CHAPTER ONE

Dr. Patricia Lemay had lived the better part of one year staring at one thing, and the words still slipped from her grip. Any description she attempted sounded absurd the moment she heard herself say it.

Structure was the name on the official reports, as though every committee and coalition responsible for humanity's continued survival preferred the existential crisis kept within the bounds of a file and labeled. The feeds she observed on the screen in the observatory revealed it first as an anomaly, then as an object, and reluctantly, as something that had been *built*. Vast angular formations of unknown material drifting in the outer edges of space, beyond the inner edge of the heliopause. Kilometers and kilometers of it, in a state of decay that defied the normal and natural breakdown of an object, shedding any gravitational distortions and pulses of exotic radiation the way a burning building sheds embers. Except that the building was the size of a small moon. And the embers, given ten to fifteen years of unchecked drift, would set Earth on fire.

Three years since confirmation. One year until launch. She stood at the observation window of the Geostationary Construction Spillway—the Spillway, humanity's finest and most expensive piece of collective anxiety—and looked out at the ship that was yet to be named,

attended by its halo of drones and welder flash, and thought about the imagery she'd memorized by now down to each pixel: those dark formations against the starfield, enormous and utterly out of place in a way that only made sense if someone had put them there. Something had. The decay suggested whatever built it had long since departed—or had stopped caring—though Patricia had learned, in three years of staring at the data, that the Structure had a talent for suggesting things that didn't hold up under extended examination.

Stay in the present, she told herself, which was advice she gave herself often enough that it had stopped working entirely. Ahead of her, a drone veered slightly off its filed approach vector. She watched it correct, and then watched it not quite correct, and made a note of it.

The ship under construction had no name yet, which Patricia found either poetic or infuriating depending on the hour.

Houston was working on it, apparently. There were committees. There were, she had been assured, processes. As though the act of attaching a word to two hundred thousand tons of experimental propulsion technology and optimistic engineering required the same deliberative rigor as whatever it was committees did when the fate of the species wasn't nominally on the agenda. She understood the impulse toward grandeur. The Lumina-Class designation alone had clearly been coined by someone who'd spent more time reading mythology than stress-testing fuel compression ratios. First of its kind. Built for the long reach—out past Neptune, out past the comfortable mapped dark, to find something and look under the hood and come back with enough data to justify the cost and the years and the one hundred fifty people who'd signed away the foreseeable future of their lives to be here.

Go out. Verify. Return. That was the mission as it had been explained to her, stripped of the language that tended to accumulate around things like this—the language of destiny and

historic firsts and humanity's next great chapter. She'd sat through the briefings. She'd read the reports. The ship in front of her didn't need a name that carried the weight of civilization; it needed its port thruster assembly signed off, and its quantum relay calibration finished, not to mention somewhere between forty and sixty outstanding construction tickets resolved before anyone was going anywhere.

The project finish date on the screen returned *No Current Results*, which was not an answer.

Patricia stared at it for a moment. Systems like R.C. didn't pause—that was rather the point of them, the whole reason you trusted a distributed AI with several billion dollars of construction management instead of a clipboard and a team of very weary engineers. It processed. It returned. The gap between input and output could be measured in milliseconds, not in this silence, which had stretched across her screen like something deciding whether to speak.

She queried it again. Gave it the full courtesy of a longer wait, in case she was being uncharitable. A system running on quantum processors had no business needing it.

No Current Results.

She looked at the label. She observed the words. Then she reached for the comms relay and pulled up Remy Colton's code, because there was a specific category of problem that a diagnostic screen declining to have an opinion about the finish date of a two-hundred-thousand-ton interplanetary vessel represented, and she wanted a human voice on the other end of the line before she decided what to call it.

Remy's face appeared on her screen looking like a man who had recently decided that sleep was a luxury item and had made his peace with that.

“Oi, Dr. Lemay.” He was already half-grinning, which probably said something about Remy specifically. “Perfect time, yeah—what can I do for you?”

She had always appreciated that about Remy. The Spillway was currently hosting approximately one hundred fifty construction personnel in various states of exhaustion and professional crisis, and he remained constitutionally, stubbornly *cheerful* about it. She wasn't sure if it was a cultural affectation or a survival mechanism. Probably both.

“The completion projection,” she said. “I submitted a final query about a minute ago. R.C. came back with *No Current Results*—twice.” She let that sit for a moment, because it was the kind of statement that deserved to sit. “That's not normal behavior for the system, Rem. Not even close. I want to know if you're seeing anything anomalous on your end before I start deciding what to make of it.”

Remy's grin didn't disappear so much as recalibrate slightly. He reached for something off-screen—a tablet, by the angle of his eyes—and his brow did the small, careful thing it did when he was looking at numbers he didn't immediately like.

“Nothing on my end, doc,” Remy said, in the tone of a man reporting good news who was not entirely sure it was a good thing. “Routines are clean. Guidance is nominal. The system thinks everything is fine.” A pause. “Which I appreciate is not the same thing as everything being fine.”

“No,” Patricia agreed. “It isn't.”

“Half an hour,” he said. “I'll pull the full diagnostic and come back to you with something more useful than the *computer seems happy*.”

“Please.”

“On it with enthusiasm, ma'am.”

She believed him on both counts. She clicked off the relay and stood for a moment with her hand resting on the gangway rail, letting the Spillway settle back around her—the low gravity doing its usual quiet work on her sense of weight, her boots holding their magnetic conversation with the floor, the vast construction proceeding outside the viewport with the elaborate unhurried industry of something that did not know it might be in trouble.

The drones moved in their assigned arcs, ferrying sections of hull plate and composite paneling, and at intervals a welder-drone held its position and the viewport pulsed white, and her eyes adjusted, and the ship was incrementally more of a ship than it had been. She watched the way she'd been watching it for months now—cataloguing the progress, doing the arithmetic she wasn't in need of doing herself because R.C. was supposed to do it for her. Somewhere in that half-finished hull was the quantum relay assembly. Somewhere in it was the propulsion system that had never been tested at the distances they were proposing to test it. Somewhere in it, presumably, was an answer to why an AI managing several billion dollars of critical construction had twice declined to have an opinion about when it would be finished.

The welder pulsed again. She continued watching.

The VASIMR engines went in today, which meant the ship was beginning, in some meaningful sense, to look like it might actually go somewhere.

Patricia watched the installation crew guide the second lateral housing into position. The engines themselves were only the most visible part of what they were asking the ship to do—the ambition stacked inside every component, the gap between what the simulations had promised and what deep space would actually say about it.

She'd had similar thoughts about her own contribution. Her design wasn't a fantasy anymore. It was sitting in the forward communications bay, waiting to make the distance

between the ship and Earth into something that could be crossed in seconds rather than weeks. She was proud of it in the way she was proud of most things she'd built: quietly, with a clear-eyed awareness of everything that could still go wrong.

The second engine housing locked into place. Someone on the crew gave a small cheer. Patricia made a note in her log and kept watch.

She nearly missed it.

One of the mid-range cargo drones—she'd been watching it carry a composite panel section on its assigned arc toward the forward hull—drifted. Not catastrophically, not the kind of deviation that triggered automatic alerts, but enough. It skimmed past another drone with a margin that the flight management system would have logged as acceptable and she would have logged as way too close for comfort, and then it continued on a heading that was almost correct and therefore worse than if it had been obviously broken.

Patricia was back at the comms relay before she'd consciously decided to move.

“Doc.” Remy's voice arrived already slightly defensive, which meant he'd seen her ID on the incoming and made an accurate prediction about the content of her call. “I haven't finished the eval yet. If you could give me just a—”

“Forget that eval. I need you on the scope right now. Drone behavior—tell me what you're seeing.”

A pause—the kind that preceded someone looking at something they didn't like.

“Blimey.” Quieter than his usual register, which was itself information. She could hear him moving, the soft magnetic click of his boots, the tap of a screen. “Yeah, Doc. I've got it on screen. And it's not a nav error—the data's showing the guidance buried somewhere inside R.C.'s systems.” Another pause, and when he came back his voice had shifted into that careful tone of

someone choosing their words. “The thing that went wrong on your last mission—I think we might finally be looking at the same signature.”

Patricia said nothing for a moment. She looked back at the viewport, at the drone that had drifted, still moving, still glitching from her point of view.

“Don't lose it,” she said. “Whatever you do, don't lose that signal.”

The proximity alert didn't sound like an alarm so much as a confirmation.

The red wash hit the room the same moment she turned from the viewport, and for a fraction of a second her brain ran the calculation—alert, drone, trajectory—and arrived at an answer she didn't want. She moved anyway, because the alternative was standing still while the answer arrived at her. The drone came through her peripheral vision as a spinning mass of composite and thruster housing, not the graceful arc of a functioning piece of equipment but the flat and committed trajectory of something that had stopped caring about its flight path, and she was already dropping, shoulder down, putting the nearest console between herself and the viewport as her hand found the emergency evacuation lever by muscle memory rather than thought.

The impact came thirty feet down the gangway. She felt it through the floor before she heard it—a deep, structural shudder that the Spillway absorbed with the resignation of something that had been built to take punishment and didn't particularly enjoy it.

Then the hiss. Then the speakers.

Hull breach. Evacuate this section immediately.

The fire suppression system laid a haze across the corridor that tasted of chemicals and good intentions, and Patricia pulled herself upright and took stock. It was still there—the fear,

the adrenaline spike, the part of her that wanted to have a strong feeling about what had just happened. She noted it, filed it, and set it aside for later. It would keep.

We had the AI on those drones. The thought arrived flat and uninvited. *We had control of it.*

Apparently they hadn't.

She moved toward the exit, cataloguing as she went.

"R.C." She kept her voice level, which took more effort than she would have liked to admit. "Back up to system five. Prioritize mission-critical systems and active research only. Everything else goes dark until I say otherwise."

The AI acknowledged with the serene confidence of something that didn't know it had just demonstrated a serious gap between its self-assessment and its actual performance. She wasn't sure whether that was reassuring or the opposite. Probably the opposite.

She moved.

The escape hatch was fifty meters down the gangway, which in low gravity and electromagnetic boots and suppression haze was a different fifty meters than it would have been anywhere else. The gas wasn't toxic—she knew that, had read the safety specifications, believed them in the abstract—but her lungs were lodging a formal objection regardless, pulling each breath in with the short, grudging efficiency of someone who had run too many PT circuits at the officer's academy in conditions that the instructors had cheerfully described as character-building. The only thing missing was someone at her shoulder telling her she could go faster. She probably could have gone faster.

Hargrove was going to be furious.

Not because things had gone wrong—things went wrong, that was the nature of complex systems operating at the edge of what complex systems do. Because things had gone wrong here, on his station, on his watch, with his mission timeline sitting in the background of every decision like a creditor who hadn't said anything yet but was keeping very careful notes. She had worked for demanding people before. The Air Force had introduced her to several categories of demanding that she'd previously thought were reserved for fiction. Hargrove occupied a category she hadn't encountered until this posting—the kind of demanding that came not from ego or ambition but from genuine, uncompromising ethical conviction, which was in some ways considerably harder to navigate.

Ahead of her, three crew members from this wing were already at the hatch. She called out to them to hold it. They complied. Small mercies.

She ducked through, breathing carefully, and let the hatch seal behind her.

"R.C.—main systems. Take us there." She didn't bother with warmth. The AI had earned a more transactional relationship for the time being.

It was Yusuf who spoke first, which meant it was serious. He was not, in her experience, a man who raised concerns casually or without having already turned them over several times in his own mind before deciding they warranted someone else's attention.

"Doctor." He kept his voice low, which she appreciated. "I need to get a report to Stephen. About R.C." A breath. "We found evidence of a possible intrusion into the system."

The cold arrived without warning, the specific cold that had nothing to do with the Spillway's climate controls and everything to do with the word *intrusion* meant in the context of a mission that approximately ten billion people were depending on, whether they knew it yet or not.

“The firewall,” she said. Less a question than something she was thinking out loud. “Someone got through the firewall.”

“We can't track it. Can't explain it. Can't find a point of entry.” He was holding a data pad, and she noticed his hand wasn't entirely steady, which from Yusuf was the equivalent of anyone else being visibly shaken. “I pulled the relevant data onto an air-gapped drive before we evacuated. Physically isolated from R.C. so we could examine the code without—”

The floor moved.

Not the gentle sway of low gravity, not the structural complaint of a station absorbing routine stress. It moved with intention, or at least with force, which in the moment amounted to the same thing, and the four of them toppled into the bulkhead with the graceless unanimity of people who had not been given the option of bracing properly. Patricia took it on her shoulder and the side of her head, the aircraft-grade metal making its customary indifferent contribution to the encounter, and she was on the floor before the sound of it had finished reverberating through the corridor.

She got her hands under her. Catalogued herself—shoulder bruised, head ringing, nothing structural—and moved.

The first colleague she reached was upright and blinking, which she logged as acceptable and moved on. The second had taken the bulkhead across her forehead, the gash already producing the disproportionate quantity of blood that headwounds considered their professional obligation, her hair matted and dark with it. Conscious. Eyes tracking. Painful but survivable.

The third wasn't moving.

His arm lay at an angle not intended for its natural design to achieve, which she noted and set aside as a secondary concern, because the primary concern was his pulse, which she found at

his jugular with two fingers and a silence that stretched long enough to be frightening before it delivered its answer—weak, arrhythmic, present.

Present was enough. She'd seen worse, so this was something she could work with.

“Ciera. Here. Now.”

She didn't look up from the man, whose name she fought to remember. Tony. Her hands were already moving across his skull with the careful, systematic pressure of someone who had been taught exactly what to feel for and very much didn't want to find it. She found it anyway. The scalp had separated down to the bone along a line that told her everything she needed to know about the force of the impact, and beneath it the cranium had done something it was not intended to do. She turned his head fractionally, confirmed what she was seeing, and turned it back.

“Ciera.” Still working. “I need you to get to medical. Tell them I have a head trauma, possible cranial fracture, unconscious male, corridor seven. Can you do that?”

No response.

She looked up.

Ciera was on her feet, which was something, but the rest of her hadn't entirely caught up yet. She was standing with one hand against the bulkhead. Her hair was across her face. She was staring at a point on the opposite wall that didn't contain anything worth the stare.

Patricia set Tony's head down carefully, crossed to her in three steps, and took her wrist—running her thumb along the forearm with practiced efficiency, checking for the subtle bump or swell of a fracture while simultaneously assessing the less structural problem of the woman attached to it. Nothing broken. Just shock, doing what shock did, which was remove a

person from the room they were physically standing in and deposit them somewhere less immediately useful.

She snapped her fingers in front of Ciera's eyes.

It worked, which was the main thing.

“Ciera. Are you with me?”

“I—” She blinked. Refocused. The hand against the bulkhead shifted from bracing to steadying, which was progress. “I think so. What—” She turned her head, taking in the corridor behind them for the first time, and Patricia watched her register the damage with the particular expression of someone who had signed up for something that had sounded considerably more manageable in the briefing. “What just happened?”

“Drone failure.” Patricia was already moving back to Tony. “R.C. developed a problem. I'm working on understanding the scope of it.” She kept her voice even and her assessment brief, because Ciera didn't need the full version right now—she needed something small enough to hold onto while the shock finished its business.

It didn't work. Ciera's face tightened in the way faces tightened when they'd decided that the answer they'd been given was structurally inadequate.

“That's impossible,” she said, with the conviction of someone who had spent enough time at her monitoring station to believe that attention and disaster operated on a mutually exclusive basis. “We watch the AI constantly. All of us. Something like this can't just—” She stopped. “What could possibly get through?”

Patricia looked at her for a moment. Then she looked back at Tony.

“That,” she said quietly, “is exactly the right question.”

She didn't answer Ciera's question immediately. She was looking at the corridor—the buckled section of wall, the scorch pattern from the impact, the general evidence of a morning that had developed opinions of its own—and thinking about the thought she'd woken up with at 0400 and spent three hours trying to convince herself was paranoia.

It hadn't been paranoia.

"This wasn't an accident," she said, quietly enough that it wasn't quite an announcement. "I don't want to get into the details right now, and I'd ask you to keep that between us until I've had a chance to talk with the right people. What I will tell you is that we're going to find out exactly what it was." She turned back to Tony. "Right now I need you to help me with him."

She worked as she talked, which was the only way she knew how to work in situations like this. Rolling him onto his back was straightforward; stabilizing his head was less so, because the floor of the corridor offered nothing she would have chosen to put under a cranial fracture and everything she wouldn't. She looked at what was available. She made a decision that her shirt would contribute to the situation whether she liked it or not, tore a section from the hem, folded it into something with more structural integrity than it had any right to have, and positioned carefully beneath his skull.

The blood soaked through faster than she'd expected.

Stop looking at it. Her own voice, the internal one that had gotten her through things she didn't talk about at dinner parties. *He's stable. He's breathing. You've seen worse and you fixed worse. Get his neck secured and get the team up here*.

She managed to secure his neck.

“Ciera.” She kept her voice level and her eyes on Tony. “I need you on his head—both hands, just behind the ears, no pressure, just contact. You're keeping him still while I get his spine into a neutral position. Can you do that?”

Ciera moved closer carefully. Her hands found his head and she looked down at the wound with an expression that Patricia recognized—the specific look of someone encountering the reality of human fragility at close range for possibly the first time—and held it together, which was more than some people managed.

“Is he going to make it?” Her voice was barely functional. And then, because Ciera had apparently decided this was the moment: “You know what's been happening between us. Tony and me. You've seen it.”

Patricia looked up at her across the length of his unconscious body.

She had, in fact, seen it. She had filed it under things to address when the mission isn't also being actively sabotaged and left it there.

“Right now,” she said, with as much gentleness as the situation permitted, “he needs a medic team and a trauma surgeon, in that order. Everything else waits.” She held Ciera's eyes for a moment to make sure the message had arrived. “He's tough. So are you. Prove it.”

Tony groaned when she moved his legs, which was the best thing he'd done since hitting the bulkhead.

Patricia worked quickly and without commentary, guiding each leg into alignment with the careful economy of someone who had learned field stabilization in conditions that made a pressurized corridor look like an operating theater. The groan meant brain activity. Brain activity was the only update she needed from him for now.

“You're doing fine,” she told Ciera, who was still on her knees with her hands bracketing Tony's head, her face doing the complicated work of someone who had decided to hold themselves together through sheer force of social obligation. It was working, more or less. “Keep him exactly there. No pressure—you're just the walls, not the ceiling.”

She finished with his legs, moved to his spine, made the small adjustments that would have to be enough until the people with the actual equipment arrived. Then she crossed to Ciera and put a hand on her shoulder—not the reassuring squeeze of someone performing comfort, but the solid, deliberate contact of someone communicating present, *real, paying attention*.

“Okay. Let's go slowly. He's stable.”

Ciera lifted her hands with the exaggerated care of someone defusing something, which under the circumstances Patricia found entirely reasonable.

“Med bay,” Patricia said. “Two techs minimum, tell them cranial fracture, spinal precaution, corridor seven. You don't need to know anything else to say that, and that's all they need to hear. Can you manage it?”

The hesitation was brief. Something moved through Ciera's expression—the confusion and the grief and the morning's accumulated violence—and then she nodded, and it was a real nod rather than a performative one, which mattered.

She lifted herself to her feet. The magnetic boots found the floor with their customary certainty, which was more than could be said for the rest of the situation. Patricia watched her straighten, watched the decision consolidate in her posture, and then watched her move down the gangway with the careful, deliberate step of someone who had somewhere specific to be and had chosen to be the person who got there.

Patricia turned back to Tony.

“Don't,” she told him quietly, “make a liar out of me.”

The klaxon stopped while she was waiting, which was something. Her ears continued the klaxon's work independently, a high, sustained note that she knew from experience would take its time leaving.

She stood over Tony and thought, because thinking was what she did when her hands weren't needed and her body was briefly between crises. R.C. was online. R.C. had been online throughout, which was almost the most troubling part—not a system failure, not a cascade error, not any of the categories of malfunction that the engineers had spent three years anticipating and designing against. The system had been running. The system had been, by every metric it reported, fine. And somewhere underneath that reported fineness, a drone had been walked off its flight path like a dog on a lead and used to punch a hole in the Spillway's hull.

The firewall was, by every specification she had read and every assurance she had been given, impenetrable. She had read those specifications carefully, because the quantum relay assembly sitting in the forward comms bay represented four years of her life and she had wanted to understand exactly what was protecting it. Impenetrable, they had said. She was now standing in a corridor that had recently experienced penetration of a fairly emphatic kind.

Insider, said the part of her brain she was trying not to listen to. Has to be an insider. Someone who knows the system. Someone who's been here long enough to map the gaps.

She knew almost everyone on this crew. That was the problem.

Ciera's voice preceded the med team by about thirty seconds—nervous, precise, doing better than Patricia had expected. She stepped back and let them work, watching the practiced efficiency of people who had trained for exactly this and were now discovering what exactly this

felt like at the implementation stage. They lifted Tony onto the gurney with a care that cost them speed and was worth it. She fell in behind them toward the lift.

The lift doors closed.

What she could afford was the sequence. She ran it again, the way she'd been trained to run it—not looking for comfort, not looking for an explanation that made things better, just looking for the shape of what had actually happened. The completion projection query that R.C. had declined to answer. The drone that had drifted in a way that was almost within parameters, almost innocent, almost the kind of thing you could attribute to a calibration error if you were inclined to be generous. The override that Remy had found buried *within the system's logic* like something that had been placed there rather than developed there. And now Tony, on a gurney eighteen inches from her left shoulder, with a cranial fracture and an arm that the medics had stopped mentioning, which she suspected meant they had made an assessment and decided the arm was also the least of the current problems.

The Spillway was humanity's single largest and most expensive construction project. The mission was, depending on who was doing the calculating and how honest they were being about the numbers, humanity's most urgent. She was aware of all of this. She had been aware of it for long enough that it had stopped feeling like weight and started feeling like weather—just the atmosphere she moved through. She didn't need to remind herself of the stakes. The stakes were self-evident. What she needed was to stay inside the sequence and follow it to wherever it led, regardless of what she found when she got there.

She looked at Ciera. Ciera was looking at the gurney with her hands clasped in front of her, the trembling mostly resolved into a general stillness that was either composure or its

convincing understudy. Patricia gave her a nod—not reassurance exactly, more acknowledgement. You're here. *You did the thing that needed doing. That counts*.

The doors opened onto the med bay.

It was the brightness of places designed to leave nowhere for problems to hide—white surfaces, overhead lighting calibrated for surgical precision, the air carrying the specific quality of a space where the filtration system took its responsibility seriously. The trauma unit doors were already open. A surgeon Patricia recognized and two nurses she didn't had arranged themselves around a table that was waiting for Tony with the impersonal readiness of something that had been designed for exactly this and had been hoping not to be needed.

She stopped at the doorway.

The transfer happened around her, efficient and unhurried in the way that only genuine expertise managed to be both at once—monitors connecting, the soft percussion of instruments being arranged, the life-support systems adding their voices to the room one by one until the space had the texture of somewhere that was now, seriously, in the business of keeping a person alive.

The surgeon's instructions were quiet and not addressed to her, which was correct. Her job in this room was to stay out of the way and to watch, and she did both with the focused attention of someone filing every detail for a conversation she hadn't had yet but could already feel waiting for her at the other end of the day.

“Do you think he'll make it?”

Ciera asked it the way people asked questions that weren't sure they wanted answered—quietly, without quite looking at her, her eyes on the glass and what was happening behind it.

Patricia considered the honest answer, which was that cranial fractures existed on a spectrum and Tony's was toward the end of that spectrum she'd rather not think about too carefully, and that the next six hours would tell them considerably more than she could. She considered it, and then she gave Ciera the version that was also true and considerably more load-bearing right now.

"He's tough. And we have a good team." She nodded toward the observation alcove—a small concession to the human need to watch over people you couldn't help, separated from the trauma unit by a glass partition that muffled the sounds of focused, urgent work into something almost peaceful. "Come on. Let's get out of their way."

The alcove was small enough that standing in it felt faintly companionable even without trying, which she suspected was intentional design. She crossed her arms and leaned against the wall and looked through the glass at Tony's still form under the surgical lights, the wound on his head reduced by distance and brightness to something almost abstract, and was aware of her stomach doing something she was choosing to interpret as professional concern rather than anything more complicated.

She had patched up soldiers. She had sat with people in worse shape than this in conditions that made the Spillway's trauma unit look like a reasonable fantasy, and she had done it without the glass partition without the filtration system and frequently without the benefit of knowing whether anyone was coming. This was different. She knew it was different. The isolation up here had a particular quality—not the isolation of a forward position, which was the isolation of danger, but the isolation of shared purpose, of people who had chosen the same strange life and were therefore implicated in each other in ways that took longer than a year and a half to fully account for.

Ancient machine or derelict weapon? Abandoned or waiting? Dangerous by design or dangerous by neglect. She kept meaning to stop adding to that list.

She was still thinking about that when Remy's voice arrived in her ear.

“Dr. Lemay.” Urgent, focused, the cheerfulness entirely absent in the way that Remy's cheerfulness only went absent when he had something in front of him that he didn't know how to be cheerful about. “You hearing me? I've got something on that diagnostic.”

She tapped her headset. “Go ahead, Remy.”

“Right.” The word carried the weight of someone who had spent the last however-many minutes hoping the thing they'd found would turn out to be something else, and had run out of time to keep hoping. “So. R.C. is clean—core functions nominal, guidance systems intact, no errors flagged anywhere in the primary systems. Which you'd think would be good news.”

“I sense a ‘But’ here.”

“But I went into the drone logs. Manually, line by line, because I had a feeling the automated summary was going to tell me everything was fine and I wasn't in the mood to be told everything was fine.” Pause. “There's a buried override in the flight code. Someone put it there. Not a glitch, not a cascade error, not anything that happened by itself—it was placed, deliberately, by something that knew exactly where to put it so the automated checks would step around it.”

Patricia became aware of her own pulse in a way she generally preferred not to.

“Where did the signal originate?”

“That's the part I really don't enjoy telling you.” She could hear him moving, the click of his boots, the tap of a screen. “Inside the Spillway. Our own network. And it's clean—tighter than anything external could have reached—which means whoever did this wasn't outside

looking in. They were already here. We can trace it as far as Sector C's relay and then it just—" He made a sound that conveyed, without requiring elaboration, the particular frustration of a signal that had known it was being followed and had planned accordingly. "Gone. Whoever's behind this knows this station, Doc. Not generally. Specifically."

She looked through the glass at Tony. Then she looked away.

"Lock down Sector C. All access points, nothing in or out until I say otherwise. And I need a full list of everyone who's been through that hub in the last twenty-four hours—personnel, contractors, maintenance, anyone with a logged entry."

"Already pulling it. But there's something else." He said it in the tone of someone adding a second item to a list that had already exceeded its recommended length. "That diagnostic error you flagged this morning—the *No Current Results* on your terminal? It's not just your terminal. I'm seeing it in propulsion, fuel compression, structural monitoring—" He huffed. "Quantum communications."

The last two words landed in the alcove and stayed there.

Patricia said nothing for a moment, conscious of Ciera beside her, listening, the glass in front of them and Tony behind it and the list of things that were currently wrong with this station growing with a momentum that she did not find encouraging.

"How widespread?" she said finally.

"That's what I'm trying to find out. But Dr. Lemay—" Remy's voice dropped into a register she'd never heard from him before, something underneath the Cockney warmth that was quieter and more careful and considerably more frightening. "Whatever this is, it's not one thing that went wrong. It's one thing that was done. To all of it. At once."

The quantum comms were hers. That was the part that made it personal in a way that the drone and the hull breach and even Tony hadn't quite managed—all that work sitting in the forward comms bay of the ship, the thing that made the distance survivable rather than something you simply endured, and now something had reached into it and was rearranging the furniture.

Without the relay, the mission didn't have a safety net. It had a one-way door.

“Remy.” She kept her voice flat and specific, because flat and specific was what the situation required and what Remy, to his considerable credit, responded to best. “Full diagnostic of R.C.'s systems. Everything. Pull whatever you need to pull offline—I don't care about construction delays right now, I care about knowing what we're actually working with. Nothing stays running that we can't verify.”

“Wilco. I'll come back to you when I've got something solid.”

“Make it fast.”

The comms clicked off and she stood for a moment with her hand still at her headset, looking through the glass without quite seeing it. Behind the partition the surgeon was working with the economy of someone who had decided talking was a resource best directed at the people who needed instruction and not at the room generally. Tony's vitals ran their line across the monitor. Still there. Still irregular in the way that meant the body was arguing with itself about something, but still there.

Her awareness of Ciera pulled her out of her own head. She was standing slightly behind her through the entire conversation with the particular stillness of someone trying to take up as little space as possible while absorbing as much information as they could.

“You heard that,” Patricia said. It wasn't a question.

Ciera swallowed. “Someone's sabotaging us.”

“It looks that way. The question is what it's actually pointing at.” She pushed off from the wall and moved, because standing still while she thought had never worked as well for her as moving while she thought, and the alcove was small enough that this amounted to a very contained form of pacing. “And they're good at it. They know our infrastructure. They know our blind spots. They know how to make R.C. look at itself and see nothing wrong.” She stopped. “That's not an external actor who got lucky with a firewall. That's someone who's been here. Someone who knows us.”

She said it the way you said things you'd been trying not to say—flatly, clinically, because the alternative was letting the weight of it land on her face where Ciera could see it.

“If they can walk a drone into our hull and blind every major system simultaneously—” She looked at the glass, at the ship that was visible through the far viewport beyond the trauma unit, half-built and patient and carrying everything that the next decade meant. “Then the Spillway isn't the target, Ciera. It's never been the target. The ship is.”

Ciera's eyes moved to the viewport and the ship beyond it. “You think they're after the megastructure's mission? Specifically?”

“Maybe.” Patricia stopped pacing. “Or maybe the mission is almost incidental and what they actually don't want is for us to *leave*.” She considered the shape of it, turning it over the way you actually turned over something you'd found and weren't sure whether to pick up. “There are a reasonable number of parties on Earth who were never enthusiastic about this project. Some of them object to the cost. Some of them object to the international structure—the Spillway as a symbol of cooperation tends to look different depending on which side of various borders you're standing on. Some of them object to what we might find out there, or what we might have to do

about it when we do." She paused. "And some of them object to the technology sitting at that ship, which is worth considerably more than the ship itself to the right buyer."

The VASIMR housings. The compression system. The quantum relay assembly, which she tried not to think about in those terms and was now thinking about in exactly those terms.

"Corporate, national, ideological." She spread her hands slightly. "Take your pick. The Spillway has been a tempting target since the first strut went up. The difference between then and now is that someone stopped being tempted and started being active."

Her wrist console beeped.

She looked down at the flashing ID and felt her stomach make a small, considered assessment of the situation and arrive at an unfavorable conclusion.

Hargrove.

She tapped the screen and his face appeared in the holographic display with the presence that David Hargrove managed to project through every medium available to him—grey eyes that operated at a temperature several degrees below the ambient, jaw set in the configuration that meant he had already formed a preliminary view of events and was extending the courtesy of allowing her to confirm or complicate it before he acted on that view.

"Lemay." Not a greeting. A commencement. "Hull breach. Crew casualty. System failures across multiple departments. I've had three separate reports in the last ten minutes and none of them have given me a complete picture. Give me one."

She straightened. Not performatively—it was involuntary, the specific postural response that Hargrove produced in people who had worked for him long enough, the body deciding independently that this was not a conversation to have while slouching.

“Sir. A drone was manually overridden through a buried instruction set in R.C.'s flight management code—origin traced to Sector C's relay, source currently unidentified. Tony Reeves is in surgery, cranial fracture, critical but stable. Remy Colton has the system diagnostic and is pulling a full sweep of R.C. as we speak—I've authorized taking systems offline as needed. The *No Current Results* error isn't isolated to my terminal; it's showing across propulsion, fuel compression, structural monitoring, and quantum communications. Sector C is locked down. Nobody in or out.” She paused for exactly long enough to let him process the shape of what she was about to add. “The evidence is currently consistent with deliberate, coordinated sabotage by someone with detailed knowledge of our internal systems.”

The grey eyes didn't widen. They didn't need to.

Something moved through Hargrove's stoic expression that she wouldn't have called darkening so much as consolidating—everything that had been distributed across his face collecting itself into a single, focused point of attention.

“Sabotage,” he said. Not a question. Not an exclamation. The word placed on the table between them and examined. “You're telling me there's a traitor on my station.”

“The evidence is pointing that direction, sir. We're working to make it definitive.”

He leaned toward the camera, and even through the holographic display the effect was considerable. His voice dropped into the register that wasn't loud and didn't need to be. “Then make it definitive, Lemay. I want names. I want motives. I want to know exactly what has been done and exactly how we close the gap it was done through. Yesterday would have been preferable. This mission does not fail. Are we clear?”

“Yes, sir.”

“Keep me posted. Hargrove out.”

The display winked out and she stood for a moment in the space it had occupied, breathing with the careful deliberateness of someone reminding themselves that breathing was a thing they were doing and should do. The knot in her chest that had been present throughout the conversation with Hargrove would keep. It always kept. She had learned, over the course of her career, that the knot was not a problem to be solved but a condition to be managed, like low gravity or the smell of suppression gas or the particular quality of silence that a station produced at 0400 when she was lying awake, strapped to her bed, thinking things she'd rather not be thinking.

She ran a hand through her hair and looked at Ciera.

Patricia gave her the space of a full honest second to make the decision.

"You with me on this?"

Ciera looked at the glass partition, at Tony beyond it, at the ship in the far viewport that was the reason all of them were here and the reason someone had apparently decided that today was the day to start pulling threads. Something settled in her face—not confidence exactly, but the decision to act as though confidence was available and see what happened.

"Yeah," she said. "I'm in."

"Good." Patricia moved toward the door, her boots finding the floor with their customary certainty, her mind already in Sector C and working through what she expected to find there and what she was afraid of finding there, which were not the same list. "Because whoever did this knew exactly what they were doing and exactly what they were doing it to. Which means they've been watching us." She glanced back at Ciera as the door opened onto the corridor. "I'd like to return the favor."

CHAPTER TWO

Daniel Brantley had been sitting at his desk for twenty minutes with nothing in front of him but the conversation he hadn’t started yet.

He was good at this, technically speaking — the briefings, the mission parameters, the press statements with their careful language about sacrifice and legacy and the long arc of human ambition. None of that was the problem. The problem was fifteen years old, would be home in approximately forty minutes, and had her mother's eyes and her mother's unerring talent for identifying the precise moment a person was about to disappoint her.

Seven years since Claire had packed everything that wasn’t his into a rented transport and driven south without asking him to follow. He hadn’t, in fairness, given her much reason to think he would. The departures had accumulated—months becoming years becoming the arithmetic of a marriage that eventually couldn’t carry the weight of it—and by the end she’d stopped counting missions and started counting what was left, and found less of it than she’d been prepared to accept.

Ellie didn't remember her mother crying, or had decided not to, which Daniel had decided was the same thing.

He pushed back from the desk and stood, which didn't help, and moved to the window, which didn't help either. The launch towers were visible from here on a clear day, and today was clear. There was something merciless about Florida light in the late afternoon—the way it left nothing in shadow that wanted to be in shadow—and Pad 39A sat in the full weight of it.

He looked at it for a moment. Then he turned away to make tea.

The holo-frame on his desk had been running the same loop for three years, which he was aware said something about him.

Ellie at six, in the botanical reserve outside Canaveral—the drone-bees were her idea, a birthday request he'd actually managed to be present for, and she'd spent forty-five minutes chasing them through the jasmine paths while he stood back and watched her laugh with the helpless attention of a man who understood, even then, that he was packing the memory away carefully because he expected to need it later. Her braids had swung as she ran. The Florida light had done its unrelenting work on everything. A test launch had rolled across the sky somewhere to the south, and she'd stopped, looked up, pointed, said that one with such pure uncomplicated joy that it had taken him a moment to recognize the feeling in his chest as grief.

The joy was still there, somewhere underneath the sharper edges she'd developed in the years since, but it had learned to be more careful about when it showed itself. She watched him the way she'd learned to watch him—with the patient, lateral attention of someone who had been surprised before and had made certain adjustments to her expectations. He knew the look. He'd earned it, incrementally, one departure at a time.

She would hear *ten years* and she would think: *again*. She would think: *of course*. She would think the thing she was too precise and too perceptive to say out loud, which was that she

had already done this calculation and arrived at a number she recognized, and the number was the same one her mother had arrived at, and her mother had been right.

He stood in the kitchen and waited for the kettle.

Ten years was the number, and he had stopped flinching at it, which was either equanimity or a failure of imagination he hadn't fully diagnosed yet.

The mission briefings used better language than *ten years*—they used *phased cryogenic intervals* and *operational timeline* and, in the materials designed for public consumption, *humanity's most ambitious deep-space-endeavor*, which was accurate and also the kind of phrase that looked well on a press release and meant almost nothing at the kitchen table. The ship would leave the Spillway, travel further than anything crewed had traveled before, and arrive at the object that the scientific community was still calling the Structure because naming things prematurely was a category of optimism it had learned, over the last several decades, to be cautious about. The mission would verify, document, and return. That was the shape of it. That was what his name would be attached to, in whatever annals still kept records of such things.

They had called it a legacy. Several people had called it a legacy, in several different rooms, with the rehearsed sincerity of people who are not the ones being asked to be away for a decade.

Ellie would be twenty-five when he came back, if the timeline held. He had done this math so many times that it had stopped producing any useful emotional response and had started producing a kind of flat, procedural dread instead—the sensation of a man who has run the numbers correctly and doesn't like the answer but cannot find an error in the calculation.

Through the window the launch pad sat patient as something that had already made up its mind.

The calmant tabs were where they always were, and he bypassed them the way he always did, on the private grounds that if he couldn't get through a difficult conversation without pharmaceutical assistance then the conversation had already gone badly and the tabs were just postponing the assessment.

The tea tin was older than the apartment. Carolina leaves, the embossed logo worn smooth at the edges. He measured by instinct rather than care, which produced inconsistent results and was fine. The kettle was fast—one of the few concessions to modernity he'd made without ambivalence — and the mug was chipped in a way he'd stopped noticing and then started noticing again, recently, in the way that small familiar damage became visible when you were paying attention to loss.

He stood at the counter and held the warmth in both hands and rehearsed.

It's not me leaving. He tried it, internally, with the delivery he'd been workshopping for three weeks. *It's for you. For the future we're building*. The words had seemed adequate in the drafting stage, when Ellie had been a theoretical audience rather than a specific fifteen-year-old. He turned the sentence over again, looking for the angle at which it became true enough to say out loud, and found what he'd been finding every time he tried.

The steam rose. He took a sip. Outside, somewhere to the south, something moved on a launch trajectory and was gone.

1647 on his watch. He set the mug down and did the calculation he'd been doing all afternoon, which was the same arithmetic and produced the same answer: she would be home in twenty minutes, and he had a pre-launch gala at eight that would take him away before anything was resolved if he let it, and the conversation could not wait another day because there were no

more days in which it could wait without becoming the kind of thing he'd told her from a screen, which was not something he was willing to do.

He picked up his phone and typed: *Hey, kiddo. Pizza tonight? Need to talk*. Pepperoni, her choice since she was four, a preference she'd maintained with the serene consistency of someone who had found something that worked and saw no compelling reason to complicate it. He sent it before he could revise it into something that said less.

The chime was small and crisp in the quiet apartment.

Outside, a delivery drone completed its arc to the condo block across the street with the indifferent efficiency of something that had one job and no feelings about it. The sounds of the city came through at their usual tone—the texture of coastal Florida in the late afternoon, waves and traffic and the distant, periodic suggestion of aerospace activity that residents either stopped hearing or never did. He had stopped hearing it years ago and recently started again.

The knot in his stomach was still there. He had a talent for believing, at intervals, that it had loosened, which was not the same as it actually loosening, but functioned well enough as a working substitute.

The bus brakes were a sound he knew, had known for six years in this apartment, and his body responded to them before his mind had finished deciding how it felt about that.

He was in the living room when she came through the door—her backpack first, then the rest of her, the organized chaos of a fifteen-year-old arriving home with the energy of someone who had been in institutional care for seven hours and was now technically free. The backpack hit the hardwood with a thud that said *heavy* and *careless* and *I am home now and the rules are different*. She kicked off her sneakers without looking at them. He had given up mentioning

where the sneakers were supposed to go approximately eight months ago, a surrender he'd made his peace with.

"Hey, Ell." The voice came out almost right. "How was school?"

"I guess okay." She was already moving toward the couch, braids swinging, the answer delivered with the economy of someone who had assessed the question and found it required only a minimal response. "There's this one girl. She keeps picking on me. But other than that, fine."

"Pizza's on the way," he said, and heard, the moment it left his mouth, the brightness he'd put into it—the aggressive cheerfulness of a man who has decided to begin an evening on an emotional note and is already overshooting. "Pepperoni."

She glanced at him. Just a glance, brief and lateral, the kind that didn't require her to fully stop what she was doing. Then she dropped onto the couch and pulled a holo-tablet from her bag, and the screen lit up across her face, and he stood in the doorway with his hands doing nothing useful and understood that the glance had contained more information than most people's full sentences.

He stood by the counter with the cold mug and the words that had not yet become a sentence and his pulse doing something unhelpful in his ears.

Just say it. Internal, flat, the voice he used on himself when he was stalling. *She's going to find out. She already suspects something. The longer you wait the worse the geometry of this gets*.

He cleared his throat.

Her fingers paused mid-swipe. She didn't look up. "You okay, Dad?"

"Fine," he said. "Long day."

The mug came down harder than he'd meant it to, the clink sharp against the counter. He became briefly, acutely aware of his own palms, which he wiped on his jeans in a way he hoped read as casual and almost certainly didn't.

"What's the situation with this girl?" he tried. "The one giving you trouble."

Ellie shrugged, her attention drifting back to the screen with the unhurried confidence of someone who had already finished processing the conversation she was nominally still in. "She's whatever. Keeps saying my head's in the clouds because I like space stuff." A beat, and then the smirk—brief, precise, pleased with itself. "I told her she was probably just mad because she couldn't spell *astronomy*."

He laughed for approximately one second.

Space stuff. He crossed the room and sat in the armchair across from her and said nothing for a second to let it settle.

"You're tougher than she is, Ell." He meant it, which didn't make it any less of a way to avoid the subject. "Always have been."

She didn't answer. The planet model on her tablet rotated slowly, and her brow had done the thing it did—the small furrow of concentration he'd been watching since she was four, working through puzzles he'd brought back from postings she was too young to understand the purpose of. He had been, in those years, someone whose absences she'd found exciting rather than instructive. He understood that those years were over and had been over for some time.

"Ellie." The name cracked slightly on the second syllable, which was not the opening he'd rehearsed. He coughed. "There's something I need to tell you."

Her fingers stopped. She didn't look up, but the quality of her stillness changed—the stillness of someone who has been expecting a thing and has just heard the sound of it arriving.

“What,” she said. Not a question. A bracing.

The sentences he’d built dissolved the moment he reached for them—*it’s for the future, it’s not leaving, this is bigger than both of us*—structural on paper, weightless in the room. “It’s about work,” he managed. “A mission.”

Her head came up then. The hazel eyes found his and stayed there with a steadiness that cost her something, he could see that, and the cost of it was worse than anger would have been.

“Another one.” Flat, careful, a tone that had learned to load a great deal into very few words. “How long this time?”

He held her gaze because he owed her that much. “Ten years, Ellie.” The air purifier hummed. Outside, somewhere, Florida continued its indifferent afternoon. “The Spillway mission.”

The silence that followed was the kind that didn’t need filling.

The tablet slipped from her hands and she let it go, which told him more than her face did.

“Ten years.” She said it in the way you said something you were checking for structural integrity, pressing on it to see if it held. “Like. Gone gone.”

“No. Not *gone gone*.” He leaned forward, which he recognized immediately as the wrong instinct—the physical version of the verbal scramble, closing distance to compensate for inadequate words. “It’s cryosleep, alternating cycles. I’ll be back before—”

“Before I know it.” She repeated it back to him without the question mark, and the precision of that—the exact phrase, returned to him stripped of its intended comfort—was the moment he understood the conversation had already moved somewhere he couldn’t navigate by preparation alone. “Dad. I’m fifteen.” Her hands had closed into fists on her knees, quiet and

controlled, the anger doing what the Brantley women apparently did with anger, which was contain it until it became something denser and more durable than the shouting version. “Ten years is my whole life all over again. You’re going to miss everything.”

“Ellie, I—” He stopped. Started again. “This mission, it’s enormous, it’s for the future, it’s for—”

“Don’t.” She stood, and the tablet hit the floor and stayed there. The word had come out quiet rather than loud, which was worse. “Don’t say it’s for me.” Something moved through her face—the hurt arriving behind the anger the way it always arrived, slightly too late to be hidden by it. “That’s what you said about the science fair. And my birthday. And when Mom left.”

The air purifier continued to hum.

She swiped at her eyes with the back of her wrist, quick and furious, the tears treated as a betrayal by the face producing them. “You’re just leaving again.” The voice had gone quiet in the way voices went quiet when they’d decided that volume was no longer the point. “Like always.”

He stood, hands out, the gesture meaning nothing and knowing it. “I don’t want to leave you. I hate this part, Ell. I hate it every time—”

“But it’s bigger than us,” she said. Not a question. Not even an accusation, really—just the sentence, completed, the way you completed a sentence you’d heard enough times to have memorized. She picked up her backpack from the floor. “Whatever, Dad. Enjoy your trip.”

“Ellie—”

She was already down the hall. The bedroom door didn’t slam so much as conclude.

He sat back down in the armchair and put his head in his hands and stayed there while the room settled around him, which it did, with the indifferent patience of rooms. Outside, the

delivery drone for the pizza made its approach, its navigation lights blinking their small steady rhythm against the darkening sky.

The bedroom door opened again.

She came back down the hall with her backpack still on one shoulder, sliding, and her jaw set in the configuration that meant she had not finished and had decided he needed to know that. He opened his mouth.

"No," she said, and the word landed with enough precision that he closed it again. "You don't get to do the face. You don't get to stand there like this is something that's happening to *you*. Ten years, Dad. Are you actually serious? You're not even—you're not even pretending anymore."

"That's not true," he said, and took a step toward her, which he recognized the moment he did it as the wrong instinct again. "I care, Ellie. I hate this part—every stinking time, I hate it. You think I want to miss your life?"

"Then why do you?" She had stopped moving entirely, the way she'd gone still earlier, except this time there was nothing patient about it. "You're always gone. Always. And now it's ten years? What's next, Dad? You gonna sign up to die out there so you don't ever have to come back?" He opened his mouth and found nothing in it worth saying.

"Don't say that," he said. "You don't get it, Ell. This isn't some vacation. It's my job—it's what I've worked my whole life for. It's—"

"It's why Mom left!" The volume had dropped rather than risen, which was the thing that landed. "You were never here, Dad! She told me—over and over—'Your dad's married to the stars, Ellie, not me.' And I used to defend you! I'd tell her she was wrong, that you'd come back and stay. But she was right, wasn't she? You picked space over us every time."

“That’s not fair,” he said, and stopped there, which was harder than the sentence had been. “Your mom and I—we fell apart for a lot of reasons. Not just this. You can’t put that all on me.”

“You’d leave me and she’d cry for days.” The sarcasm had gone out of it, replaced by something flatter and harder to deflect. “I’d hear her on the phone, asking you to take a desk job, to just—stay. And you never did.” She pulled in a breath that wasn’t quite steady. “I was five when she stopped waiting. Five. And I spent the next six years telling myself she was wrong about you.”

“Ellie, I didn’t choose this over—”

“Stop.” Her hands came down on the back of the couch, not a slam exactly, more a controlled landing that had enough force behind it to make the point. “Don’t tell me it was for me. Don’t tell me it was for my future. You did it because it’s what you wanted and the rest of us were the part you were sorry about.” Something moved through her voice on the last word and she pressed her lips together and waited for it to pass. “Your name on a plaque. That’s what this is. And meanwhile I’m the one explaining to people why my dad’s never there—because he’s off chasing something that might not even be real.” She looked at him, and the exhaustion in it was worse than the anger had been, the exhaustion of someone who had hoped for a different outcome and had run out of ways to manufacture one. “Mom’s gone. And now you’re gone. What am I supposed to do with that, Dad? What’s the actual answer to that question?”

“I’m not gone.” He stepped toward her. “I’m right here, I’m standing right here, trying to—”

She looked at him standing there with his hands out and said nothing, which was its own kind of answer.

Thank you for checking out Chapters One and part of Chapter Two from Aether's Reach. Chapter two was not the full chapter, as I tend to write large books. If you would like to read more of this, head over to Amazon.com and check it out on Kindle Unlimited and in paperback.

Glenn Foster