

Prologue

The blaze started in a wastebasket—a humble beginning for a fire that would soon burn on the other side of the world.

On a humid summer night, the one-room portable office trailer occupied an unlit corner lot of a Louisiana fuel refinery. The trickle of smoke escaping from its open window into the polluted sky was the first sign of trouble.

A battered white pickup was parked beside the trailer with its nose pointed downhill. When the burning wall collapsed into its cargo bed, the driverless vehicle lurched down the gravel slope and rolled into an open-ended Quonset hut. Inside, the flames ignited a maze of pipes that fed aviation fuel into high-pressure manifolds. And from there ...

Three hundred miles off the Australian coast, an explosion rocked a fourteen-passenger seaplane. Its fuel cap, mounted atop the fuselage between the wings, blew off, venting a stream of black smoke. The fire died quickly but no more fuel flowed into the tanks. Engines sputtered and passengers screamed as the aircraft pitched toward the sea.

Chapter 1

Two Weeks to Newton

Not again.

Jack Scatter dangled his feet over the edge of a rocky cliff, on a world one-hundred and eighty-six million miles from the inferno in Louisiana. He considered hurling himself off the ledge—again—just to see what would happen.

Instead, he flicked a pebble into the nearby creek and leaned forward as the water tumbled it away. Far below, the stream twisted a familiar path through a grassy field saddled between two mountain peaks. Jack knew he was dreaming, but this time he planned to do something about it.

“It’s time to go, Jack,” the man standing beside him said.

Jack didn’t turn to face the speaker—it was pointless. “What would you do if I just sat here?”

The man replied, his words jumbled and muted, as if the answers he’d given in hundreds of dreams melded into overlapping syllables. It didn’t matter though, Jack already knew; he’d simply walk away and the dream would end.

For as long as he could remember, he’d been having the same dream. Every detail repeated exactly, except for the ending. From the bare rock he sat on, to the thin clouds in the sky above, to the song of a bird in a nearby bush, he always knew what to expect from one moment to the next.

“I know we’re somewhere in the Spine.” Jack traced the peaks of the four-mile-tall, snow-capped mountains fading into the distance. “But I can’t find *that* on any map.”

Crater lakes were common on Earth, but the one in the neighboring plain shouldn’t exist at all on Cirrus. He’d searched maps of the giant space station and never found matching terrain. Yet, the dream was so vivid, he was sure it had grown from a memory. Dark green lines meandered from opposite sides of the lake, and a perfectly round island occupied its center, like a flattened lava dome.

The anonymous man spoke again with a hundred voices that mingled to obscure all meaning.

Jack flung another stone into the abyss. “Why can’t you just once answer a question without sounding like you’re underwater?”

The man walked away. This was the moment Jack was waiting for.

Through the years, repetition had taught him how to hold his conscious mind at a level just below waking. That practice now enabled him to dream lucidly; to know when he was asleep and to have partial control over his dreams—most of them. He’d tried so many things to alter the flow, but this dream always ended in the same spot.

Not this time. He turned and focused not on the man walking away, but on the forest ahead. *Concentrate.* Instead of following, he’d try for the forest. *Run, but don’t think about running.* If he moved his real limbs, he’d startle himself awake. He fixated on the path bordering the stream, recalling the egg-shaped boulder beyond the meadow. He imagined himself vaulting the knee-high stone, feeling dry lichen flaking off as he brushed its top.

And then he was there—jogging through a field of evenly spaced saplings. *I did it. I skipped ahead.*

He'd bypassed the uphill journey and was nearing the end of the hanging valley, where steep walls converged to a point. Eagerly, he swerved through a cleft in a bus-sized boulder and—

The stranger stood below a natural dam, a moraine-like pile of fallen stone, exactly where he'd be if Jack had followed. He pointed to the top of the heap. "... answer."

"Answer to *what?*" Jack shouted. "What's the question?"

The man climbed, leaving Jack and the familiar disappointment at the base of the wall.

"That's not fair. *I beat you.* Something should have changed." The climber didn't respond, and Jack lingered until he was almost at the summit, wondering if it was worth the effort. *But I changed part of the dream. Maybe I can change the ending.*

Water seeped from a dozen fissures, coating the smooth rocks, but Jack remembered where the best footholds were and finished the trek. The man was waiting by the mouth of a cave formed by enormous blocks of fallen stone. He spoke again. "... inside."

Beyond, the valley ended with a small lake surrounded by steep walls on three sides, but it was the sheltered opening that drew Jack's attention.

Last chance to walk away.

He crouched beneath a massive slab of gray rock, knowing he had to surrender control to move beyond this point. If he took the next step, he might not escape, no matter what the dream showed.

At least, that's how it usually goes.

Stomach knotting, he moved closer, felt cool air at the cave's threshold, smelled damp moss. It was all so real. He struggled with the knife-edge balance between dreaming and waking, but slowed his breathing and restored his confidence. And then the voices began.

Hundreds of indistinct murmurs swarmed from the darkness. The daily anxiety Jack felt around crowds overwhelmed his self-control. He became a spectator again, watching helplessly as his hand reached out, wondering if the cave held something new. It did. This time there was—

Fire.

His dream-self pulled back instinctively from the roar and the heat, even though he couldn't see a flame. *It's a dream. Just a dream.* A shrill alarm pulsed—not a fire alarm, but a warning tone. *Ignore it.* He focused on the cave and smelled gas and oily smoke. New sounds surged: a sputtering engine, distant screams. *It's so close. Just inside.* The enfolding voices swelled as he leaned farther, reached into the darkness and—

Woke up. Every. Single. Time.

He'd never been able to stay asleep; to continue dreaming and discover what waited in the cave or learn who the man was. Always, the answers hid from him like a word on the tip of his tongue. Equally

troubling, the dream was occurring more often. It had gone from being an occasional event to almost monthly, and this was the second time in just the past week.

He took several deep breaths to calm himself, then lay quietly in his bed and listened. No sound came from within the house, but a passing drone overwhelmed the song of a nocturnal bird in the hedge below his window.

It's huge, Jack thought. I haven't heard a drone like that in ... I've never heard one like that. The machine thwapped more like a helicopter than a smaller, unmanned aircraft.

The large drone was heading for the family workshop in the industrial park, but the familiar rhythm of spinning blades carried a juddering vibrato. *It's got a chipped rotor. I guess I'll be replacing that first thing in the morning.* His tiny second-floor bedroom overlooked the fields, not the street, and was small enough for him to roll over and flip the curtain aside without getting out of bed. *Huh? No landing lights.*

Leaning back, he groaned when he spotted the dim numbers on the digital clock. Dawn was still hours away and he never could get back to sleep after one of these dreams. Fortunately, school break had already started and he didn't need to be alert in the morning.

He got up, dressed, and crept down the stairs, even though his mother was a light-sleeper and probably heard him. But she knew he sometimes went to the shop in the small hours, so his stealth was mostly for his father's benefit.

Instead of using the street, Jack left the townhouse through the back door and descended to the unlit dirt path that bordered the fields. The temperature never dropped to freezing in Fairview, but his breath clouded the predawn air. He turned up his collar and tucked his hands into his jacket pockets as he hiked the empty mile to the workshop.

There was something unsettling in the way Danny Kou observed people. When Pieter Reynard, CEO of Armenau Industries, entered his top-floor Seattle office, his chief engineer, Simon, was already suffering under that gaze.

Simon had once confided that he believed Danny was a Hopper: someone who could predict events seconds before they happened. Pieter had dismissed the idea and warned Simon against idle speculation. After all, he knew Danny's secret—the man could foresee only half a second of his own future.

As Pieter passed without offering a greeting, Simon lowered his eyes and shuffled his feet. It wasn't just scrutiny by the head of security that was making him nervous; he'd brought bad news. But he'd have to endure his misery a while longer—Pieter would not be rushed in his own office.

He hung his bespoke suit jacket neatly on the coat stand, brushed a fleck of dust from its sleeve, sat at his desk, and tapped a walnut valet box. "Espresso."

The lacquered box dispensed a silver coin inscribed with an elegant coffee cup icon. Pieter dropped the coin into a mug, revealing a honeycomb of portal crystals on its other side. He took a moment to savor the aroma as steaming black coffee bubbled from the hexagonal array, filling the cup. Finally, he motioned for the engineer to speak.

Simon handed a tablet to Pieter with the results of the predawn test. “Thirty-seven aircraft were actively refueling on the ground, and one in-flight. It had to make an emergency landing near Lord Howe Island, but no one was hurt.” He wiped sweaty palms against the seams of his trousers.

Pieter had been scrolling through Simon’s data. A tiny furrow appeared on his brow when he read the comment about the Australian floatplane, but he just said, “Continue.”

“They’re upset that their fuel supply was interrupted, obviously. But they haven’t made a formal complaint. Yet.”

Pieter said nothing. Simon would get to the point faster that way.

“What ... what do we do if they check the old fuel modules before shipping them back to us? They’ll see that the crystals are damaged. How do we—”

“Stop.” Pieter’s family had been in the transportation business for generations; he understood why the tour company had not acted. “They’re not going to complain. If you were to check, you’d find that plane has at least two more seats than it was designed for. They’re legally required to carry enough reserve fuel to reach the nearest airport, but a full-tank reduces cargo weight and thereby the number of paying passengers. It will be fine.”

Simon nodded and took two deep breaths. “The pumping station in Louisiana was destroyed as ... as planned. No injuries there ...” He shuffled a half step back from the desk. “But the roof collapsed and tore the fuel manifold apart before the final phase. That was unexpected, and it briefly exposed the wormholes, which led to small fires in several other cities.”

Pieter had been reading as Simon talked and had already finished the section covering the secondary fires. He considered the news for only a moment. “It’s unlikely anyone will link the events. Our official position is unchanged—the fire forced us to cut the fuel supply as a precaution. Pass requests for information directly to me and prepare for the next round of tests.” He said this casually but an underlying tone made it clear he would tolerate no more delays.

Simon glanced at Danny and retreated another half step. Danny, like Simon himself, was of average height, but muscled like an Olympic gymnast. That and his unrelenting glare made him more intimidating than Pieter, who was broad-shouldered and stood six inches taller.

“There was a second problem,” he finally said. “Our instruments recorded every crystal shattering as expected, only not until the pressure rose slightly higher than projected.”

Pieter had skipped the actual measurements. He understood the principles but left the details to the engineers. “What caused that?”

“It may just be an instrumentation error, except ... well ... except that the extra pressure works out to be precisely what it would be if there were two more crystals.”

“Another active pair?” Pieter’s voice was controlled but menacing. “Where?”

“Now that they’ve been destroyed, there’s ... there’s no way to tell.” This time it was a full step back. “I’ll keep working on it and let you know as soon as I have an answer.”

Pieter dismissed the engineer but called him back before he reached the door. “Wait. The floatplane. It says here they’re grounded until they get the new fuel module.”

“That’s right. The courier has already delivered the upgrade package to their hangar on the mainland. They’re just waiting for one of their other aircraft to become available.”

“We have a helicopter in Sydney. As a courtesy, pick up their mechanic and fly him out to the island. Have our pilot collect the old modules while they’re finishing the repair.”

Simon smiled, unable to hide his surprise. “That ... that’s very generous. I’m certain that’ll go a long way to smoothing things over.” He was still smiling when he left the room.

Pieter waited for the door to close. “Make sure that airplane never makes it to the mainland.”

Danny nodded and began typing on his phone, exposing dark lines of a tattoo under his cuff. A whiff of oily smoke drifted from his clothes.

Pieter picked up a gleaming sphere of white quartz from a wooden pedestal on his desk, then spun his chair to face the window. Despite the persistent haze, he’d have a fine view of Lake Washington from the ninety-sixth floor when the sun came up—few buildings in the city were equal to or taller than his own. Except for the conference room, his office and other private spaces took up the entire floor, but the view from this corner was his favorite. Even his overbearing father would have been impressed.

He raised the sphere to examine it more closely. “The extra crystals. Can you track them?”

Danny lowered his phone. “If there are records, I’ll find them. Do I have your approval?”

Approval. The meaning between them was clear. For Danny, making a plane and its crew disappear was trivial—the waters were deep enough off the coast. But when he asked for approval, it meant he expected to hire external contractors through multiple layers of secrecy in order to hide the connection to Armenau. The operation would be expensive.

“Just clean up loose ends,” Pieter said. “We can’t afford delays.”

Danny nodded again and left the office without a word, moving silently over the polished hardwood floor. Only the soft click of the door latch marked his passage.

Pieter shifted the tennis ball-sized stone between hands, weighing both it and his options. He’d already come so far on a difficult journey, liquidated many of his most treasured assets, and trimmed thousands of jobs. He hadn’t made that decision lightly—it had taken a decade to replace those assets.

“Call Simon,” he instructed the office AI.

As he waited for the connection, Pieter rolled the stone, feeling the carved dimples that mapped locations of mine shafts and pumping stations. *Such a simple thing.* The stone wasn’t just any rock, but a scale model of the icy planetoid in the Oort Cloud that was the source of his wealth. *Enough fresh water to last a thousand years.*

Simon, still in the elevator, answered his phone seconds later.

“Move the resonance test up to the thirteenth,” Pieter said.

“That’s not ... that’s less than two weeks.”

Pieter tossed the stone and spread his fingers as it fell. With only a thought, he made it stop and hover inches above his hand. “Is that a problem?”

“We can’t ... I had planned for a lot more time to prepare.”

Pieter was used to gambling. He’d risked his billion-dollar inheritance on an unproven concept and parlayed that success into a business empire that now controlled vast resources on Cirrus—the world-sized space station that produced a quarter of Earth’s food. And he’d done it despite the contempt of the thousands of Cirrus-investors who claimed to have built their own fortunes from the ground up.

“Will it work?” He twirled his fingers. The hovering stone began to spin.

“Yes, but ...”

“But what?” The stone spun faster.

“It’s a big step.”

Bigger than you can possibly guess. Armenau Industries’ earnings were still firmly grounded in portal-based water delivery. Giving up that stability was a huge risk, but it was too late to stop. “I’m ready.”

Pieter clenched his fist.

The stone shattered.