a very pale green and embroidered at the neck and at the cuffs of the elbow-length sleeves with some metallic-looking thread. His feet were bare, as were the feet of all the people except the soldiers. He was introduced to Murray, who offered the two-handed shake in acknowledgment, and started speaking rapidly. The Earth-men all shook their heads together to indicate their complete non-comprehension. This stopped the newcomer's flow. He turned to the Captain and spoke with him for a few minutes, then, apparently making some fresh decision, he took Murray by the arm and led the way out of the building.

They went across the wide open space between the air-field block and the nearest city building. The lawns between the blocks were of a very fine grass, almost moss-like in appearance and crossed by paths of pinkish concrete. This path went right into the house and then, somewhat startlingly, just turned into an escalator. One floor up they were ushered into a large room furnished like a board-room with a long table down the centre. Here they understood they were to be seated and they were served with drinks in metal goblets. The drink was cool, very fresh and looked something like lager without the froth. As each man drank an attendant topped up the cup again, so that they never got anywhere, as Bill duly remarked.

Some minutes later a small procession entered the room. The man who had brought them across from the

airport led, followed by six others. The Earth-men rose in greeting, exchanged smiles and all were again seated. Then came two more Helenians, one of them carrying a box-like contraption which he placed at the head of the table. As soon as all were settled, the leader of the home team addressed a few words to the visitors. Murray courteously replied.

"Sorry, old chap, I haven't a clue what you are talking about, but it's nice to meet you."

There were some more smiles and then the next man in the line spoke a little, no response from the visitors, a third man had a go. Dr. Eversley realised that they were being addressed in different languages or dialects and tried to convey the hopelessness of the attempts by shaking his head sadly. Then the box affair was opened up and, to their amazement, the crew heard their own voices repeating all their conversation during the voyage on the airship. Their looks of surprise seemed to amuse their hosts, who put on another tape record. This contained the whole of their two-way talks by radio between the camps and the ship on their last day. The recording was very clear.

One of the men made some simple one syllable sounds and accompanied these by making marks on a piece of paper. Eversley took the paper and repeated the sounds pointing to each mark in turn. The Helenian rose, walked round the table and took Eversley's arm. He gave an order to the attendant to pick up the recording apparatus, and the three of them went down the room and through a doorway in the end wall. There was a further exchange of smiling between the teams and another handshake for Murray. Then the Helenians went away and the Earth-men were shown into a very luxurious shower-bath room, about twenty showers spurting from floor, walls and ceiling, starting cool at the beginning, hot in

the middle and cooling off again at the end of the long room. They enjoyed this and, when dressed again, went back to the board-room for a meal.

This consisted of a green salad with a lot of little cubes of cake-like stuff that tasted of various savouries, accompanied by some more of the still lager to drink. They had almost finished when the end door opened and Eversley came back. He was flushed and excited and looked slightly tipsy. He came striding up to the table addressing the whole company at once.

"This is wonderful, wonderful," he cried. "They've got good recording machines, marvellous memories and a simple, phonetic language. We can already understand each other quite well. I am teaching him English at the same time. What is this, food? Good. I must eat, then I will sleep a little and go back to work. Excuse me."

He seated himself calmly and started to eat. Murray looked at him curiously.

"Have you had any drink or dope in there?" he asked bluntly.

"Yes, yes, of course," answered the scientist between mouthfuls. "A short, hard drink, like a liqueur. Violent mental stimulant, speeds up the brain functions remarkably. Great idea—do a day's work in an hour. Got to sleep in between spells though he told me. Excuse me again."

He jumped up from the table, took a pull at his goblet while standing, and walked quickly back through the end doorway out of the room.

"That's one man busy," remarked Ellison, watching his companion's hurried exit. "The question is now, what do the rest of us do?"

"I vote for a walk round the town," said Joe Keller

without hesitation. "Any objections from your end, skipper?"

"I don't think so," answered Murray hesitantly. "We might as well begin by taking it for granted that we're free to go where we please and are not afraid to separate in doing so. Take it easy though and don't try to press into places where it seems you are not wanted. Meet here in three hours. Miller, I'd like you to stay with me to transmit a radio message back to the ship. You others can carry on."

They all got up from the table and went out, down the escalator and across the pink-pathed lawns. No one tried to stop them, but little groups of the green-clad soldiers trailed them from corner to corner, keeping them under observation in a discreet manner. The party broke up into two groups setting off in different directions, all agreeing to report back what they had observed in detail that afternoon. The city was not too large and they would have explored it fairly thoroughly that way in the three hours they had been given.

CHAPTER SIX

When Bill Taylor, with Tony Fenton and Joe Keller, returned to the house, they met Murray and Stan Miller coming back from the airport. Murray hailed them and expressed surprise that the two pilots had not looked in at the flying field out of technical interest.

"Some very interesting stuff there, Bill," he remarked. "They appear to be using only lighter-than-air craft of various sizes for all their personal transport from two-

seaters upwards. They are all propelled by simple jet engines at what we are used to as car speeds, and they don't worry about the odd collision in the air any more than our motorists do. So far as I can make out this airport is for commercial and visiting craft and the ordinary private flyer lands on his own roof as and when he pleases. Pleasant, easy, quicker than motoring and, so long as winds are moderate, safer."

"Pretty boring though," answered Bill unenthusiastically. "Even that trick-flying crate of Tony's can make rings round them. Eighty miles an hour on jets! What's the good of that to a real man?"

They had, whilst talking, reached the entrance to the house. Some other people were going and coming on the escalators but they cast only casual glances of interest at the Earth-men, which surprised them but made them feel at home more quickly all the same. As they went into the big room that was apparently to be their headquarters they saw two figures standing over by the window on the far side. The figures turned as the party entered. One of them was Dr. Eversley.

He was dressed in a Helenian smock of pale blue with the same kind of embroidery on the neck and sleeves as his companion. He looked fresh and fit and quite unembarrassed or self-conscious. He smiled at Murray, but before either of them could speak, his companion addressed them.

"Good afternoon, gentlemen. I hope you enjoyed your walk through the city. Please sit down."

The Earth-men just stared at him blankly. His English was flawless, just a shade too precise to be quite natural but without any trace of foreign accent. Dr. Eversley laughed, delighted at their amazement.

"Wonderful, isn't it?" he said. "We have just finished four hours work with two rests of half an hour each and

we can speak to each other quite well either in English or North Helenian. That stimulating wine is of great assistance, of course, but the main secret is a very fine system of memory training these people have discovered and perfected. It is so good that they have no system of handwriting at all. They have no need to take notes, telephone messages serve instead of letters and records, if used at all, take the form of 'aides memoire' in cryptographic codes."

"Excuse me please," interpolated the Helenian. "The words 'aides memoire' I do not understand."

Eversley turned to him smilingly.

"Sorry, too many languages at once," he said, and went on to explain the meaning of the words to the Helenian in his own tongue.

"What's the idea of the fancy dress, Doc?" asked Bill.

The scientist looked down at his smock almost as though he was surprised to notice it.

"I have been made an honorary Doctor of Philology," he explained calmly, "and this is the gown of the college."

"Please tell us what you saw in the city," asked the Helenian. "I am sure you will have many questions to ask."

Captain Murray was staring hard at Eversley and looking rather worried. The scientists were queer creatures anyway by the standard of the rest of the adventurous crew, but this sudden going native on Eversley's part was startling. How much of it was a true expression of the man's own personality or how much the effect of the stimulating drug he had been using could not be known yet, but if the rest of the crew were similarly affected, Murray might find himself a commander without troops pretty soon. Meanwhile Bill Taylor was taking up the Helenian professor's invitation.

"We walked round the city and down to the riverside,"

he said. "You appear to have no wheeled vehicles, and the flat barges on the river and the airships that seem to be the only passenger carriers are all powered by these simple jet engines. What are your power units?"

The professor looked rather puzzled and exchanged some words with Eversley in Helenian. Then it was the Englishman who answered.

"The professor is somewhat puzzled at the fact that, of all the things you might have asked about the Helenian people, their history, social organisation and so on, the only thing you want to know is a minor technical point, so minor, in his opinion, that he does not know the answer and does not care. He, as a learned man of letters, is not concerned with such matters. We will, however, arrange for specialists in various technical branches to meet with you and deal with your questions."

This time it was not only Murray who noticed the scientist's complete identification of himself with the new planet. He had said "*We* will arrange . . . to meet *you*," instead of "*they* will arrange to meet *us*," as might have been expected. There was a rather uncomfortable silence for a few moments while they thought about this development. It was broken by the arrival of a messenger, who came quickly into the room and spoke to the Helenian professor rapidly in an urgent voice. Eversley, who had listened openly to the messenger, turned to Murray.

"Some of your men are in trouble, Captain," he said. "They tried to get into a power house against the wish of the custodian, and they have been arrested for their own protection only. They are being brought here now."

Murray's rock-carved face showed no change of expression at the news, but he stared hard into the eyes of the scientist.

"Whose side are you on, Eversley?" he asked bluntly.

If he had expected Eversley to be disconcerted by the question he was disappointed. The man looked straight back at him and remained smiling. His brow was unfurrowed and he looked years younger.

"It's hardly a question of sides, is it, sir?" he answered. "We came here for scientific investigation and have received a friendly hand from these people. In the continuation of studies on Helena I have found a life's work and I shall continue to study with the help of my new friends, but this surely does not imply any differences between us."

Before Murray could answer the door opened to admit the other two Earth-men, accompanied by a guard of six armed Helenian soldiers. The leader of these saluted by laying his right arm across his chest, and asked the professor for orders. Again Eversley translated without being asked.

"He is asking," he said to Murray, "whether you will take responsibility for these men?"

Murray nodded and the professor dismissed the guard with a word. Ellison looked curiously at his fellow scientist.

"Talking Helenian, wearing their clothes—— What are you up to?" he asked.

"More to the point to ask what you've been up to I think?" countered Eversley coolly. "What's this story about you people trying to force your way into a power station?"

"We didn't try to force our way in," snapped the big man irritably. "We heard large generators running and looked in to see what the primary power was. Then these little fellows came poking guns at us and chattering. We couldn't understand them so we pointed inside to show we wanted to see. Then they got tough and fired bullets past our ears till we got outside altogether."

The professor intervened quietly. He did not seem to be put out by the incident.

"You do not understand," he said. "You were not stopped from seeing the station, but from the risk of hurt. One moment I will try to explain to your friend." He turned to Eversley and the two of them talked for a few minutes, wrestling with new words and meanings. The others watching saw a light of comprehension dawn on the scientist's face, but when he turned back to Murray his face was troubled.

"I don't like to make this public," he said slowly with a long stare at Ellison, "but I suppose you'll have to know sometime. The prime heater in all their power-stations is an atomic pile. They are not secretive about it and they only stopped these men from entering the radio-active danger zone."

At these words the faces of Ellison and Keller lit up with interest.

"Atomic piles," murmured Ellison softly. "Uranium or something like it. This is what we came for."

"Perhaps you did," said Murray, so sharply that they all jumped. "But the expedition as a whole came for exploration not exploitation and that is what we are going to do. Our hosts here will probably tell us all we need to know through Dr. Eversley. We will continue to explore the planet, not the power-houses."

Ellison rounded on him boldly.

"Really, Captain Murray. I don't think the men who backed this adventure financially would agree with you in that approach. If I remember correctly there was a demand for concrete returns for the outlay involved and that demand was met by your chairman, Lord Edel."

Murray shook his leonine head.

"You all undertook to come under my command throughout the trip," he insisted firmly. "I will decide

the priorities of exploration. That is all on that subject."

He rose from the table and strolled across to the window that looked out on to the mossy lawns. How much had changed in one day! It seemed like weeks. Eversley had gone wild over his academic interests, Ellison and Keller over their commercial possibilities. What could happen next was anyone's guess. He was fairly sure that all their talk had been recorded as on the previous occasions, and it might well be that their so far innocent and friendly hosts would realise that they were regarded by some at least of the visitors as objects for exploitation. Then the friendliness would not last. He turned to find Bill Taylor standing beside him.

"What about borrowing a couple of the gas-bags and doing a bit of surveying to relieve the tension?" suggested the pilot in a quiet voice. "I'm sure Doc Eversley could get his pal to lend us ships and crews. If we get Pat busy photographing and Ellison helping him as they did on the spaceship, all will be forgotten quite soon."

"That's an idea, Bill," agreed Murray. "But I can't go till I've decided what to do about Angus and his crew on the ship. The helicopter's radio was barely reaching them this afternoon and I'll have to ask for some technical assistance from one of the broadcasting stations to establish proper contact. Still we could send off Pat and Ellison and Joe together with definite instructions to map a certain area. I shall want Tony to stand by to fly up for Angus and Co. if we decide to bring them down. Look, Bill, for the sake of prestige I don't want to risk a refusal, but you can have a go. Just ask Eversley what he thinks of the chances of getting an airship."

Bill took the first opportunity of asking, not Eversley, but the Helenian professor direct. The man was pleased

to be approached by another member of the party and enjoyed using his newly acquired English. He assured Bill that he could easily arrange for the use of the smaller balloons for exploration parties, but said that the bigger rigid ships were owned by what he called the militia, and were not available to civilians. This struck Bill as a very easy way of preserving law and order, by simply restricting the use of the most efficient means of transport to the enforcers of the law, so he said so and the resultant discussion on the broader aspects of the subject occupied all the party the rest of the day.

They all slept well on eighteen-inch deep air-sprung divans in simply but comfortably furnished rooms, and at breakfast next morning Murray, without prior discussion, issued his orders for the day.

Devine, Ellison and Keller were to go off in a borrowed balloon to map the river. A light airship, ideal for the photographer, with a crew of two was willingly provided by the Helenian professor. Murray himself, with Stan Miller were going to the nearest broadcasting station to arrange a beam transmission to the ship. Tony was to stand by the helicopter and, for the sake of company, Bill would remain with him while they both put in some overdue maintenance on that hard-worked craft. There were no questions asked after the reading of the orders, so the party broke up immediately after breakfast.

The balloon party stayed away all day but the others met again at lunch time and found Dr. Eversley in a state of great excitement.

"I saw a global map of this planet to-day," he cried, as soon as he met Murray. "It is in effect two separate worlds and, so far as is known, they've had no contact for generations."

"You mean a political division?" questioned Murray. "Under two governments?"

"Maybe. We don't even know that. I saw that the globe was completely mapped as to coastline but contained no detail except in the northern temperate zone, so I asked why. They said no one would be fool enough to live in the cold arctic where there was nothing but snow anyway, nor in the broiling tropics which were a solid mass of impenetrable jungle.

"Then I asked what about the southern temperate zone. They said they knew all about that from their history books. The zone was inhabited by some more or less civilised people. But, since no one travels on Helena for the sake of travelling, they have no ocean-going ships and only the slow gas-bag aircraft, the southern hemisphere has not been visited for about a hundred years."

"These people are interested in knowledge for its own sake and they jumped at my suggestion that we should explore the other half of the world for them. Under their constitution they cannot order any man to accompany us, though we may appeal for volunteer crews if we like. They will, however, lend us fast dirigibles and teach us how to fly them and afford all the technical assistance we need. What about it, Captain, shall we go?"

"Let's go, Skipper," said Bill Taylor quickly, before Murray could answer. "Tony and I could learn to fly those airships quickly enough, Stan could build the ship's radio into one of them and we could be a safe and self-contained exploration unit in a few days."

"I don't know about the few days, Bill," answered Murray, smiling at Bill's eagerness. "We shall have to collect John Angus and the others from the ship as well as the radio and Pat's big camera. We'll have to send one of the airships up to the arctic first for that."

"Okay, that's fine," came back Bill. "And while they're gone, you and me with Doc Eversley here will

carry out a long-range reconnaissance southwards in the other craft. Then we'll know what we're up against, how much fuel we'll need and that sort of thing."

Murray looked thoughtful.

"It sounds all right," he admitted, "but we'll see what the others say first. Meanwhile, Doctor, we will undertake the exploration if you can arrange for the training of our pilots and the loan of two of the military-type craft. Please go ahead."

"That will be okay," said Eversley. "The balloon party won't be back till sundown but the pilots can start this afternoon if they like."

Bill and Tony jumped at the idea, and immediately after the meal they rushed across to the flying field to try out the airships. They found the handling of the craft simplicity itself except for the tricky part of the grapnel landings. The twin engines consisted of a pair of rocket tubes each, so arranged that while one tube was discharging the other was automatically being recharged with a soft paste-like fuel. "Making your rockets while you don't wait" was how Bill described it. As they had surmised from their earlier flight, there was no throttle control—the engines were either thrusting or dead, half power could be used, however, by running on one engine at a time.

Bill and Tony amazed the easy-going Helenian flyers by grasping the mechanical requirements of airship flight in less than an hour. Tony, the showman, gave something of an aerobatic display, rolling his ship in a full-bore dive to test the toughness of the construction. Then, when they came down the Earth-men created a furore by stripping one of the engines to pieces to see what made it tick. The relief of the Helenian engineers when the reassembled engine ran again perfectly was only equalled, as Bill admitted later, by that of Tony and himself.

Rather to Murray's surprise everybody was keen on the new idea and Bill's proposal was adopted without opposition. The Captain himself was not averse to the comparative holiday for him, of doing some straight navigation with his trusted pilot Bill, and the others for their various reasons looked forward to going back to the ship, collecting more equipment and bringing the whole crew together again. Dr. Eversley announced that one airship was ready immediately but the other would take another day to prepare, and, as the reconnaissance ship would have the longer journey to undertake and the others would have to wait for them to return anyway, Murray decided to start off southwards next morning, leaving Tony to lift the rest of the team northwards when their craft was ready.

Next morning Murray and Eversley, with Bill at the controls, took off for the South. They had food for a week and over half their load space was full of fuel-paste, enough for twelve thousand miles at full speed.

As the mooring ropes were cast off the craft rose smoothly into the air and Bill started the engines. He took her up to three thousand feet, a nice height for seeing the ground, and set course South-East till he reached the coast, then he turned due South and carried on at an airspeed of eighty-five miles an hour. Dr. Eversley had brought some Helenian maps and he logged their journey on these against Murray's dead reckoning.

They flew steadily southwards for five hours, Bill at the controls humming happily to himself. He found that the biggest difference between handling the airship and a normal plane was that he had to be continuously trimming ship, mostly to keep her down. He was surprised that a people so mentally lazy as he had found the Helenians to be had not devised an automatic control for this purpose, but Eversley pointed out that this would be a com-

plication and the Helenians had a passion for mechanical simplicity.

The country below them was mainly open, although there was a fair amount of woodland. The flyers could see groups of buildings here and there, always set on rivers or canals, but nothing of any size comparable to the city they had left came in view. The air was appreciably warmer after five hours flying and the earth below was taking on brighter colourings reminiscent of the Mediterranean on Earth. Murray ordered Bill to fly lower to get a closer look and he dived the craft to three hundred feet.

Absorbed in their examination of the ground, none of them noticed the approach of another airship of the same type as their own which had caught up with them as they dived and circled, till Bill tried to get up again and found the other pilot crowding him down. Unable to rise and not liking to manoeuvre so close to the ground Bill turned towards the sea a couple of miles away, but the other ship stayed over his nose. Eversley tried to operate the Helenian radio telephone, which was permanently switched on to receive in flight and was flashing a call sign on a little green lamp over the door of the control room, but he could not make it work to pick up the call.

Suddenly Murray shouted:

"Look out, Bill. They're pointing a gun of some sort at your cabin. Cut your engines and drop anchor."

"I can't do both," called back Bill. "If I cut engines she'll rise. Hold tight, I'm going down."

He put the ship's nose down and reached for the lever that would drop the grapnels. The commander of the other craft saw Bill's dive but did not wait to see the cables run out. The little mortar-like weapon on his ship fired. There was a splintering crash as the whole of the side of Bill's cabin came inwards under a charge of some-

thing like grapeshot. Bill felt a sharp pain in his side and sagged forward across the controls, pushing the ship's nose still further down. Both engines were still full on, and the ship was racing down just at the place where the woodlands met the sea.

Eversley opened the window of the forward cabin and leaned out shouting at the other ship, while Murray slithered down the sloping floor to reach Bill, but he was too late. Just as he reached the unconscious pilot, the nose of the airship plunged into the trees. They were the last trees on the edge of the beach. Another few yards would have saved them. The envelope ripped against the branches and then all movement stopped. The ribs of the ship exposed along the tree tops showed her to be a complete wreck, and inside lay three wounded men, unconscious on the floor of the crushed control car, suspended twenty feet above the ground.

The other ship circled round twice looking for signs of life. There were none, so she rose into the air and flew away to the North.

CHAPTER SEVEN

Just twenty-four hours after the departure of Murray's airship, the second ship was ready for her journey to the arctic. Tony Fenton was the pilot and, in view of the simplicity of the twin-rocket engines, he had said he did not need an engineer. The Helenians themselves divided all their jobs down to a degree that seemed unnecessary to the more versatile Earth-men. They were

carrying three Helenians as guests, the English-speaking professor who was Eversley's friend and two technical experts who wanted to examine the Verron ship. Without anyone quite appreciating how or why the dominating Dr. Ellison assumed command nobody bothered to question him.

Tony took off in good style and set course to take them up the coast as they had come in. They passed over their first and second camps on the way back and were getting tired already of looking at the same bit of slow-moving scenery when the green call-light started flickering over the door of the control room. The Helenian professor went to take the call and they could see him through the transparent plastic partition talking quickly with much question and answer. When he came out his face was so grave that the Earth-men crowded round him.

"What is the matter?" asked Ellison gruffly.

The Helenian looked from one face to another before he managed to answer. Then he spoke in a low voice.

"I have received terrible news for you. There has been an accident. Through some oversight our militia in the central region were not informed that you had been given the loan of these ships, which, as you know, are used exclusively for military purposes.

"Your captain's ship was intercepted yesterday afternoon and, since they ignored all orders to stop and gave no recognition signals, they were shot down and crashed into the forest. A search party is being sent out, but the central militia observers say that the ship was a complete wreck and they saw no sign of survivors."

There was dead silence among the Earth-men when he had finished speaking. For a minute they were too stunned to react, then Pat, white-faced, staggered over to a seat, Joe Keller started swearing softly as he went

forward to pass on the news to Tony at the controls. Stan Miller looked at Ellison.

"We must carry on to the ship," he said quietly. "John Angus is in command now."

Ellison looked at him sharply. "I'm not sure that the responsibility can be handed over as easily as that," he said curtly. "We'll see." He turned and went into Tony's cabin. The professor looked at Stan sympathetically.

"I'm sorry for you," he said quietly. "I think you have many troubles."

Stan Miller almost smiled.

Four hours later they reached the spaceship. Angus had been warned of their coming by radio and he, with Frost and Dowler were standing on the snow ready to grab the grapnels and make fast to the lashing stakes of the ship. The winches drew her down till the car of the airship touched the snow and the crew jumped out. It took only one look at their faces to tell the waiting three that something serious was wrong and there and then Stan Miller poured out the news of the loss of Murray's craft.

"It appears that there is little hope," he concluded, "which means that you are in command now, John. What shall we do?"

"Firstly," answered Angus quietly, "we will get inside the ship. You people are not dressed for the arctic." He led the way into the Verron ship, where Ellison introduced him to the Helenians. Then they all sat down at the table in the mess and looked at each other. The Helenian professor spoke first.

"I am sorry, gentlemen, that we meet in such distressing circumstances, but I shall be pleased to offer any help I can, when you have decided what you want to do."

"Thank you, professor," said Angus. "We will need your help to carry out our mission here, especially since we have lost, not only our captain, but our only other competent navigator, Bill Taylor. I do not think we need change the immediate plan to transfer our equipment from here to your airship and return to the city. Then we will make fresh, and probably more limited, plans for further explorations."

"Pardon me, John," Dr. Ellison's voice was deliberately pacific, "I'm not sure that we are all agreed with you on this point. Is there any sense in trying to carry on the whole of the original mission in the light of this loss? I feel we could not do much of a job anyway and that we should get back to Earth immediately. We have plenty to report and there is no doubt that a fresh team will be sent out very soon better fitted than we to take on the job."

"Talk sense, Doc," cut in Stan Miller irritably. "We can't go till we've at least found the bodies of the others and definitely established that they are dead."

"Why not?" demanded Ellison. "The Helenian search parties will find the bodies but it might take them months. We could be home and back in that time. I suggest that we go home now and report. Then another spaceship and a fresh crew, including navigators, can come out to carry on the job Captain Murray started. Who agrees with me?"

"I do for one," said Bert Dowler quickly, "and I haven't even seen this new world of yours yet. I shall want to come back all right, but there's no doubt that the people who paid to send us here would agree with Doc Ellison's line. You know that, don't you, Joe?"

Joe Keller looked unhappy.

"Guess you're right," he said sadly. "I don't want

to leave like this, but if my old man had a say he'd order me back right now, sure enough."

"What about you, Pat?" asked Ellison.

"I think you're right, Doc," answered Pat, avoiding the eyes of Angus and Miller. "The big factor to my mind is the navigation. Not only can we not explore here very well without navigators, but the risk of the return flight through space gets greater the longer we wait. Tony's a good flyer but he doesn't know the stars by their first names and we've got to navigate back to Earth on Murray's plotted chart we made on the outward route and my photographs. The longer we wait the stranger the sky will look to us."

"That settles it," said Ellison, slapping his hand on the table. "All the arguments are in favour of leaving now. The only thing we need ask of you, professor, is your assurance that the bodies of our late comrades will be found and a full record of the circumstances kept for the next team to come over."

"I will undertake that," said the Helenian quietly.

"There is one other thing, professor," said John Angus suddenly. "I do not wish to leave with this ship. Will you offer me hospitality until, if ever, another ship arrives. My technical services will be at your disposal in the meantime."

Miller and Frost exchanged one of their glances on mutual understanding then, as usual, the radio man spoke for both of them.

"In that case, professor, please accept us too."

The Helenian did not look as surprised as might have been expected. He replied with obvious sincere feeling.

"You are more than welcome. We shall be happy to have you with us."

"What about the pilot?" asked Frost, speaking for the first time. "You can't go without him."

"That's just my trouble," said Tony frankly. "I wish like hell that all this argument hadn't happened, but now it has the company divided. If I refuse to fly, the people who want to go will be grounded but life will be hell for all of us. If I'm going to fly you back at all, I'd sooner do it now before the sky gets too strange. I wish you'd all come though, then we could all come back together."

"I'm not leaving till I've found the skipper," said Angus doggedly. And so it was left.

Angus, Miller and Frost transferred their personal kit and some minor stores to the airship, while the others got ready for the journey. Joe Keller took over the engines, with which he was already familiar. Dowler doubled on the radio switchboard, while Ellison and Devine shared the problems of navigation. Most of the rather inexperienced crew were nervous, but Ellison himself seemed to be full of bouncing confidence. Tony made several long runs over the snow, lifting the ship into the air and putting it down again just to get the feel of the controls. When he was ready he got out of the ship and came over to the three Earth-men who were staying behind. He shook hands with each of them and they noticed his white set face.

"I'm not at all sure that this little flip is coming off," he said quietly, "but I've got to face it sooner or later and it might as well be now. Goodbye and good luck. Remember me."

He went back to the ship, the belly hatch was shut, and a few seconds later the Verron II glided away over the snow to her take-off point.

In spite of Tony's professed nervousness he handled the take-off coolly enough. The propulsion motors roared full out as the ship gathered speed, the wings came out, she lifted easily, much lighter than when she left Earth,

and then the nose started to come up. All seemed to be going well when, long before the ship had reached the near-vertical position required, the rockets cut in. The ship leapt forward all right, but instead of going straight up she was travelling in a steep climb. Tony still had her under control, however, and the watchers saw the retractable wings come back smoothly just at the right speed. In a few seconds she was out of sight. Angus lowered his glasses.

"Well, we'll probably never know what happens to them," he said grimly, "but I wish them luck all the same." They climbed into the airship and cast off, one of the Helenian engineers rather nervously at the controls. He had a private power balloon, he explained, but had never handled a rigid ship before. However, they got back all right at nearly dawn next day and started enquiries into the arrangements for the search party. They found that the militia ship detailed for the job was leaving that evening so as to be on the spot at daybreak for the ground search. The three Earth-men asked permission to join the ship, and this was readily granted. They joined the ship that evening and slept aboard her as she sailed South.

They were awakened by the unsleeping English-speaking professor who told them that the wreck of the airship had been sighted, her exposed metal ribs clearly visible in the trees. They circled to pick out the nearest possible landing ground, a small clearing about half a mile along the shore, and dived down at it. As soon as she touched ground the Earth-men, accompanied by six Helenians, started off with ropes and hatchets along the beach.

As they approached the scene of the crash they saw a movement in the trees. It was a man in Helenian costume stumbling aimlessly through the woods. As

they neared him they saw that his smock was covered in blood and his right arm was hanging limply by his side. They were almost up to him before Stan Miller realised who it was.

"Eversley," he shouted. "Doc Eversley."

The stumbling figure turned towards the voice. His left eye was completely closed and stuck with congealed blood, the other was opened with obvious pain and effort. Stan Miller reached the injured man first and put an arm round him for support.

"The others, where are Murray and Bill?"

"In the ship . . . up tree . . . hurt . . . Bill . . . got shot up . . . get them down . . . badly hurt."

Eversley suddenly slumped in Miller's arms, right out. Two of the Helenians took him and laid him on a stretcher. Angus and Frost were already racing to the wreck, and Miller darted after them. They reached the scene of the wreck and saw the crumpled cabin twenty feet above the ground. Frost picked out his tree and he and Miller went up it like monkeys lifting and drawing each other up in turns. At the level of the cabin the rope was made fast and the end dropped to the ground. The professor and another Helenian who turned out to be a doctor clambered up it.

Miller scrambled across the tilted and buckled cabin floor to the control room. He saw the legs of Murray, as he lay, face downwards, his head forced half through the side of the cabin, and over him, Bill Taylor, jammed between his pilot's seat and the crushed instrument panel. Stan leaned through the doorway and looked anxiously into Bill's white face. The flyer opened his eyes.

"Hello, laddie," he said quietly but calmly. "About time someone turned up. Take it easy getting us out. My ribs are busted and the skipper's had his head bashed in. Be seeing you." And this remarkable young man

closed his eyes again and relapsed into complete unconsciousness.

The Helenian doctor supervised the extrication and lowering of the injured men. Neither regained consciousness during the process, but both were breathing steadily and seemed to be in no immediate danger. The Helenians were frankly amazed at the toughness of the Earth-men, and said quite positively that the militia's ship commander was in no way to blame for assuming that the flyers were dead, since no men had any right to survive such a crash. The casualties were flown back to the city on their stretchers and immediately transferred to hospital.

On the morning after their rescue all three of the injured men were able to receive visitors and talk about their experiences, except that Murray, who was suffering from severe concussion, could not remember a thing about the attack from the patrol ship and the subsequent crash itself. He was told what had happened to him but, on the advice of the doctor, no mention was made of the break-up of the party and the departure of the Verron II. It was quite useless, however, to try to keep that sort of thing from the skipper for long. That same afternoon Angus, sitting by the bedside of the apparently sleeping man, was startled to hear Murray speak quietly and naturally.

"Did the new crew take off in the ship all right, John?"

Angus jumped. He looked down at Murray's blue eyes looking calmly at him and realised that the Old Man knew what he was saying, without doubt. He nodded silently. A minute passed, then Murray spoke again, very quietly, almost to himself.

"Poor devils, they'll never make it."

Now that the skipper knew, the secret was out, so Angus went into the other ward where Bill Taylor and

Dr. Eversley lay in their beds talking with Arthur Frost. Miller was away rigging up a new radio receiver from parts taken from the ship. The two men took it very coolly, Eversley did not even seem very interested. Bill immediately started to talk about their future.

"If they get back all right, which isn't very likely," he said coldbloodedly, "we'll get another ship here within six months. If not, it may be years before the people on Earth try again. They don't even know that we have arrived here safely, let alone attempted to return. We might as well make up our minds to live here for good. What kind of jobs do you think the Helenians will give us, Doc?"

"No question about that," answered Eversley confidently. "Exploration parties for us. They were really keen on our doing this trip to the southern hemisphere. You and John had better get down to designing some faster ships for the job right away."

"Good enough," said Bill, satisfied. "We might make a start with a conversion of the helicopter to run on their rocket fuel, eh, John?"

"I'll look into the matter at once, Bill," answered Angus seriously.

They talked about technical matters for a while until they were interrupted by the appearance of Miller at the door of the ward. He did not come in but beckoned to Frost from the doorway. The electrician went over to him, and, after a whispered colloquy, they went away together.

Bill Taylor grinned after them.

"I bet that crazy radio kid has got another surprise in store for us," he said prophetically. "Probably made contact with the man in the Moon."

The radio operator had not exactly done that, but he

was getting an interesting pick-up, despite technical difficulties.

"You see I can't tie up my radio equipment with their voltages," he complained to Frost. "They are using AC mains but their instruments are calibrated to their own measurements and we have no common standards to translate on. Can you establish their mains pressures and make a transformer that will bring it into my useful range?"

"Nothing difficult about that," said the Sparks. "Let's have a go."

A couple of hours later Stan Miller was sitting at his efficiently working radio, with his current input dead right, and reception conditions perfect. He juggled with the dials for a while, sat perfectly still listening for a further minute, then handed his headphones over to the watching electrician. Frost put the phones on and listened. For a while he heard nothing, then faintly came a voice in English.

"Hello, Helena, Hello, Helena, Verron II calling, Verron II calling, Miller, Stan Miller, are you listening? Over."

It was faint but unmistakeably the voice of Bert Dowler.

Frost handed back the phones.

"Call him back, Stan," he said. "I'll get Angus."

The operator switched on his transmitter and called up the spaceship.

"Hello, Verron II, Miller calling, I am receiving you. Carry on." It was no good bothering about procedure overmuch in these circumstances.

"Hello, Miller, Hello, Miller," Dowler's voice was all excitement now. "We're in a jam. The engines have been running for forty-eight hours and they're red-hot. We're not getting anywhere as far as altitude is concerned

and we seem to be moving around the planet. Tony's worn out and given up. He's asleep in his chair, and Keller is keeping the ship straight but he can't fly her. Can you get Angus to give us some advice?"

Miller looked up to see Angus beside him, and passed on the request he had just received. The engineer looked grim as he heard the tale and pictured the tired, frightened men, helpless in the ship they could not fly.

"Tell them to cut the engines before they blow up," he said gruffly. "They won't fall out of the sky all that quickly. Keller knows how to do that."

The message was passed on and acknowledged gratefully. Angus continued:

"We can't do any more without the pilots. When Fenton comes round tell him to bring the ship on to an even keel with his gyros and call us up again. I'll get Bill Taylor to give him flying instructions. The ship is swinging round the planet like a spare moon now and she won't fall fast if at all so there's no hurry."

Miller sent this off and arranged with Dowler that someone would send out a contact call every hour. They synchronised watches and waited for Tony Fenton to come round. Angus reported to the others what had been done and Eversley passed on the momentous news to the Helenian professor. The Helenians showed considerable helpfulness and efficiency in coping with the situation. A landline was run from Miller's set to Bill's bed in the hospital so that he could transmit his flying instructions direct, and an airship laid on, complete with salvage crew, to meet the Verron ship at the snow field as soon as her time of landing could be estimated.

Tony Fenton was completely exhausted after having been without real food or sleep for two days and nights. While he slept the ship circled away from the side of the

planet on which the radio set was operating and there was a gap of some hours before communication was established again. When the set picked up at last, Tony reported direct to Bill and explained his problems. He was well outside the effective atmosphere and the ship was only controllable by its thrust motors and gyros. The engines were decidedly unhappy after their rough treatment in trying to get away and a lot of fuel had been used.

Bill told him to put the ship's nose down and aim roughly at the North Pole of the planet. Using the engines in bursts would save more troubles there.

"It will take several hours, but don't try to rush it. When you reach atmosphere the indicators will light up. Cut the engines, wait till the speed drops to seven hundred and open the wings. Circle down gently till you can see the landing ground and we'll have an airship there to meet you. Okay, Tony?"

Tony suddenly thought of something. His voice became frantic with excitement.

"Hey, Bill," he shouted, "what are you doing talking to me? You're supposed to be dead. Where are you?"

"I ain't dead," called back Bill cheerfully. "None of us is—only bashed about a bit. And so will you be if you smash up my ship. See you later, feller."

CHAPTER EIGHT

Bill Taylor insisted on getting up and travelling with the airship to meet the returning Verron II. The Helenian doctor, who was privately of the opinion that the Earth-man was unkillable anyway, strapped up his patient's ribs with plaster and then literally washed his

hands of all further responsibility. Eversley remained with Murray at the hospital and showed no interest at all in the return of the spaceship or its crew. When Angus asked out of curiosity: "Don't you care about those fellows?" the scientist just shrugged and replied: "They did what they wanted."

Miller called up the ship before starting the journey and arranged to re-open contact from the airstrip six hours later. The radio man had worked wonders with his limited equipment, having first built a long-range set out of his portable, plus the bits and pieces he had collected from the ship, then dismantled the lot to transport it to the rendezvous. Together with his friend the electrician, he sat in the airship, building at his set for the third time in two days.

The flight to the snow field was uneventful. Two of the earthmen worked on the radio while Bill, who was beginning to pick up some Helenian technical words, showed Angus the working of the airship's rocket engines and discussed ways of stepping up the power and speed of the ship for exploration purposes. The Helenian engineer explained patiently that these ships were the fastest things on the planet already, and he could not understand why anyone should want to go faster than the tearing pace of eighty-five miles an hour. Bill found it surprisingly difficult to tell him why, and failed to convince the man at all.

Just after mid-day they reached the original camp on the snow field and grapnelled down on some of the mooring stakes left by the spaceship. Miller slung an aerial over the top of the gasbag and started to call up the ship on the short-wave set built during the flight. He got a response from Dowler, asked for Tony and then put Bill on to give the necessary instructions. Tony Fenton sounded worried and uncertain.

"Bill. We seem to be diving straight at the earth under gravity. The airspeed indicator has just cut in and is reading twelve-twenty which is O.K., but the skin friction is terrific and the temperature indicator is right up in the red."

"Don't worry yet, laddie," called Bill, "you've a couple of hundred miles to fall yet and that'll take a few minutes. Bring her nose up on the gyros till she's falling flat and give a couple of blasts on your side motors. That'll drop the speed a bit and when it comes down to seven hundred you can open the wings."

Tony turned back to his controls and the group on the ground waited for some minutes, Miller and Dowler exchanging call signs every minute to maintain contact. Then Angus, who had been sweeping the sky with his field glasses, suddenly shouted.

"There she is, due North. Wings open and all."

High up in the sky, barely visible with the naked eye, was the Verron II, heading straight towards them. It was evident that, having got back to the comparative familiarity of flying a ship in the air, Tony had recovered his confidence. He was coming fast but steadily towards the landing ground and in a few minutes he swung the ship in a wide circle over the heads of the watching group in the snow.

He circled twice to lose enough height to pick up his landing strip and then straightened out to make a dummy run. As he passed, five hundred feet above their heads, they could hear the usually smooth engines spluttering and gobbling roughly. Angus looked anxiously at Bill.

"Better warn him, Bill. If he opens up he may find nothing there."

Bill lifted his mouthpiece to call, but either Dowler had switched off or he was hanging on tight for the landing. There was no reply.

Tony made his last turn ten miles from the flag and started to put the ship down. He was a skilful and experienced pilot and had put in a lot of flying hours on fast fighters before specialising on rotor-planes, but it was against all his flying training and instincts to put a machine down at three hundred miles an hour, which was the Verron ship's minimum flying speed. Furthermore he was deadly tired and weak from lack of food and his nerves were strained to breaking point. He was even unsure of his own vision in the screen beside him. The leading edges of the landing runners were a bare twenty feet from the ground and the ship seemed to Tony to be rushing to a deadly crash. He couldn't face it this time. Muscles that seemed to work against his own will lifted the nose of the ship and banged the throttle open for another circuit. It was not his fault that the tired, overheated engines failed to respond.

The Verron II pancaked with a jarring crash, then, as she bounced the engines suddenly cut in at full-bore. The ship started to climb again, nose up and left wing low, but the tail of the skids just touched the ground and brought her down again with another frightful crash on to the ice. Inside her there was a rending noise as the heavy turntable in the roof of the control room tore adrift at the rear, swinging downwards and forwards with Devine half out of his cradle and hanging upside down. Ellison scrambled out of his cradle and dropped behind the pilot's chair, then stood there clinging as the ship bounced twice and tried to take off again impelled by the roaring engines.

Tony got the throttles shut and gave up trying to save the landing. It was a crash drop now anyway so he worked on training and instinct, switched off everything within reach and put the nose down. But even then fate had not finished with him. As the ship's nose hit the

ground again the swinging turntable came right away. With Devine still trapped, grasping vainly at the air, it fell right on the neck of Ellison, standing in the doorway of the cockpit behind Tony. As the nose of the ship ground into the ice at five miles a minute, the turntable, complete with the telescope, Devine and Ellison, crashed through the light bulkhead on to Tony's back. His face smashed forward into the splintering instrument panel, and he was out.

The ship finished up some four miles back along the runway from the watching salvage party, so they all scrambled back into the airship and took off, flying low and dragging their grapnels over the snow. The pilot, with unexpected determination for the easy-going Helenians, flew his ship straight across the crippled Veron II so that his grapnels would catch at the spaceship and give him a winching hold. Before the cabin had touched the snow the Earth-men leapt out and rushed over to open the belly hatch. Bill leading, they scrambled inside and up through the airlock into the control room. The place was a shambles.

Still in their cradles Joe Keller and Bert Dowler lay unconscious and bleeding, the latter half-covered by the remains of the radio panel that had torn itself free and fallen on his head. A trail of cables, torn metal and plastic insulating material dangled from the hole in the roof where the telescope mounting had been and the turntable itself, upside down, was jammed against the wreckage of the light forward bulkhead dividing the control room from the cockpit.

Bill, unable to shift the fallen turntable, started to tear out the sheet metal panels of the bulkhead to make a hole, and forced his shoulders through. Tough as he was the scene inside the cockpit made him feel physically sick. In a crouching position behind the pilot's seat was the

body of Dr. Ellison, his skull crushed and brains and blood oozing along the floor. Devine, still strapped in, hung upside down with his back broken. He was still twitching, but quite dead. In front of these bodies, in the pilot's seat was Tony Fenton, whose face had completely disappeared into the shattered fascia board.

Drawing his head back Bill warned the others what to expect.

"Ghastly mess," he said, "Devine and Ellison have had it. I'm going in to see about Tony."

He widened the hole a bit and wriggled himself through. Instead of trying to lift the unconscious pilot directly, he pulled away the pieces of the instrument panel bit by bit first. No one would ever make a joke about Tony's handsome face again. There was not an inch of whole skin on it, nose broken, front teeth gone and a deep gash across the forehead from side to side. He was still breathing though, and Bill whipped out a dressing and covered the whole of the pilot's face except his mouth. Then he called to the others to make the hole in the bulkhead still larger so that Tony could be handed through.

Back in the control room the Helenian doctor was examining Bert Dowler, who lay flat, his eyes wide open but his body rigid, unable to move. The doctor stood up shaking his head and Bert saw the gesture. His lips moved with an obvious effort of will and John Angus bent quickly to catch the words. Dowler fixed his eyes on the engineer's face.

"Sorry," he whispered, "didn't want to break up the party. Is Captain Murray all right?"

Angus nodded, unable to speak, and Dowler smiled slightly, then: "Good. Tell him I was sorry. Good-bye."

His eyes closed. The breathing went on faintly for half a minute and then he was gone. The earthmen turned away, not looking at each other's faces, and saw that the doctor had extricated Joe Keller from his cradle. Joe had been knocked out at the first bump of the ship and had then been thrown about in his cradle like a pea in a whistle, but apart from being bruised all over he was almost uninjured. When he opened his eyes to see Angus bending over him, he smiled quite normally.

"Sorry about your engines, John. Blame Ellison for throwing in the rockets much too early. I had to keep the motors running in atmosphere for hours and hours."

Joe, of course, did not know what had happened to Ellison when he spoke, but he saw from the faces of the men around him that something was seriously wrong. He pushed the little doctor aside and sat up.

"What happened?" he asked, looking around at the wrecked control room, "Ellison, Pat?"

"They've had it, Joe," said Bill. "Bert Dowler too. I don't know about Tony, but he's still breathing."

Joe was helped to his feet and lowered through the hatch. Tony had already been carried over to the airship and put inside on a stretcher, while the Helenian salvage squad would bring out the bodies of the three dead earthmen. The doctor had another look at Tony and reported to the professor, who came over smiling.

"Your friend the pilot," he said, "he is not badly hurt except for his face. He is not even unconscious from his hurts, but he is very much asleep — very tired."

It took the salvage men an hour to get the bodies out, during which time Angus, unable to keep still, made a rough examination of the Verron ship to check on the damage. He found that, in spite of the mess, the main structure of the craft was still sound. The lower part of the nose was well pushed in but the skin was not

cracked. The sled runners were splayed and slightly buckled and there was a hole in the roof where the telescope had been, but on the whole the damage was superficial and, given tools and materials, easily repairable on site. He made a few notes of the requirements and went back to the airship.

No one spoke much on the way back to the city where they arrived in the evening, reported to Murray and went to bed. The next morning arrangements were made for the funeral by cremation, according to the Helenian custom, of the dead men. The earthmen were surprised at the interest and sympathy shown to them by the Helenians, both those they knew and complete strangers. The people of the Planet took the view that natural death was an ordinary thing that would happen to everyone sooner or later and was not to be made an occasion for fuss. But violent death was rare and terrible to them and they sympathised accordingly. After the ceremony the professor insisted on their drinking some of the strong stimulant liquor that had helped Eversley to learn the language so quickly.

In the hospital Murray was allowed out of bed for the first time that afternoon and Dr. Eversley was discharged with his arm in a sling and a beautiful black eye. Tony, on waking up, had not even had a headache, but he was very much cut up about the crash and inclined, quite needlessly, to blame himself for what had happened. His face was hidden behind a mask of dressings and the subject of his facial injuries was not mentioned by anyone. As soon as they were all fit to attend Murray called a meeting of the survivors.

"We have to decide," he began, "what we are going to try to do. Our Helenian friends have made it quite clear that we are welcome to remain here, and that they will co-operate with us to the limit in further scientific

exploration. If we do this, however, we are abandoning the objective which brought us here. Our knowledge will be useless to humanity on earth because they will never know what happened to us. Remember that to them we just disappeared into space. They may send another ship out, but I doubt if that will happen for some years at least."

"John Angus tells me that the ship does not appear to be badly damaged, that he thinks he can repair it in a month or so, and that it should be possible to devise a method of using Helenian rockets, although lower in power than our own, to make another take-off. It will need all hands to work to do this job and that means living on the ice field instead of the comforts of the city, and it means no more long-range exploration for this trip."

"Excuse me, Captain," broke in Dr. Eversley, "are we safe in taking so much for granted? It is true that the Helenians have made us welcome to stay and will be pleased to co-operate with us on scientific discovery, but will they also co-operate with us on our plans for departure?"

"Why shouldn't they?" asked Murray in surprise.

"Would you advise them to? I wouldn't," answered Eversley frankly, "they've seen this team break up and they know it wasn't just because some of us were nice fellows and some not. It was because we had different loyalties and objectives. The people who put their money into this venture wanted results, didn't they? If we go back and report why Ellison and Devine were arrested a few days ago, the next spaceship that visits Helena from earth will have men with weapons coming to take home the uranium. Why should they risk it? You tell me."

"I asked you once before whose side you were on. Have you advised them against letting us go?"

"And I told you before that it is hardly a question of sides," replied the scientist unperturbed. "They haven't asked me yet, but if they do I shall put it to them just as I've put it to you now."

Murray made a bold decision.

"We can't get any further until this point is settled," he said. "Would you ask the professor to join us so that we may tell him of the problem."

Eversley went out still smiling, to return quite quickly with the Helenian professor and another man whom he introduced as "the nearest thing these people have got to a politician." They exchanged greetings and sat down. Murray asked them bluntly if they had any qualms about letting the earthmen go back and then asked Eversley to pose his problem, which he did in almost the same words as he had used in their own discussion. The Helenians did not seem surprised or put out by the question. After a very short colloquy the professor answered in English.

"This matter has, of course, been discussed seriously and at length in our councils," he said blandly, a statement that caused Bill Taylor to laugh immoderately, "and we have come to the conclusion that we have more to gain from contact with your scientists and explorers than we risk losing to your men of business. It is true that we have had no experience of fighting for several hundred years, but we feel that the chances of your soldiers mounting a successful offensive by spaceship at this range are negligible, and that in any case it would pay both sides better to co-operate and trade rather than fight. We will be happy to work with you here or help you to return, whichever you wish."

This intelligent and balanced statement made both Murray and Eversley feel rather ashamed. They might

have plenty to teach the Helenians, but not in the sphere of politics obviously. The two Helenians, having been assured that their answer covered the problem before the meeting, withdrew and the discussion went on.

"Okay then," said Murray, briskly, "let's decide now. Who's for going back as soon as we can get the ship into condition? I'll take you one at a time. Bill?"

* "Sure, I'll go," said Taylor, without hesitation. "I'll be coming back though, as soon as maybe to have a look at that southern hemisphere."

"Right. Joe?"

"Same goes for me. I want to come back without any strings next time."

"Stan and Arthur?" Murray smiled as he coupled the names of the inseparables.

"Permanent flying crew us," answered Stan Miller. "Every trip from now on."

"I'm with you, of course," said Angus, not waiting for the question. Murray smiled again.

"What about you, Tony?"

Instead of replying directly the pilot turned his masked face towards Eversley.

"You're not going back, are you, Doc?" he asked quietly.

The scientist looked rather surprised but not in the least embarrassed by the question.

"As a matter of fact you're right. But what gave you the idea anyway?"

"Only that you're at peace," said Tony with extraordinary penetration. "You're happier than you've ever been in your life, and you don't want to risk losing it. I don't know if you're right yet, but if you'll put up with me I'd like to stay with you, learn the language like you and settle in. Maybe fly you around places and so on."

"I'll be happy to have you," said Eversley simply.

"Are you sure about this step, Tony?" asked Murray, looking worried. "Isn't this just a rebound from the crash and your injuries?"

"To some extent that's true, sir," said Tony. "Ever since I was a school-kid I've been getting mad at people who made cracks about my girlish looks, and I would certainly be self-conscious about meeting old friends pretending not to notice my scars. But that's not the most important thing. It's that crash and the three men killed. I know there was every excuse for it and I don't blame myself for bad flying in the circumstances, but I didn't want to take that ship up — I said so to these boys before the take-off. If I'd held out things might have been different. I can't get away from it so I must stay with it. Perhaps when you come back again I'll be all right — I don't know. But now I want to stay here with Doc Eversley. Will you leave me the heli-kite please? That's all I need."

"We weren't going to cart that thing back to earth anyway. You can have it. Right then, men. We start preparing the ship for the return journey with a crew of six. All spare technical equipment will be removed from the ship and brought here in the care of Tony Fenton. We want to be as light as possible for this take-off. Any questions?"

"Just one, Captain," said Eversley, "will you leave behind the astronomical telescope on the turntable and the movie camera, as a gift to the Helenians? They will be of real scientific value and much appreciated here."

Of course, Murray agreed and the meeting broke up at that point. The Captain was surprised, however, when he went first out of the room to be met by the Helenian professor, who shook him warmly by the hand and thanked him with unusual excitement and genuine grati-

tude for his generous gift to Helenian science, the astronomical telescope and cine-camera

Murray just stopped himself from saying, "How the hell did you know about it," acknowledged the thanks, and went his way. He supposed it didn't matter much, but it was very difficult to get used to the idea that all one's conversations were being recorded!

CHAPTER NINE

Once the decision had been made to return to earth, all the crew worked with common purpose in preparing for the trip. The Helenians placed an airship at their disposal for a series of flights back and forth from the city to the ice field, and Tony, although still bandaged, insisted on piloting the craft. Angus took full charge of the repair and preparation of the ship, so Murray, working in close, and to him surprising, collaboration with Dr. Eversley, made up a complete report of what they had learned about the Planet and its people.

Some very interesting material came to light in the course of this task, which explained quite a few of the hitherto puzzling things about the Helenian way of living. It appeared that the major factor making for difference between everyday life on the Sister Planets was the fact that Helena had large natural supplies of Helium gas easily accessible all over her temperate northern zone. At a very early stage in their development the people had learned to make use of this as a lifting agent. When, a few thousand years later, they also discovered the use of rockets, as did the Chinese on Earth five thousand years back, they naturally coupled the two discoveries and produced rocket-propelled airships as a normal means of conveyance overland.

The rocket engines also operated the river craft that carried goods, and there were no power-driven surface vehicles. The roads that the earthmen had seen on the south side of the river when they first arrived, laid out fanwise from the docks were, in fact, roads for trucks pulled by cables from the docks to the factories in the area. Heavy industry, such as there was of it, was concentrated on the river estuaries so that water transport alone was needed. Lighter industry was dotted about the country outside the cities and served by the canals.

In the course of these sessions Murray tried not to draw out Eversley as to his reasons for the decision to stay, and his personal plans on Helena. The scientist was working hard at getting material and was keen that his work should be read and appreciated on earth, but he remained serenely immovable in his intentions.

"But what about private life, friends, marriage and that sort of thing?" Murray asked one day.

Eversley smiled with genuine amusement at this.

"That from you, Captain, is damn' funny," he said rather mockingly. "You do without either most of your time. However, I have friends here already and I shall make more I know. As for marriage, if the occasion arises, well, I'm not such a giant as the rest of you earthmen. I could mate up with one of the taller Helenian women without incongruity."

"They have the institution of marriage then? You've checked up on that?"

"Oh, yes! It's quite simple, like everything else in this delightful place. Marriage is by mutual consent and a simple form of registration. Divorce is also by mutual consent unless there are children. One of their worries here is the low birthrate. The last three generations have barely reproduced themselves. So the State does everything possible to encourage family life, special

allowances, housing arrangements and honour and glory for mothers. If after three years a marriage is still childless the couple usually part and try again. No one forces them, but it is the custom of the country."

"And you like it?" asked Murray again.

"I like it very much," answered Eversley.

Work on the ship proceeded more quickly than had been hoped. Everything was being done on the assumption that another trip would be made in a few months time, so Angus had no conscience about stripping the ship to build up the base camp for future use. The unwanted cradles were taken out and left for use as sleds. Miller's now semi-portable radio was built into the little shed on the ice and coupled to the searchlight generator. The turntable with the mirrors, telescope and all the photographic equipment was sent back to the city as a present to the College of Science, and some of the stores, spares and tools were also landed. Altogether the load was only one third of that the ship had lifted from the earth on the outward trip, which saved quite a lot of worry about the strength of the Helenian rocket charges.

The biggest risk was over the engines, which had received a terrible cooking and were in bad shape. After much consultation and computation with Bill, Angus decided to scrap the four worst of the propulsion units altogether and fit the almost unused side-thrust motors in their place. The thrusters in turn were replaced by four Helenian rocket engines which, while not powerful enough for propulsion were adequate for steering control. They also had the additional advantage that they would save fuel, of which there was little enough to spare.

A group of Helenian scientists took the opportunity of looking over the Verron ship while the work was going on and expressed considerable interest in the whole project. Murray asked, through Eversley, if any of them

would like to travel with the ship and visit earth. The invitation created no excitement at all, a thing which puzzled the earthmen a lot, so Murray asked if they were not interested in the earth and its people.

"Of course," answered the leader of the Helenian team, smiling the inevitable smile, "we are very interested indeed, but we differ from you in our scales of values. We devote our interests to our lives—you devote your lives to your interests."

"And that," remarked Eversley as he translated, "seems to be the answer to end all questions."

Finally the day came when all was ready. Bill took the ship up and down twice to see that everything was thoroughly tested, with Tony beside him in the co-pilot's seat "to test his nerves" so he said. The hospital surgeons had made a very good job of the pilot's face and he was less scarred than he had feared and quite recognisable. But this would not make him change his mind about returning to earth.

"I feel I've got a job here," he insisted, "I'll study the language, flying conditions and the problems of the next exploration trip. Don't you worry about me. You've got more to worry about for yourselves."

When all was ready the whole crew returned to the city for a rest and a hot bath as well as a semi-public dinner in their honour, given by the College of Science in acknowledgement of the gift of the telescope.

Next morning the Verron II took off. It was a quite ordinary event by now. Eversley, Tony Fenton and the Helenian professor shook hands with the crew before they emplaned and waved as the ship taxied away. It was a scene repeated at every airport on earth every day. Bill made the usual tests of controls and motors, and then the propulsion engines roared and the ship slid away over the snow. Light in weight by now, she lifted much more

easily than before and was still climbing standing on her tail when the rocket drive was put in. A few moments later she was out of sight.

Tony turned to his companion.

"Do you think they'll come back?" he asked.

"Yes, I think so," said Eversley. "Why do you ask? Are you wishing you'd gone with them?"

"No, not that," answered Tony, "but I was rather wishing they'd stayed here."

The Verron ship flew perfectly in her new form and the rockets proved more than adequate for their needs, carrying them up nearly three hundred miles before the motors had to take over. After the usual thirty hours flying they cleared the gravity sphere and set course for the earth's orbit. With the smaller crew they now had there was less free time as every man was either on watch or eating or sleeping, but they found this no great hardship and it certainly seemed to make the time pass more quickly in space. Murray himself acted as relief pilot as well as navigating and the others shared watches at each other's jobs.

The first sight of Earth gave them a queer feeling. It looked so uncannily like Helena as they had first seen her in the visual screen. But as they watched the sphere grow and grow on the screen, the other planet seemed to get further and further away in their minds.

On entering atmosphere Bill tried out a new technique of turning the ship on its side and using his blast motors to reduce speed quickly and so avoid the sharp rise in skin temperatures that had been a worry twice before. The idea came off mechanically and the speed dropped quite sharply, but the crew took a dim view of being hung on one wall of the craft by the double effect of gravity and the full blast of an Helenian twin-rocket motor.

Stan Miller had been putting out a call to the Green-

land base to warn them of the ship's arrival for several hours, but had not been able to pick up any response until suddenly, when Bill was already circling on the three-hour trip down to normal flying levels, he started receiving a message from someone else to the same station.

"Can you identify the call?" a voice was saying, "frankly I don't believe it."

"Why not?" asked the Greenland observer, "they're bound to call up and say they are coming as soon as there's a possible chance of contact. The fact that they are not answering may only mean that they are not receiving yet."

Stan beckoned to Murray to listen in.

"People who have just returned from the first flight ever made to another Planet don't just call up and say: 'Hello, I'm coming back now'," said the voice, "they're excited. They've got something too big to hold in. They'll want to tell the world, not just you."

Murray looked at the radio operator's amused grin and around at his casual-looking crew. Then he picked up the microphone.

"Lord Edel," he called, "Murray calling from the Verron II. We shall be landing at the Greenland base in one hundred and forty minutes from now. Out."

CHAPTER TEN

The babble of talk at the lunch-table subsided as the chairman rose and tapped his glass with his spoon. There was an air of expectancy in the room, for all present knew that they were about to hear something that had never been heard before. The chairman, Lord Edel,

looked keenly at the faces before him. He waited long enough for the silence to reach a point of near tension, and then spoke.

"Gentlemen," his voice was quiet, but very clear, "we are here to-day to welcome home and give honour to the captain and crew of a ship that has made a voyage more daring, more hazardous and more important in the possibilities it opens up, than any before made in the history of the world."

There was a murmur of agreement and appreciation round the table, while the men of the crew referred to looked coyly at their cigarette ends. The chairman continued:

"You are, I think, all aware that I am using exactly the same phrases as I used when we lunched here before, after the first experimental flight in space. There is a reason for this, a very cogent reason. These things go on, each flight being a part of something greater. Although it is true, as I have just said, that the occasion to-day is the celebration of the greatest voyage in the history of the world, it is not the first such voyage nor can it be the last."

There was a chorus of "Hear, hear," from the table, and it was noticeable that this came loudest from the side where the members of the crew sat in a row. The other guests looked across at them curiously — Men apart, differing from their fellows by the things they had seen and done. Lord Edel smiled towards them.

"Captain Murray and his crew," he went on, "have flown through space to another world. They have landed on it, lived on it, and three of them have died on it. They have met the people of this other world, lived and talked with them and two of our men have stayed there and are even now studying and working towards the success of the next flight."

"We must give honour too to Professor Verron, who designed and built the two ships that fly through space, and to Professor Dziewinski whose discovery of the planet has put him at the head of the astronomers of the world. I should also like to thank the representatives of the commercial organisations whose foresight and financial help alone made these flights possible."

"And now, perhaps, you would prefer to hear a few words, I'm afraid none of them will give you more, from these men themselves. Captain Murray."

Murray rose amid a storm of clapping in which his own crew joined heartily. He looked a bit older and whiter than he had done when he addressed the same gathering five months before, and more shaggy-bear-like than ever. He looked first at his crew and started off by paying tribute to their loyalty and efficiency.

"They worked as a team and did all they were called upon to do, and more, in the face of danger, injury and death. No captain could have been better served than I, although as volunteers there was no reason why they should take my orders other than their own fine self-discipline."

"You're a pretty good reason yourself, skipper," called Bill Taylor.

There was another affecting moment when Professor Dziewinski was called on to speak.

"I have nothing to say," he said softly, "except, thank you. I have everything a man wants in life now." And he sat down quickly amid understanding murmurs from the listeners.

Professor Verron then told in general terms of the design and performance of the spaceship and referred to the Helenian rocket engines that had been brought back as "Britain's new wonder of the adjoining world" amid general laughter. He said that the original backers of

the flights had agreed, in the cause of science, to the preservation of the Verron II in a museum, and thanked Captain Murray and, in particular, John Angus for the good handling of the ship's equipment and for the valuable data brought back from the two flights.

The chairman then invited the businessmen to have a say.

"I would particularly like to know," he said, with a barely perceptible touch of sarcasm in his voice, "if Mr. Kalaman feels that World Investments Incorporated has had its money's worth out of this expedition."

Kalaman smiled broadly. He appreciated the thrust but was too thick-skinned to be hurt by it.

"Sure, I'm quite happy," he answered. "These boys have done well for me. I've financed half-a-dozen paying propositions already since they landed, from Verron ship toys for next Christmas to a new film called 'The Passionate Planet'."

There was a gale of laughter in which everyone joined except Professor Dziewinski. Lord Edel looked enquiringly at the other businessmen to see if anyone wanted to say anything else. Mr. Keller rose.

"Whatever kind of a super-man Captain Murray may be as an explorer," he said, "he's certainly a magician with men. My son, Joe, who is not sitting here beside me because he is sitting across the table there with the crew where he belongs, has told me bluntly that all he wants to do for the rest of his life is follow Captain Murray."

This raised a laugh and Joe looked anxiously at Murray to see if his father's blatant breach of confidence was a source of embarrassment.

"Now Joe's got as much brains as his father," went on Keller senior modestly, "but he's never known what he wanted to do with them before. Now he's got a mis-

sion in life, and I want to say this. Among all the great scientific and technical discoveries that Captain Murray has brought back to the world, the fact that he is training and leading young men with the courage, initiative and discipline of this crew is not by any means the least of his gifts to the old country."

He sat down amid another storm of sincere approbation from the other listeners. Lord Edel rose again.

"Gentlemen, I am glad indeed to hear these tributes to Captain Murray and his men. I know the old bear doesn't like talking much, but this time I'm going to ask him to the toast of all of us. Gentlemen, fill your glasses and drink to The Flyers of Space."

The toast was drunk with enthusiasm and then Murray rose apparently to reply but he turned to Lord Edel.

"Not for the first time in your life I'm telling you you're wrong, Edel," he said without formality. "It is not for me to answer the toast to the crew. Instead I will call on their own spokesman to answer. Gentlemen, I call on the best pilot in two planets, Bill Taylor."

The dramatic introduction roused a roar of appreciation which was noticeably led by Bill's own fellow flyers. In the midst of this the young pilot got to his feet smiling.

"Thanks a lot, gentlemen, for all the nice things you've said about us, and thank you, skipper, for the pleasant sleigh ride. We of the crew have had a good time and everybody's happy, except John, who doesn't know how to be. The only question in the minds of any of us, and I know I'm speaking for every man of the crew, is 'Where do we go from here'? We'll leave this table a lot happier if we have some clues in that direction."

Bill paused a moment and felt the eyes of the other five flyers fixed on him anxiously. Murray had been more right than he knew in describing Bill as their spokesman. He continued in a more serious voice.

"There has been some talk, which presumably we are not supposed to know anything about, on the subject of giving us some kind of recognition of a pretty substantial nature for the work we have done.

"Well, whatever your likes and dislikes may be about giving and receiving presents, there's no doubt that the most sensible way is to ask the intended recipients what they want. We haven't been asked yet, but since I've got the floor I'll tell you what we want.

"Give us another Verron ship, please. *We want to go back to Helena.*"

THE END

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