

Summertime on Icarus

WHEN COLIN SHERRARD opened his eyes after the crash, he could not imagine where he was. He seemed to be lying, trapped in some kind of vehicle, on the summit of a rounded hill which sloped steeply away in all directions. Its surface was seared and blackened, as if a great fire had swept over it. Above him was a jet-black sky crowded with stars: one of them hung like a tiny, brilliant sun, low down on the horizon.

Could it be the sun? Was he so far from Earth? No—that was impossible. Some nagging memory told him that the sun was very close—hideously close—not so distant that it had shrunk to a star. And with that thought, full consciousness returned. Sherrard knew exactly where he was, and the knowledge was so terrible that he almost fainted again.

He was nearer to the sun than any man had ever been. His damaged space-pod—a miniature spaceship, only ten feet long—was lying on no hill, but the steeply-curving surface of a world only two miles in diameter. That brilliant star sinking swiftly in the west was the light of "Prometheus," the ship that had brought him here across so many millions of miles of space. She was hanging up there among the stars, wondering why his pod had not returned like a homing pigeon to its roost. In a few minutes she would have passed from sight, dropping below the horizon in her perpetual game of hide-and-seek with the sun.

That was a game that he had lost. He was still on the night side of the asteroid, in the cool safety of its shadow, but the short night would be ending soon. The four-hour day of Icarus was spinning him swiftly towards that dreadful dawn, when a sun thirty times larger than ever shone upon Earth would blast these rocks with fire. Sherrard knew all too well why everything around him was burned and blackened. Icarus was still a week from perihelion but the temperature at noon had already reached a thousand degrees Fahrenheit.

Though this was no time for humour, he suddenly remembered Captain McClellan's description of Icarus: "The

hottest piece of real estate in the solar system." The truth of that jest had been proved, only a few days before, by one of those simple and unscientific experiments that are so much more impressive than any number of graphs and instrument readings.

Just before daybreak, someone had propped a piece of wood on the summit of one of the tiny hills. Sherrard had been watching, from the safety of the night-side, when the first rays of the rising sun had touched the hilltop. When his eyes had adjusted to the sudden detonation of light, he saw that the wood was already beginning to blacken and char. Had there been an atmosphere here, the stick would have burst into flames; such was dawn upon Icarus.

Yet it had not been impossibly hot at the time of their first landing when they were passing the orbit of Venus five weeks ago. "Prometheus" had overtaken the asteroid as it was beginning its plunge towards the sun, had matched speed with the little world and had touched down upon its surface as lightly as a snowflake. (A snowflake on Icarus—that was quite a thought.) Then the scientists had fanned out across the fifteen square miles of jagged nickel-iron that covered most of the asteroid's surface, setting up their instruments and check points, collecting samples and making endless observations.

Everything had been carefully planned, years in advance, as part of the International Astrophysical Decade. Here was a unique opportunity for a research ship to get within a mere seventeen million miles of the sun, protected from its fury by a two-mile-thick shield of rock and iron. In the shadow of Icarus, the ship could ride safely round the central fire which warmed all the planets, and upon which the existence of all life depended. As the Prometheus of legend had brought the gift of fire to mankind, so the ship that bore his name would return to Earth with other unimagined secrets from the heavens.

There had been plenty of time to set up the instruments and make the surveys before "Prometheus" had to take off and seek the permanent shade of night. Even then, it was still possible for men in the tiny self-propelled space-pods to work on the night-side for an hour or so, as long as they were not

overtaken by the advancing line of sunrise. That had seemed a simple enough condition to meet, on a world where dawn marched forward at only a mile an hour; but Sherrard had failed to meet it, and the penalty was death.

He was still not quite sure what had happened. He had been replacing a seismograph transmitter at Station 145, unofficially known as Mount Everest because it was a full ninety feet above the surrounding territory. The job had been a perfectly straightforward one, even though he had to do it by remote control through the mechanical arms of his pod. Sherrard was an expert at manipulating these; he could tie knots with his metal fingers almost as quickly as with his flesh-and-bone ones. The task had taken little more than twenty minutes, and then the radio-seismograph was on the air again, monitoring the tiny quakes and shudders that racked Icarus in ever-increasing numbers as the asteroid approached the sun. It was small satisfaction to know that he had now made a king-sized addition to the record.

When he had checked the signals, he had carefully replaced the sun-screens around the instrument. It was hard to believe that two flimsy sheets of polished metal foil, no thicker than paper, could turn aside a flood of radiation that would melt lead or tin within seconds. But the first screen reflected more than ninety per cent of the sunlight falling upon its mirror-surface and the second turned back most of the rest, so that only a harmless fraction of the heat passed through.

He had reported completion of the job, received an acknowledgment from the ship, and prepared to head for home. The brilliant floodlights hanging from "Prometheus"—without which the night-side of the asteroid would have been in utter darkness—had been an unmistakable target in the sky. The ship was only two miles up, and in this feeble gravity he could have jumped that distance, had he been wearing a planetary-type spacesuit with flexible legs. As it was, the low-powered micro-rockets of his pod would get him there in a leisurely five minutes.

He had aimed the pod with its gyros, set the rear jets at Strength Two, and pressed the firing button. There had been a violent explosion somewhere in the vicinity of his

feet and he had soared away from Icarus—but not towards the ship. Something was horribly wrong; he was tossed to one side of the vehicle, unable to reach the controls. Only one of the jets was firing, and he was pinwheeling across the sky, spinning faster and faster under the off-balanced drive. He tried to find the cutoff, but the spin had completely disorientated him. When he was able to locate the controls, his first reaction made matters worse—he pushed the throttle over to full, like a nervous driver stepping on the accelerator instead of the brake. It took only a second to correct the mistake and kill the jet, but by then he was spinning so rapidly that the stars were wheeling round in circles.

Everything had happened so quickly that there was no time for fear, no time even to call the ship and report what was happening. He took his hands away from the controls; to touch them now would only make matters worse. It would take two or three minutes of cautious jockeying to unravel his spin, and from the flickering glimpses of the approaching rocks it was obvious that he did not have as many seconds. Sherrard remembered a piece of advice at the front of the *Spaceman's Manual*: "When you don't know what to do, *do nothing*." He was still doing it when Icarus fell upon him, and the stars went out.

It had been a miracle that the pod was unbroken, and that he was not breathing space. (Thirty minutes from now he might be glad to do so, when the capsule's heat insulation began to fail.) There had been some damage, of course. The rear-view mirrors, just outside the dome of transparent plastic that enclosed his head, were both snapped off so that he could no longer see what lay behind him without twisting his neck. This was a trivial mishap; far more serious was the fact that his radio antennae had been torn away by the impact. He could not call the ship, and the ship could not call him. All that came over the radio was a faint crackling, probably produced inside the set itself. He was absolutely alone, cut off from the rest of the human race.

It was a desperate situation, but there was one faint ray of hope. He was not, after all, completely helpless. Even if he could not use the pod's rockets—he guessed that the

starboard motor had blown back and ruptured a fuel line, something the designers said was impossible—he was still able to move. He had his arms.

But which way should he crawl? He had lost all sense of location, for though he had taken off from Mount Everest he might now be thousands of feet away from it. There were no recognizable landmarks in his tiny world: the rapidly sinking star of "Prometheus" was his best guide, and if he could keep the ship in view he would be safe. It would be only a matter of minutes before his absence was noted, if indeed it had not been discovered already. Yet without radio, it might take his colleagues a long time to find him; small though Icarus was, its fifteen square miles of fantastically rugged no man's land could provide an effective hiding-place for a ten-foot cylinder. It might take an hour to locate him—which meant that he would have to keep ahead of the murderous sunrise.

He slipped his fingers into the controls that worked his mechanical limbs. Outside the pod, in the hostile vacuum that surrounded him, his substitute arms came to life. They reached down, thrust against the iron surface of the asteroid, and levered the pod from the ground. Sherrard flexed them and the capsule jerked forward, like some weird, two-legged insect . . . first the right arm, then the left, then the right.

It was less difficult than he had feared, and for the first time he felt his confidence return. Though his mechanical arms had been designed for light precision work, very little pull was needed to set the capsule moving in this weightless environment. The gravity of Icarus was ten thousand times weaker than Earth's: Sherrard and his space-pod weighed less than an ounce here, and once he had set himself in motion he floated forward with an effortless, dreamlike ease.

Yet that very effortlessness had its dangers. He had travelled several hundred yards, and was rapidly overhauling the sinking star of the "Prometheus," when overconfidence betrayed him. (Strange how quickly the mind could switch from one extreme to the other; a few minutes ago he had been steeling himself to face death—now he was wondering if he would be late for dinner.) Perhaps the novelty of the

movement, so unlike anything he had ever attempted before, was responsible for the catastrophe; or perhaps he was still suffering from the after-effects of the crash.

Like all astronauts, Sherrard had learned to orientate himself in space, and had grown accustomed to living and working when the Earthly conceptions of Up and Down were meaningless. On a world such as Icarus, it was necessary to pretend that there was a real, honest-to-goodness planet "beneath" your feet, and that when you moved you were travelling over a horizontal plain. If this innocent self-deception failed, you were heading for space-vertigo.

The attack came without warning, as it usually did. Quite suddenly, Icarus no longer seemed to be beneath him, the stars no longer above. The universe tilted through a right angle; he was moving straight *up* a vertical cliff, like a mountaineer scaling a rock-face, and though Sherrard's reason told him that this was pure illusion, all his senses screamed that it was true. In a moment gravity must drag him off this sheer wall, and he would drop down mile upon endless mile until he smashed into oblivion.

Worse was to come; the false vertical was still swinging like a compass needle that had lost the pole. Now he was on the *underside* of an immense rocky roof, like a fly clinging to a ceiling; in another moment it would have become a wall again—but this time he would be moving straight down it, instead of up.

He had lost all control over the pod, and the clammy sweat that had begun to dew his brow warned him that he would soon lose control over his body. There was only one thing to do; he clenched his eyes tightly shut, squeezed as far back as possible into the tiny closed world of the capsule, and pretended with all his might that the universe outside did not exist. He did not even allow the slow, gentle crunch of his second crash to interfere with his self-hypnosis.

When he again dared to look outside, he found that the pod had come to rest against a large boulder. Its mechanical arms had broken the force of the impact, but at a cost that was more than he could afford to pay. Though the capsule was virtually weightless here, it still possessed its normal five hundred pounds of inertia, and it had been moving at perhaps

four miles an hour. The momentum had been too much for the metal arms to absorb; one had snapped, and the other was hopelessly bent.

When he saw what had happened, Sherrard's first reaction was not despair, but anger. He had been so certain of success, when the pod had started its glide across the barren face of Icarus. And now this, all through a moment of physical weakness. But Space made no allowance for human frailties or emotions, and a man who did not accept that fact had no right to be here.

At least he had gained precious time in his pursuit of the ship; he had put an extra ten minutes, if not more, between himself and dawn. Whether that ten minutes would merely prolong the agony, or whether it would give his shipmates the extra time they needed to find him, he would soon know.

Where were they? Surely they had started the search by now. He strained his eyes towards the brilliant star of the ship, hoping to pick out the fainter lights of space-pods moving towards him—but nothing else was visible against the slowly turning vault of heaven.

He had better look to his own resources, slender though they were. Only a few minutes were left before the "Prometheus" and her trailing lights would sink below the edge of the asteroid and leave him in darkness. It was true that the darkness would be all too brief, but before it fell upon him he might find some shelter against the coming day. This rock into which he had crashed, for example.

Yes, it would give some shade, until the sun was halfway up the sky. Nothing could protect him if it passed right overhead, but it was just possible that he might be in a latitude where the sun never rose far above the horizon at this season of Icarus' four-hundred-and-nine-day year. Then he might survive the brief period of daylight; that was his only hope, if the rescuers did not find him before dawn.

There went "Prometheus" and her lights, below the edge of the world. With her going, the now unchallenged stars blazed forth with redoubled brilliance. More glorious than any of them—so lovely that even to look upon it almost brought tears to his eyes—was the blazing beacon of Earth, with its companion moon beside it. He had been born on

one, and had walked on the other; would he see either again?

Strange that until now he had given no thought to his wife and children, and to all that he loved in the life that now seemed so far away. He felt a spasm of guilt, but it passed swiftly. The ties of affection were not weakened, even across the hundred million miles of space that now sundered him from his family. At this moment, they were simply irrelevant. He was now a primitive, self-centered animal fighting for his life, and his only weapon was his brain. In this conflict, there was no place for the heart: it would merely be a hindrance, spoiling his judgment and weakening his resolution.

And then he saw something that banished all thoughts of his distant home. Reaching up above the horizon behind him, spreading across the stars like a milky mist, was a faint and ghostly cone of phosphorescence. It was the herald of the sun—the beautiful, pearly phantom of the corona, visible on Earth only during the rare moments of a total eclipse. When the corona was rising, the sun would not be far behind, to smite this little land with fury.

Sherrard made good use of the warning. Now he could judge, with some accuracy, the exact point where the sun would rise. Crawling slowly and clumsily on the broken stumps of his metal arms, he dragged the capsule round to the side of the boulder that should give the greatest shade. He had barely reached it when the sun was upon him like a beast of prey, and his tiny world exploded into light.

He raised the dark filters inside his helmet, one thickness after another, until he could endure the glare. Except where the broad shadow of the boulder lay across the asteroid, it was like looking into a furnace. Every detail of the desolate land around him was revealed by that merciless light; there were no greys, only blinding whites and impenetrable blacks. All the shadowed cracks and hollows were pools of ink, while the higher ground already seemed to be on fire. Yet it was only a minute after dawn.

Now Sherrard could understand how the scorching heat of a billion summers had turned Icarus into a cosmic cinder, baking the rocks until the last traces of gas had bubbled out of them. Why should men travel, he asked himself bitterly,

across the gulf of stars at such expense and risk—merely to land on a spinning slag heap? For the same reason, he knew, that they had once struggled to reach Everest and the Poles and the far places of the Earth—for the excitement of the body that was adventure, and the more enduring excitement of the mind that was discovery. It was an answer that gave him little consolation, now that he was about to be grilled like a joint on the turning spit of Icarus.

Already he could feel the first breath of heat upon his face. The boulder against which he was lying gave him protection from direct sunlight, but the glare reflected back at him from those blazing rocks only a few yards away was striking through the transparent plastic of the dome. It would grow swiftly more intense as the sun rose higher; he had even less time than he had thought, and with the knowledge came a kind of numb resignation that was beyond fear. He would wait—if he could—until the sunrise engulfed him, and the capsule's cooling unit gave up the unequal struggle; then he would crack the pod and let the air gush out into the vacuum of space.

Nothing to do but to sit and think in the minutes that were left to him before his pool of shadow contracted. He did not try to direct his thoughts, but let them wander where they willed. How strange that he should be dying now, because back in the 1940's—years before he was born—a man at Palomar had spotted a streak of light on a photographic plate, and had named it so appropriately after the boy who flew too near the sun.

One day, he supposed, they would build a monument here for him on this blistered plain. What would they inscribe upon it? "Here died Colin Sherrard, astronautics engineer, in the cause of science." That would be funny, for he had never understood half the things that the scientists were trying to do.

Yet some of the excitement of their discoveries had communicated itself to him. He remembered how the geologists had scraped away the charred skin of the asteroid, and had polished the metallic surface that lay beneath. It had been covered with a curious pattern of lines and scratches. They wrote the history of Icarus, though only a geologist could

read it. They revealed, so Sherrard had been told, that this lump of iron and rock had not always floated alone in space. At some remote time in the past, it had been under enormous pressure—and that could mean only one thing. Billions of years ago it had been part of a much larger body, perhaps a planet like Earth. For some reason that planet had blown up, and Icarus and all the thousands of other asteroids were the fragments of that cosmic explosion.

Even at this moment, as the incandescent line of sunlight came closer, this was a thought that stirred his mind. What Sherrard was lying upon was the core of a world—perhaps a world that had once known life. In a strange, irrational way it comforted him to know that his might not be the only ghost to haunt Icarus until the end of time.

The helmet was misting up; that could only mean that the cooling unit was about to fail. It had done its work well; even now, though the rocks only a few yards away must be glowing a sullen red, the heat inside the capsule was not unendurable. When failure came, it would be sudden and catastrophic.

He reached for the red lever that would rob the sun of its prey—but before he pulled it, he would look for the last time upon Earth. Cautiously, he lowered the dark filters, adjusting them so that they still cut out the glare from the rocks, but no longer blocked his view of space.

The stars were faint now, dimmed by the advancing glow of the corona. And just visible over the boulder whose shield would soon fail him was a stub of crimson flame, a crooked finger of fire jutting from the edge of the sun itself. He had only seconds left.

There was the Earth, there was the Moon. Good-by to them both, and to his friends and loved ones on each of them. While he was looking at the sky, the sunlight had begun to lick the base of the capsule, and he felt the first touch of fire. In a reflex as automatic as it was useless, he drew up his legs, trying to escape the advancing wave of heat.

What was that? A brilliant flash of light, infinitely brighter than any of the stars, had suddenly exploded overhead. Miles above him, a huge mirror was sailing across the sky, reflecting the sunlight as it slowly turned through space. Such a thing

was utterly impossible; he was beginning to suffer from hallucinations, and it was time he took his leave. Already the sweat was pouring from his body, and in a few seconds the capsule would be a furnace.

He waited no longer, but pulled on the emergency release with all his waning strength, bracing himself at the same moment to face the end.

Nothing happened; the lever would not move. He tugged it again and again before he realized that it was hopelessly jammed. There was no easy way out for him, no merciful death as the air gushed from his lungs. It was then, as the true terror of his situation struck home to him, that his nerve finally broke and he began to scream like a trapped animal.

When he heard Captain McClellan's voice speaking to him, thin but clear, he knew that it must be another hallucination. Yet some last remnant of discipline and self-control checked his screaming; he clenched his teeth and listened to that familiar, commanding voice.

"Sherrard! Hold on, man. We've got a fix on you—but keep shouting."

"Here I am," he cried, "but hurry, for God's sake. I'm burning."

Deep down in what was left of his rational mind he realized what had happened. Some feeble ghost of a signal was leaking through the broken stubs of his antennae, and the searchers had heard his screams—as he was hearing their voices. That meant they must be very close indeed, and the knowledge gave him sudden strength.

He stared through the streaming plastic of the dome, looking once more for that impossible mirror in the sky. There it was again—and now he realized that the baffling perspectives of space had tricked his senses. The mirror was not miles away, nor was it huge. It was almost on top of him, and it was moving fast.

He was still shouting when it slid across the face of the rising sun, and its blessed shadow fell upon him like a cool wind that had blown out of the heart of winter, over leagues of snow and ice. Now that it was so close he recognized it at once; it was merely a large metal-foil radiation screen, no doubt hastily snatched from one of the instrument sites. In

the safety of its shadow, his friends had been searching for him.

A heavy-duty, two-man capsule was hovering overhead, holding the glittering shield in one set of arms and reaching for him with the other. Even through the misty dome and the haze of heat that still sapped his senses, he recognized Captain McClellan's anxious face, looking down at him from the other pod.

So this was what birth was like, for truly he had been re-born. He was too exhausted for gratitude—that would come later—but as he rose from the burning rocks his eyes sought and found the bright star of Earth. "Here I am," he said silently. "I'm coming back."

Back to enjoy and cherish all the beauties of the world he had thought was lost forever. No—not all of them.

He would never enjoy summer again.