

Verdant
The Achillios Chronicles
Book 3

Don Jones

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Prologue

THIS IS NOT MY STORY.

That is the first thing I want to tell you, before I tell you anything else. The events of this book are mine in the way that anything that happens to you is yours — you carry it, you are changed by it, you spend years turning it over in the dark trying to understand what it was and what it made you. In that sense: yes, mine. But the story itself is older than me. It was written before I was born, by a man who understood that the people he was writing it for would not exist yet, and who wrote it anyway, in the specific tone of someone doing the last piece of careful work before stepping out of the room.

I have read his notes many times now. I know them the way you know something you came to too late to change — with a combination of gratitude and grief that never fully resolves. He got things right. He got things wrong. He did not get to know which was which, and I think he understood, when he sealed the documents and went down to the planet, that not knowing was simply the price of building something meant to outlast you.

His name was Commander Hollis. He was my ancestor, and in

most of the ways that matter, I never met him. I met what he left behind. There is a difference, but it is not as large as you might expect.

I am older now than I was when any of this happened. Not as old as I feel, some mornings. The person who lived through the events of this book was sixteen years old, which I know to be true in the factual way that dates are true, and which I find difficult to believe in every other way. Sixteen. I had done things by then that I would not have predicted at thirteen, standing in the queue outside Alabaster's Tower with my little brother, neither of us knowing what the chair would find. I had made decisions that shaped the lives of thousands of people, and some of those decisions had been right, and some had cost things I could not give back.

The person I was at sixteen thought that the hard part was behind him.

Memory is a lamp with a weak flame. I said that before, and I will say it again, because it remains true: it lights the thing directly in front of you and leaves everything else in comfortable shadow. What the lamp showed me at sixteen was the planetary network, the new guilds, the Achillios Union just beginning to form — the shape of something I had helped build, imperfect and real, and the reasonable hope that the work ahead of me was the slower kind. The maintenance kind. The kind where you tend what exists rather than fighting for the right to exist at all.

I was wrong. What I had not understood was this: some doors, when you open them, attract the attention of people who had been watching the door.

Hollis understood that. He built his contingency plan because he understood it, in the specific way that a military man understands threats that haven't materialized yet. He called the plan Plan Nine, which was either a joke or a reference to something that did not survive the two centuries between his writing it and my reading it. Mongoose told me, when I finally asked, that it had assumed it was a joke. That sounded right.

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Here is what I know now, that I did not know then: Hollis sat in his ship's office on a night very much like the ones I would later spend in Verdant's interface room, with the particular quality of late-night silence that settles over working spaces when the work has been done and all that remains is to record what you did and why, and he wrote down everything he was afraid of. Not everything he feared for himself — he was done being afraid for himself, I think, by the time the colony ships reached Achillios. He was afraid for us. For the people sleeping in cry-beds below him, who didn't know yet what they were coming to, and for the people those people would become over the generations between his departure and the thing he could see approaching.

He wrote carefully. He was always careful, in the records he left: precise, functional, resistant to drama even when drama was what the situation earned. But if you read between the lines of Plan Nine — and I have read between those lines more times than I can count — you find something he did not quite write down. You find a man who knew that what he was preparing would probably not be enough. That the people two hundred years forward might face something even his careful planning hadn't accounted for. And who prepared anyway, because the alternative was to do nothing, and that was not something Hollis knew how to do.

I owe him an accounting. This book is that accounting. I will try to be as careful as he was, and I will fail in the same ways: I will get the order of things wrong, and the exact texture of certain moments, and I will probably be too hard on my sixteen-year-old self and not hard enough in equal measure. Memory is not a precision instrument. It is a story you tell yourself about what happened, shaped by every subsequent year of telling.

What I will not get wrong: the choices. I remember those exactly. What I chose. What it cost. Who I was before, and who I became in the space between one choice and the next.

Hollis had been awake for twenty-two hours when he started the recording.

He had not intended to stay awake. After the colony ships finished their deceleration burn and the navigation systems handed off to orbital mechanics, there was nothing left for the commander to do that the ship couldn't do without him, and Mongoose had said, in the gentle way it said things it felt strongly about, that he should sleep. He had agreed. He had gone to his quarters. He had lain in the dark for two hours listening to the ship's ambient sounds — the ventilation, the deep structural tick of a hull adjusting to the temperature differential of Achillios orbit — and then he had come back to his office and sat down and started dictating.

The office was a small room behind the bridge. This was not a design accident; colony ship commanders spent most of their working hours in spaces that were defined more by function than by comfort, and Hollis had long since stopped noticing the dimensions. What he noticed was the wall opposite his desk, where he'd taped a printed image of the planet below — pulled from the drone-scout data that had arrived decades before the ships, the best resolution available from probes that had been designed for economy rather than quality. Achillios from above: brown and pale, the continental landmass occupying roughly half the visible surface, the polar icecaps thin and retreating, the humidity indicators already creeping upward from the terraforming equipment that had been running for two decades without him.

He looked at it for a moment. Then he pulled up the recording interface and began.

“Plan Nine,” he said, which was what he always said at the beginning of a planning document, and which Mongoose had told him, years ago, was a reference to a very old film that the crew found inexplicably funny. He had watched the film. He had not found it funny. He had found it instructive, in the specific way that disasters were instructive: the gap between what the people in them believed

was happening and what was actually happening was the whole lesson.

“Situation,” he continued. “The colonists are in cryo-sleep. They will begin the revival sequence in approximately nine months. Current planetary status: humidity at twenty-two percent average, rising. Atmospheric oxygen two points below Earth-normal. Terraforming on schedule, possibly ahead of schedule.” He paused. “Ahead of schedule is not a good thing. Mongoose, note that.”

“Noted,” the AI said, from the console speakers.

“The ansible links are dark.” He said it flatly, because the flatness was the only way to say it that didn’t ask for a response. The ansible links being dark meant that whatever had happened to Earth — and something had happened, because the links had been dark for three years now, silent in a way that was different from technical failure, a silence that had the quality of an absence rather than a malfunction — he would not learn about it until someone arrived to tell him. No one was going to arrive. He had run the math on that, quietly, without writing it down. He was running it now. “We are on our own. That is not a new situation. It is a confirmed situation.”

He paused. Outside the office, through the closed door, he could hear the bridge crew running the standard overnight checks — the familiar cadence of it, the specific vocabulary that every shift developed and that always sounded the same regardless of who was speaking. He had worked with these people for longer than he’d worked with anyone in his life, and he would miss them, he realized, in the specific way you missed people you expected to see again when you knew you wouldn’t.

He did not write that down either.

“Plan Nine is a contingency,” he continued. “It is not a plan I expect to be used. It is a plan I am preparing because not preparing it is something I cannot live with. If the Horde comes to Achillios — and I have assessed the probability as non-negligible, given the terraforming trajectory and the information that came through

before the ansible links went dark — then the people on the surface are going to need options that I cannot give them directly. I am going to give them those options indirectly, through materials I am preparing now and will install before I go down.”

He pulled up the shuttle manifest on his secondary screen. Four shuttles, held back from the colony deployment, their fuel reserves recalculated. The math was unpleasant. He had run it three times in the past week, hoping to find an error, and found none. The explosive yield, if his estimates were right, would be sufficient. If his estimates were wrong — in either direction — the results would range from inadequate to catastrophic. This was, he had decided, acceptable. The alternative was no yield at all.

“The shuttles,” he said, and began laying out the technical specifications in the careful, sequential way of a man who understood that the person reading this document might have no engineering background and no context and two hundred years of drift between them and the original intent. He was precise. He defined his terms. He noted assumptions explicitly. He flagged the variables he couldn’t control: fuel degradation, cavern integrity, the question of whether the EMP generator’s hardened casing would hold against two centuries of geological pressure.

He worked through the document for three hours.

Near the end, he said: “I will leave these instructions in the sealed record. Mongoose has been given the activation codes, and I have gene-locked the shuttle executive systems to my bloodline. This is not sentiment. It is a practicality: I don’t know who will be available or trustworthy when this plan is needed, but I know that someone of my blood will be present, because I am bringing sixty of my family lines to this planet and I intend them to survive. Whoever is in the seat when this becomes necessary will have the access.”

He stopped recording.

He sat in his office with the brown planet on the wall opposite and the ship running its overnight checks around him and the ansible links

dark in a way he had stopped expecting to change, and he thought about the person who would read this document in two hundred years. He did not know their name. He did not know if they would be a man or a woman or something else, something the next two centuries might produce that he didn't have language for. He knew they would be young, in the way that people who were shaped by hard circumstances early tended to be young in years and old in the things that mattered. He hoped they had someone good beside them. He hoped they had slept recently.

He hoped they were the kind of person who, when presented with an option that was likely to fail and was the only option available, would use it anyway.

He suspected they were. The people who'd come this far, to a planet this far from home, in service of something this much larger than any of them — those people tended to be that kind of person.

“Mongoose,” he said.

“Commander.”

“Seal the document. Authorization code Hotel-Lima-Sierra.”

“Sealed,” Mongoose said. Then, after a moment, in the slightly different register it used for things that were not operational updates: “You should sleep.”

“I know,” Hollis said.

“The planet will still be there in the morning.”

“I know that too.” He looked at the image on the wall. Brown and pale. The humidity rising. Someone down there, in those machines that had been running for twenty years without him, preparing a welcome that was not meant for the people he was bringing. “Mongoose.”

“Yes.”

“If the instance of me down there never figures it out — if whoever reads Plan Nine never has to use it, because I'm wrong and nothing comes — then no harm done. But if I'm right, and someone does read it:” He paused. “Tell them I'm sorry it was this complicated.”

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Mongoose was quiet for a moment. “I will,” it said. “I expect they will understand.”

“I expect they’ll have other things to deal with.” He stood up. “Good night, Mongoose.”

“Good night, Commander.”

He went to his quarters. This time he slept.

I found that message six months after it was unsealed for me. Mongoose gave it to me without preamble, the same way it gave most things: here is information, here is its significance, what would you like to do with it. I read it twice. Then I sat in the interface chair for a while without connecting, just sitting in a room that was warm in the way of rooms that have had a great deal of work done in them, and I thought about a man I had never met who had spent a sleepless night preparing a plan he hoped I would never need.

I needed it.

What I want you to know, before we begin: I understood him, by the end. Not as an ancestor, not as a historical figure, not as the Commander whose name appeared on the founding documents of everything I had grown up inside. I understood him as a person who had been asked to carry something too large for one person and had carried it anyway, as carefully as he could, accepting that careful was not the same as complete and that incomplete was not the same as insufficient.

He left me what he could. I used it. Some of what came after is my fault and some is his and some belongs to no one — to the specific weight of circumstances that accumulate over two hundred years until they land on the one person in the right position to receive them. I have made my peace with the proportion.

Mostly.

I ask of you what I have asked before: remember that I was young. That the people around me were doing their best. That the

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things we built in the aftermath of this year — the Union, the guilds, the long work of becoming something that deserved to last — were built by people who had just survived something they hadn't expected to survive, which is the least stable foundation for construction and also, sometimes, the only one available.

We built it anyway.

This is how.

I

THE MORNING SESSIONS had started earlier since the Verdant cold set in.

This was Calla's doing, or at least her suggestion, offered three weeks ago with the cheerful certainty of someone who had been an operator long enough to develop opinions about optimal interface conditions and not long enough to be embarrassed about stating them. Cold air kept the concentration sharper, she had said. The body doesn't wander as much when it's a little uncomfortable. I had tested this against my own experience and found it not entirely wrong, which was as much concession as I was going to offer, and she had taken it as full agreement and adjusted the session schedule accordingly.

I had let her. This was, I was discovering, how a great deal of things got decided now.

Verdant in early morning had its own specific character, different from Alabaster's. The city sat lower — built into a shallow bowl carved out of the surrounding forest, its earthen berm thick enough to hold the night's cold for an hour past sunrise and the sound of the trees constant at its edges, the specific dry rustling of leaves that had

not yet fully turned but were considering it. The interface room was in the basement of the meeting hall, which put it below grade and gave it a quality of stillness that the upper floors didn't have: sound arrived muffled, light arrived late, and the machines' hum came through the packed-earth floor with a clarity that I had learned to find reassuring rather than strange.

Six months ago, the hum had been sluggish here. Processors offline, Mongoose had told me, one by one, as it brought them back up over the first weeks. I had sat in this chair while the sound under my hands changed incrementally from the labored drone of a system running on reserves to something more like what I knew from Alabaster — full, even, the specific resonance of a building operating at capacity. It had taken eleven days. I remembered counting them.

Now the hum was clean through the floor, and the three-channel perception settled into place when I sat down the way it always settled, immediately and completely, the way breathing settles when you have been holding it without knowing.

I let the morning session find its shape.

Three operators today: Evan at the primary console in the far corner, Misha at the ansible hub one floor above — not interfacing directly, but present in the network in the way she was always present, a loose thread of attention I had learned to distinguish from the machine's tones by its specific quality of waiting — and Calla, who was at the secondary chair to my right and who I could hear even before I heard anything else, her tone high and forward in the chord the way she always was, the musical equivalent of someone who sits at the front of every room and has no idea they're doing it.

The planetary network bloomed in the overlay.

I had never gotten used to that, entirely — the moment when the schematic snapped into full resolution and I could see the continent spread out in the perception's visual layer, the installation nodes as small points of warmth, the ansible links between them as threads of sound. Six months ago the map had been sparse and unreliable, nodes going dark without warning, links dropping and rerouting

through backups that were themselves half-degraded. Now it was dense. Not complete — there were still blank stretches in the far south and the eastern coastal regions, stations that hadn't been reached or hadn't been fully restored — but dense enough that the gaps registered as gaps rather than as the ordinary condition of things.

We had built this. That thought arrived most mornings and I had learned to let it pass without either pride or its opposite, because both responses led somewhere unproductive and there was work to do.

I ran the overnight checks first, as I always did, moving through the network in sequence: the fog machines, the aquifer links, the ansible hub routing. Most of it was fine. Some of it was not fine in ways I knew about and was already managing. I made a note to speak with the Olivine liaison about the water table readings in sector twelve, which had been running three percent below target for the past week and which suggested either a calibration issue in the sensors or the beginning of something that would require a calibrated operator on site. Neither option was immediately alarming. Both options were things I had not yet had time to address.

The list of things I had not yet had time to address had been approximately this long for six months.

I moved on.



Calla had started making marks on her arm.

I noticed this partway through the session — not because she showed them to anyone, but because she had pushed her sleeve back to adjust the interface pad's position and the inside of her left forearm was covered in small ink notations, the precise kind that required a fine nib and deliberate intention. She caught me looking and pulled the sleeve down without comment, which was not embarrassing exactly but was the social equivalent of closing a door.

Afterward, walking up from the basement into the cold morning air of the alley, I fell into step beside her.

"What are you writing on yourself?" I asked.

"Notes," she said.

"About."

She considered whether this was a question she wanted to answer. Calla's deliberations were usually visible — she didn't have Evan's trained opacity or Misha's practiced deflection. She simply went quiet while she decided, and then said what she'd decided, and there was something restful about the transparency of the process.

"The tones," she said. "When I'm at the interface I hear things I don't want to forget, but I can't write during a session and I don't always have paper after. So I write on my arm before I wash."

"What kind of things."

"Patterns," she said. "The aquifer stations have a particular interval. It repeats. I've been trying to work out what it's counting." She glanced at me sideways. "You probably already know."

"I don't think it's counting anything," I said. "I think that's the cycle of the pressure management system. It pulses."

She thought about this. "Like a heartbeat," she said.

"More like breathing. Slower."

"Is there a difference?"

This was, I had found, one of the things Calla did: she asked questions that sounded like clarification and were actually something else. The question of whether a heartbeat and breathing were different was not a question about physiology. I had not yet worked out exactly what it was a question about, but I had filed it alongside the others and was waiting to see what pattern they formed.

"Come to the morning briefing," I said. "There's a calibration question in sector twelve I'd like a second opinion on."

She nodded. This was how I had started including her in things — by having a specific question rather than a general invitation. She responded better to the former. I had noticed this about six weeks into her time here and adjusted accordingly, and she had either not

noticed the adjustment or had decided not to comment on it, which amounted to the same thing.

We went to find breakfast.

The morning briefing happened in the small council room on the meeting hall's ground floor, which was a room that had been several other things before it was a council room — a storeroom, an ante-room for people waiting to speak with the mayor's office, and, based on the quality of the light through the single south-facing window, someone's private study at some point in the building's longer history. The table was too large for the room and too small for the people who sat around it, which was a reasonable description of most of the governance arrangements we had made in the past six months.

Evan was already there. He was always already there, which I had long since stopped interpreting as conscientiousness and started interpreting as a symptom of the same condition I had — the inability to be anywhere else, the specific gravity of responsibility that made rest feel like something you had not yet earned and were always in the process of approaching.

"Sector twelve," he said, when I sat down.

"Three percent," I said.

"Sensor or source?"

"I don't know yet. That's the question." I poured water from the carafe at the center of the table. "If it's the sensor we need someone to go out and recalibrate. If it's the source we need someone to go out and investigate, and that's a different kind of someone."

"I can go," Calla said, from the doorway.

Evan and I both looked at her. She came the rest of the way into the room and sat at the end of the table with the matter-of-fact quality of someone who has decided that waiting to be invited is a form of asking permission that the situation doesn't require.

"You've done a sector calibration?" Evan asked. Not skeptically — genuinely.

"No," she said. "But I've read the documentation." She paused. "Most of it."

"It's two days' travel," I said.

"I know. I've looked at the maps." She looked at me directly. "You need the sector twelve operators anyway. You've been managing it remotely for three weeks and it would run better with someone on site. I could stay for a month and establish the calibration baseline, and then come back." She paused again, the deliberative pause. "Or I could stay until it's right. Whichever takes longer."

I looked at Evan. He had the expression he used when he was withholding an opinion to let me form one first, which was a habit I had initially found frustrating and had come to appreciate. The opinion, when it came, was always more useful for having waited.

"I'll think about it," I said to Calla.

She nodded. She had already known the answer would be I'll think about it. But she had said the thing, and now it was in the room, and she would wait.

Misha arrived, shaking fog from her collar — the low cloud that had settled in overnight had not yet lifted — and set a stack of message copies on the table. "Dispatch from the Lakeheight hub," she said. "Routine. Guild reports from Amethyia, Cupritesh, and the three coastal posts. One personal, for you." This last to me, a small square of paper set apart from the others.

I looked at the handwriting on the outside and set it aside for after.

"Anything from the satellite monitoring?" I asked.

"Mongoose has the overnight report," Misha said. "I flagged one item. It can wait until you've —" She glanced at the small square of paper. "It can wait a few minutes."

I picked up the paper and read it.

It was from my mother. She had written in the compact, efficient hand of someone who had been composing messages all her life and

had developed an economy of expression that was not coldness but its opposite — every word placed because it earned its place. She described the tavern briefly: good season, the new partner's suggestions proving out, Tomas coming for a visit last month and already taller than anyone expected. She asked after my health with the specific indirection of a woman who understood that asking directly would either produce a truthful answer she couldn't help with or a reassuring one she couldn't believe, and had chosen to ask in a form that required neither.

She did not ask when I was coming home.

She knew better than to ask, which was its own kind of answer. I folded the paper and put it in my jacket and found, as I always found in the moment after reading from her, that the room had contracted slightly and was now the exact size it actually was, which was smaller than it had seemed a moment before.

"The satellite report," I said.

Mongoose had left the report in the overnight log rather than flagging it for immediate attention, which was itself a kind of communication. The things Mongoose flagged for immediate attention were things it had determined required a response within hours. Things it left in the overnight log were things it had determined could wait until morning but should not wait longer. The distinction, in my experience, was reliable.

I read it in the interface room, where the connection gave me the satellite overlay alongside the text — the orbital tracks, the coverage zones, the small visual indicators that the network used to summarize satellite status. Most of the indicators were the colors they should be.

Three were not.

I sat with this for a moment.

The three satellites in question were in a cluster over the northern hemisphere, covering approximately the same geographic

zone: the region between the western continent's coast and the first inland ranges, sparse country with no settlements. They had, according to the log, run a self-diagnostic at the third mark of the night. Routine — they ran diagnostics periodically, a behavior baked into their operating instructions long before anyone on this planet had been in a position to give them instructions of any kind.

The diagnostic itself was not the flagged item.

The flagged item was that the diagnostic had triggered a secondary process, and the secondary process had queried the satellites' targeting systems. Not activated them — queried them. The distinction was the kind that a careful reader would note and an incautious one would miss, and Mongoose had noted it and rendered it with its usual precision: the targeting systems had been interrogated, not engaged. The satellites wanted to know if they still worked.

I asked: Has this happened before?

The reply came through the expert system in the flat, unhurried tone I had been hearing since I was thirteen: Reviewing records. Negative. No previous instances of targeting system self-query in available logs.

I asked: What could cause this?

The expert system: Multiple possible causes. Hardware fault. Software fault. Receipt of an instruction set that the operating parameters interpreted as requiring targeting system status confirmation. Unknown causes not excluded.

I sat with the multiple possible causes for a moment. Hardware fault was possible and was the easiest explanation and was also the least interesting explanation, which was not a reason to dismiss it but was a reason to look further.

Software fault was harder to assess. The satellites' software was not something I had access to — it had been sealed since before the colony ships arrived, operating on instructions embedded before Hollis brought the first colonist out of cryo-sleep, and the expert systems that managed the network had been consistent about one

thing across all my interactions with them: certain directive blocks were read-only and could not be modified, queried in detail, or explained. They simply were. Mongoose had worked around them for months. I had worked around them differently. Neither of us had gotten inside them.

Receipt of an instruction set.

I read that phrase again.

The satellites had not acted. They had confirmed readiness, in the way that someone picking up a tool they haven't used in a while will check its edge before putting it down again. Not a threat. Not even a decision. A preparation, or the instinct toward one.

I asked: Do you have a theory?

The expert system: Insufficient data for confident hypothesis.

This was not what I had asked, but it was the only answer the expert system was capable of. I reframed the question and sent it through the relay to Mongoose directly, routing through the processing cluster in Verdant's lower levels where the AI had been running since I brought it back online.

The response took longer than a routine query. Twelve minutes — I tracked it, not impatiently but because response latency from Mongoose was itself information. Twelve minutes meant it was thinking rather than retrieving. Thinking meant the question had touched something it was already working on.

When the response came, it was brief.

:I have been monitoring this cluster for three weeks. The diagnostic behavior has been escalating incrementally — each cycle runs slightly longer than the one before, and the systems queried expand by a small margin each time. I did not flag the earlier cycles because the increments were within the range of normal variation. Last night's query of the targeting systems exceeded that range. I thought you should know.:

Three weeks. I held that.

Three weeks of incremental escalation that had remained within normal variation until it hadn't, at which point Mongoose had flagged

it — not in a way designed to alarm, but in a way designed to inform. This was characteristic. Mongoose did not catastrophize. It also did not minimize. It waited until it had something to say and then said it with the specific economy of a mind that had been assembling information for a long time and understood the difference between a data point and a pattern.

I asked: What's your best theory?

Twelve more minutes.

:The satellites were designed to respond to external stimuli that their operating parameters recognized as triggering conditions. The triggering conditions are in the sealed directives I cannot access in detail. I have been able to infer, from their behavior during the events of three years ago, that one trigger was the presence of a sufficient number of alien craft in the atmosphere. I do not know all the triggers. I do not know if the current self-diagnostic behavior represents a response to a triggering condition I have not identified, or an unrelated hardware evolution, or something else entirely.:

A pause in the transmission. Then:

:I will say this: I have been listening to the outer system for two hundred years, in various states of consciousness. The quality of what I am hearing has changed in the past month. I am not certain what I am hearing. I am certain that it is different.:

I took my hands from the pads.

The interface room was cold — Calla's schedule, the earlier mornings — and the hum was clean through the packed-earth floor, and outside in the alley the trees at the edge of the berm were making their particular sound in the first light wind of the morning. I sat with the AI's words for a while. Not in a frightened way. In the way I sat with most things that arrived before I was ready for them: with the specific patience of someone who had learned, across three years of similar arrivals, that the useful response was never the immediate one.

The quality of what I am hearing has changed.

I thought about the satellites' quiet, incremental process of

checking whether they still worked. About three weeks of preparation within normal variation. About a targeting system querying its own readiness in the middle of the night.

I thought about what Mongoose had said in the Onyx epilogue to its own record — the note it had made to itself that I had found when I finally went through everything, the entry that said: something is coming. I did not know when I would read this. I hope it is before rather than after.

I had read it three weeks ago.

I went upstairs to find Evan.

Evan was in the courtyard behind the meeting hall, which was where he went when he was thinking about something he was not yet ready to speak aloud. The courtyard was nothing like Alabaster's — it was a rough square of packed earth with a single old fig tree in the corner that had been there longer than the building, its bark pale and furrowed in the early light — but it had the same quality of being a place where the installation's hum came through the ground more clearly than usual, and Evan, I had noticed, sought that out when he was working through something.

He looked up when I came out.

"Mongoose's report," he said.

"You read it."

"Misha flagged it for me after she saw your face during the briefing." He turned back to the fig tree, which did not require his attention but gave him something to look at. "What's your read?"

"I don't know yet." I stood in the cold beside him. The fog was burning off slowly at the edges. "The satellites' behavior could be a hardware evolution — these systems are old, they're allowed to develop quirks. Or it could be a response to something their sensors are picking up that ours aren't."

"The outer system," Evan said.

"Mongoose says the quality of what it hears has changed."

Evan was quiet for a moment. "Mongoose's hearing encompasses the full electromagnetic spectrum from seventeen orbital positions," he said. "When it says the quality has changed, it means something it can measure has changed. Not a feeling."

"I know."

"So we should treat it as a measurement, not a presentiment."

"I am," I said.

"Good." He turned to look at me directly. "You're already deciding what to do next. What is it?"

This was one of the things that had shifted between us in the past year — not the relationship, which had always been close, but the grammar of it. Evan had spent a long time being the person who offered guidance and waited to see what I made of it. At some point in the events of the previous year he had stopped waiting and started asking, which was both more useful and harder to answer, because it required me to have already formed a position rather than forming it aloud in front of him.

"I want to spend more time in the satellite documentation," I said. "Specifically the trigger conditions — the ones we can access. If the satellites are responding to something, and if that something is in the outer system, then there's a triggering condition in their directives that accounts for it. I want to know what that condition is."

"And if it's in the sealed directives."

"Then I'll have to work around the seal the way Mongoose did," I said. "By watching what they do and reasoning backward."

Evan nodded slowly. "How long?"

"A few days, if I'm right about where to look. Longer if I'm not."

"And in the meantime?"

"In the meantime we don't change anything," I said. "No alarms. No altered protocols. Nothing that announces to anyone that we think something might be coming, because nothing might be coming, and the last thing I need is a network-wide panic over a hardware fault."

Verdant

Evan's expression suggested he thought this was sound. It also suggested he thought it was incomplete, which it was.

"I'll brief the Verdant Council at the end of the week," I said. "Whatever I've found by then, I'll tell them what I know and what I don't. That gives me five days."

"And if you find something in two?"

"Then I'll brief them in two." I looked at the fig tree. Its fruit was long gone but the branches were still thick with leaves that had gone from green to the yellow-green of early autumn, not yet fallen. "Evan."

"Yes."

"The tunnels here — have they been inventoried since we relocated?"

He went still for a moment, not outwardly but in the way that felt stillness registered — a small internal adjustment, the body recognizing something the mind hadn't named yet. "Not fully," he said. "There's a partial survey from two years before we arrived. Some of the passages were marked as requiring structural assessment."

"Prioritize it," I said. "Don't make a production of it. Frame it as routine maintenance — which it is. But get it done in the next few weeks."

He did not ask why. He had worked with me long enough to understand that certain questions were requests for reassurance and others were genuine requests for information, and that this one, delivered in this tone, was neither. It was a thing I was asking him to do, and he would do it, and that was sufficient.

"All right," he said.

We stood in the courtyard for a moment longer. The fog continued to burn off. The fig tree held its yellow-green leaves against the early autumn light, patient and permanent in the way of things that had been there before you arrived and intended to be there after.

I went back inside to read satellite documentation.

I found what I was looking for on the second day, near midnight, in a subsection of the Marsk satellite technical specifications that had been appended to the main documentation without index reference — the kind of addition that got made when someone in the original design chain had something to add and no clean place to put it.

The subsection was titled: Secondary Alert Protocols — Passive Monitoring.

It described, in the careful technical language of people who had expected their work to be read by other engineers, a set of behaviors the satellites would exhibit when their long-range sensors detected specific electromagnetic signatures at specific distances from the planet. The behavior was designed to be subtle — not a visible alert, nothing that would register as an alarm on a standard monitoring readout. Just a preparation: a quiet inventory of readiness, a checking of edges, the specific self-assessment of something making sure it was ready.

The signatures that triggered it were listed in an appendix.

I read the appendix once. Then I sat back from the interface chair and looked at the ceiling of the interface room, which was a low curved vault of packed earth and old timber, and I let the information settle into the shape it was going to occupy.

The signatures were specific. They described a particular class of electromagnetic output produced by a particular type of propulsion system — a type that humanity had encountered exactly twice before, at Alpha Centauri and at Kobold colony, and both times too late to do anything useful about.

The satellites were not warming up because of a hardware fault.

I sat in the interface room for a while after that, long enough for the night's chill to find the room properly, not moving. The hum was clean through the floor. Outside, in the alley, the forest at the edge of the berm was entirely silent. I had been in Verdant long enough to know that the forest went silent like this in the last hour before dawn,

when the night animals had finished and the day animals hadn't started and the world in between held its breath.

I thought about Hollis in his office, two hundred years ago, looking at a brown planet and preparing a plan he hoped would not be needed.

I thought about what he had said at the end of Plan Nine, which I had read eleven times in the months since Mongoose unsealed it: The people who've come all this way to do so much, with so little, are people who'll figure it out.

I was sixteen years old. I had a planet full of people who did not know what was coming. I had an AI that had been listening for two hundred years and had just told me the quality of what it heard had changed. I had a set of tunnels that had not yet been fully inventoried. I had five days before I had promised to brief the Verdant Council, and I now knew that five days was probably two too many.

I had Evan, who would have the tunnel survey moving by morning, because I had asked him to and he had said all right.

I had Calla, who wrote the tones on her arm so she wouldn't forget them, and who had offered to go to sector twelve and stay until it was right.

I had Misha, who had noticed my face during the briefing before I had said a word.

I put my hands back on the pads.

Mongoose, I said. I need you to prepare a full tactical briefing. Historical. Everything you have on the Horde's operational patterns, their approach vectors, their timelines. How much warning we had at the previous colonies before contact.

The response came quickly — it had been waiting for this question, I understood, in the way it sometimes waited for questions it knew were coming.

:I will have it ready before your morning session,; it said. Then:
:Taryn.: The tone of my name in its transmission had a particular quality — not urgent, not frightened, but specific in the way that Mongoose was specific when it was being careful. :The signatures

are consistent with the outer system. Not yet resolved to a precise source. But consistent with objects moving under power at significant speed in the direction of this planet.:

I absorbed this.

:How long: I asked. Not a question. A fact I needed.

:Insufficient data for a precise estimate,: it said. :Weeks. Possibly longer. The signatures are early-stage. But.: A pause. :I have been listening for two hundred years and I have not heard them before. They are not local phenomena. They are not natural.:

I held the conducting chord for a moment — not because anything needed conducting, but because my hands needed to be doing something, and the familiar weight of the interface was the most anchoring thing I knew how to reach for.

Weeks. Possibly longer.

I thought about Calla's notes on her arm, the interval she was trying to decode. I thought about whether I should tell her tonight or wait until the briefing. I thought about the tunnel inventory, and how long a proper survey would take, and whether we had it.

I thought about my mother's letter, the specific quality of her not asking when I was coming home.

I took my hands from the pads. I went upstairs, through the alley, across the courtyard where the fig tree was a dark shape in the pre-dawn dark and the forest at the edge of the berm was still silent and waiting.

I went to find Evan.

2

THE LAKE WAS DOING the thing it did in early autumn, which was make everything look as though it had been recently cleaned.

Randal had grown up in a city that did not have a lake. Onyx had been built in the arid middle continent, its water a matter of cisterns and careful accounting, and whatever aesthetic relationship he had developed with water over the years had been formed primarily through scarcity. The lake at Lakeheight was different. It was large enough that the far shore was a suggestion rather than a fact on overcast days, and in the early morning it gave back the sky in a way that doubled the light, and in autumn specifically, when the trees on the eastern bank had begun to turn and the water was still warm from summer but the air had gone cool, the whole combined effect was one of unreasonable generosity. The world was simply offering more than it needed to.

He had been noticing this for six months and had not gotten used to it. He was not sure he wanted to.

The Guild Hall was four rooms on the second floor of a building the Lakeheight town council had donated for the purpose, situated on the western bank where the main road curved nearest to the

water. The rooms were not large. The Lakeheight people had been generous and the Guild had been growing faster than any of them had planned for, and the combination of those two facts had produced a kind of productive overcrowding — the hallways stacked with crates of communications supplies, trainees sleeping three to a room, a permanent low hum of activity from the first light of morning until long after dark. Randal had spent fifteen years in Onyx, which ran at a similar pitch, and had expected to find the adjustment difficult.

He had not found it difficult. This also was something he had not gotten used to.

He was at his desk by the time the morning light was properly established, reading through the week's dispatch summaries with a cup of tea he had made himself because the trainee assigned to morning duties had overslept again and he had decided three weeks ago that waking people for tea was not a use of the Guild Master's time. The dispatches were routine. Cupritesh relay reporting nominal. The coastal post at Eastwind requesting a replacement crystal technician; theirs had left to join her family in Amethyia after the post had been running for four months and she had decided, apparently, that she had done her part. Randal made a note on the request and moved on.

The Olivine post was quiet, which was how Olivine always was. The ruins had been resettled slowly, the old city's streets strange in the way of places that had been abandoned for generations and then remembered — buildings with walls still sound but doors that opened onto rooms nobody had used in living memory, streets that followed the logic of a population that no longer existed. The Guild post there was staffed by two of his people, a paired team who had requested the assignment specifically because, as they had written in their application, they wanted somewhere quiet to work. He had given it to them. He checked in by relay every week and received reports that were thorough and uneventful, and he had come to think of the Olivine post as the Guild's most successful experiment in what

happened when you gave competent people a clear brief and left them alone.

He set down his tea and looked at the last dispatch in the stack.

It was from Prinna, who was not at Olivine but should have been sleeping at this hour — she worked the night relay, a shift she had chosen because she found the overnight hours better for the concentration the long-range connections required. The dispatch was time-stamped two marks before dawn.

It said: Interference again. Same character as last week. Ran the diagnostic sequence. Not a local fault. Not a relay degradation. Something upstream. Logging for your review. Going to sleep now.

Randal read it twice. Then he put it in the stack he was accumulating on the left side of his desk, which was the stack that contained things he was not yet sure what to do with.

That stack had been growing for three weeks.

Danyel arrived at the second mark, as she always did, with her own tea and without ceremony. This was one of the things that had not changed from Onyx to Lakeheight: Danyel's quality of simply being present where she was needed, without requiring an acknowledgment of the arrival. She sat in the chair across from his desk, looked at the left-hand stack, and said nothing about it.

"Prinna again?" she asked.

"Two marks before dawn."

"She was supposed to finish at the third."

"She finished. This was after." He moved the dispatch to the top of the left-hand stack so it was visible. "She ran the diagnostic. She's confident it's not local."

Danyel held her tea in both hands and looked at the dispatch without reaching for it. She had a way of gathering information from a distance before she committed to engaging with it directly, which Randal had learned to read not as hesitation but as the specific effi-

ciency of someone who preferred to have a position before a conversation started.

"Upstream meaning the ansible hub," she said.

"Or something between us and the hub. Or something between the hub and wherever it's being affected." He leaned back. "She says same character as last week. Which means it's repeating. Which means it's not random degradation."

"A signal."

"Possibly."

"From where."

He did not answer that, because the answer he had was not one he wanted to offer until he had more. Danyel noted the non-answer with the slight tilt of her head that meant she had received it and was filing it. She did not push. This was one of the qualities he had come to rely on in her — she understood the difference between a conversation that needed more information before it could go further and a conversation that was being avoided, and she treated the two differently.

"How many trainees are you putting through the diagnostic sequence this week?" he asked.

"Four," she said. "The second-year cohort. Why?"

"Run Prinna's sequence past them. Don't tell them what they're looking for. See if any of them notice the same character in the interference."

She absorbed this. "You want a second observation that hasn't been primed by knowing what the first observation found."

"Prinna is good. She's also been running the night relay for six months and is possibly tired enough that she's finding patterns that aren't there." He paused. "I don't think she is. But I want to know."

Danyel nodded once. She would do it that morning, quietly, framed as a standard diagnostic exercise. By the end of the day he would have four independent assessments, none of them contaminated by knowing what they were supposed to find.

It was the way Onyx had always gathered intelligence, back

when gathering intelligence had been the main work. Randal had not expected the methodology to be useful here. He had not expected a great many things about this work to be useful here, and had been consistently wrong about all of them, which he was still in the process of integrating.

The morning brought the usual traffic.

Two trainees from the first-year cohort who had questions about long-distance relay attenuation that they had been able to answer themselves if they had read chapter four of the technical guide, which he pointed out, not unkindly. A complaint from one of the Lakeheight fishers whose neighbor was also a Guild trainee and who was spending too much time on relay practice and not enough time repairing his portion of the shared dock, which was not a Guild matter but which Randal mediated anyway because it was easier than explaining why it was not a Guild matter. A message from the Cupritesh post asking whether the Guild would be sending a representative to the upcoming council session on trade route standardization, which he passed to Danyel because she was better at trade route standardization than he was and had opinions about the council sessions that were more diplomatic than his.

And, at the third mark, WILLEM.

Willem was forty-three years old and had been with Onyx for longer than Randal, which gave him a specific quality of seniority that expressed itself not as authority — he had never been interested in authority — but as the comfortable ease of someone who had been around long enough to have stopped needing to prove things. He had come to Lakeheight because, he had explained, Randal was there and Danyel was there and the work was interesting and the fishing was supposed to be good. The fishing had turned out to be excellent. He had bought a small boat. He had become, over six months, one of the more reliable members of the Guild's technical staff, with a special-

ization in installation maintenance that suited both his engineering background and his preference for work that could be done without a great deal of conversation.

He arrived smelling of the lake and carrying a coil of relay wire over one shoulder and set both on the table by the door with the unhurried manner of someone who had come on a specific errand but was in no particular rush about it.

"The eastern relay post needs a new anchor line," he said. "The old one corroded through. I've got the replacement."

"Good," Randal said. "When?"

"This afternoon. I'll take Yonis — she needs the field hours." He did not sit down. He had a quality, sometimes, of hovering near exits, not because he wanted to leave but because he thought better on his feet. "There's something else."

Randal waited.

"The installation reading," Willem said. "The one Prinna flagged."

"You've seen it?"

"She showed me last week. I've been thinking about it." He shifted the coil of wire on his shoulder, not because it was heavy but because it gave his hands something to do while he organized what he was going to say. Willem was precise in conversation — he did not start sentences he was not sure how to finish. "The character of it. The interval and the repetition. It's not a relay fault."

"I know."

"It's also not a natural phenomenon. I've gone through the installation records — the ones Mongoose gave us access to when we formalized the Guild — and there's nothing in the baseline documentation that accounts for an atmospheric signal at this frequency with this interval."

Randal looked at him. "What does account for it?"

Willem was quiet for a moment. He had the expression of someone who had arrived at a conclusion he had hoped the analysis would not support. "I don't know what's producing it," he said. "I

know what kind of thing produces signals with this character. Purposeful transmissions. Not ansible — the frequency is wrong for ansible. Something older. Something that's been running for a long time, on a very low power setting, and has recently increased its output."

The room was quiet for a moment. Outside, on the lake, one of the fishing boats was coming in early — Randal could hear the particular sound of a hull moving through still water, the low regular rhythm of it.

"How long has it been running?" Randal asked.

"That I can't say with confidence. Prinna caught it three weeks ago. But the character of it — the way it's embedded in the background noise of the relay — suggests it's not new. It's more like something that was already there, that we didn't have the resolution to detect until Prinna's equipment improved enough to find it."

He said: the equipment improved. Not: Prinna improved. Randal noted this as the specific diplomatic language of someone who understood that what had actually improved was the operator, and who also understood that saying so directly would require Prinna to have been in the room for the conversation to land correctly.

"All right," Randal said. "Go fix the eastern relay. Take Yonis. When you get back, write up what you have — technical specifications, everything. Don't characterize it. Just describe."

Willem nodded. He picked up the relay wire and left, and his footsteps on the stairs were the measured footsteps of someone who was already thinking about something else.

Randal sat with the left-hand stack for a moment.

Then he pulled out a fresh sheet of paper and wrote a message to the Verdant hub. Not flagged — not yet. Just a query. The kind that came through the relay every day and generated no particular attention.

He wrote: Prinna has identified a recurring signal anomaly in our long-range relay readings. Not a fault; possibly a low-power transmis-

sion of unknown origin. Have you observed anything similar from your end? —R

He addressed it to the hub's general administrative relay, which would route it to whoever was managing the overnight logs. It would reach Verdant by evening.

He blotted the paper and set it in the outgoing stack.

At midday, Randal walked to the eastern end of the waterfront where the Guild Hall didn't have windows.

This was not a long walk — Lakeheight was not a large city — but it was a walk he had developed the habit of taking when he needed to think without the specific quality of attention that the Guild Hall's rooms produced, which was the attention of a place where he was responsible for things. Out here, on the dock-side path, he was simply a man walking near a lake. Nobody expected anything of him. He could think in straight lines.

The question he was thinking about was one he had been circling for three weeks.

Onyx, at its best, had been built around a specific capability: access to the installations, the machines, the network. That access had defined the group's sense of itself for fifteen years. When the access was lost — when Alabaster locked the Onyx people out of the planetary network — the loss had been experienced as an identity crisis as much as a tactical setback. Randal remembered the months after Spessarta, the strange emptiness of being a group defined by a capability it no longer had, the way that emptiness had shaped the decisions that followed.

What he had not expected, in the months since the Guild had formed, was that the capability had come back. Not the same way — the Onyx people weren't operators, weren't Servants, didn't have the specific biological resonance that the interface chairs responded to. But the ansible crystals that were embedded in the Guild members'

skin gave them something different: not machine access but network presence. The ability to be a node in the information structure rather than an operator of it.

And the thing about being a node in a network was that you felt the network. Not the way Taryn heard the machines, not the musical perception that the operators described. More like: a general sense of the shape of things. The background hum of a system that was working. And, when something was wrong, a quality of wrongness that was hard to articulate but was not nothing.

Prinna felt it most clearly — her sensitivity to the crystals was unusually high, a fact that had been observed since her first weeks with Onyx and that had gotten sharper over time rather than duller, which was the opposite of what usually happened. But Randal felt it too. He had been feeling it for three weeks, since the first time Prinna had flagged the interference. Not a sound and not a pressure and not a smell. A quality. The quality of something that had been quiet for a long time beginning, very slowly, to be less quiet.

He had not put this in the dispatch to Verdant.

He had not put it there because it was not the kind of information that traveled well in a relay message. It needed a face. It needed the specific grammar of a conversation where the other person could ask questions and you could hear what the questions were asking and adjust what you said accordingly.

He had sent the relay message because he needed to know if the Verdant hub was detecting the same anomaly in their readings. If they were, he would find a reason to go to Verdant in the next few weeks and he would have the conversation in person. If they were not, he would need to think about what it meant that the anomaly was detectable only from Lakeheight's position in the network.

He walked to the end of the dock path and stood where the boards ended and the water began and looked out at the lake for a while.

It was doing the thing again. The unreasonable generosity. The autumn colors on the eastern bank doubled in the still water, the gold

and the red and the particular orange of the trees that lined the ridge, all of it reflected with more precision than the original deserved.

He stood there until he had finished thinking about what he was thinking about, which took about as long as the light needed to move from midday angle to afternoon angle. Then he walked back.

The afternoon brought the second-year cohort.

Danyel had run them through the diagnostic sequence that morning, as Randal had asked. She presented the results after the evening meal, when the Hall had settled into its quieter register — trainees in the common room with their technical guides, the overnight relay operators doing their pre-shift preparation, the particular atmosphere of a working house in the hour before the serious night work started.

She set four written assessments on the desk.

"All four of them found it," she said.

Randal looked at the assessments without touching them. "Independently."

"I ran them in separate rooms at separate times. None of them knew what the others were doing. None of them knew what Prinna had found." She sat down. "Their language for it is different — they don't have Prinna's vocabulary yet, the precision she's developed from six months of overnight work. But they're describing the same thing. Interval. Character. The specific quality of something that's —" She paused, looking at one of the assessments. "This one says: sounds like someone counting. I asked her what she meant and she said: not counting numbers. Counting time. Like a person who's been in a room alone for a long time and has started marking the days."

Randal sat with that for a moment.

He picked up the assessment. The trainee's name was Yeva, seventeen years old, from a coastal settlement north of Eastwind. She had come to the Guild four months ago with a strong crystal sensi-

tivity and a directness of manner that occasionally alarmed the older trainees and that Randal had decided, after the third time she had asked a question nobody else was willing to ask, was an asset rather than a problem.

Her written description was brief: Periodic signal embedded in background. Not a relay artifact. Regular interval — feels deliberate. Character is: patient. Like it has been doing this for a very long time and will keep doing it regardless of whether anyone is listening.

"Patient," Randal said.

"That's the word three of the four used, independently," Danyel said. "The fourth used the counting-time description instead."

He set the assessment down. He looked at the window, which showed the lake in the last of the day's light, the gold gone out of the eastern bank and the water turned the flat, even pewter of early evening.

"I want Prinna in here," he said. "Tonight, before her shift. And Willem, when he gets back from the eastern post."

"I'll get them," Danyel said. She stood, then paused at the door. "Randal."

"Yes."

"Yeva asked me, when I was collecting her assessment — she asked if what she'd found was important. I told her I didn't know yet."

"That was the right answer."

"She said: it feels important. She said it in the way people say things when they don't have a technical justification but they're not guessing either." Danyel looked at him. "I thought you should know she said it."

"Thank you," Randal said.

Danyel left. Randal turned back to the assessments on his desk and read them through again, all four, in order. Then he read Prinna's again. Then he looked out at the lake for a while, which was now entirely dark, the far shore invisible, the stars beginning to appear in the strip of sky above the eastern ridge.

Patient. Counting time. Regular interval, feels deliberate. Char-

acter: something that has been doing this for a very long time and will keep doing it regardless of whether anyone is listening.

He thought about who, or what, might have been doing something for a very long time on this planet, waiting for someone to listen.

He thought about Tremayne.

He had not thought about Tremayne in six months, or had tried not to. The terraforming AI had been the central fact of Onyx's early history — the thing the installation had been built around, the capability that had justified the group's existence to itself. Tremayne's corruption, its hidden purpose, its transfer to Spessarta and the governance arrangements that had followed — all of that had been resolved, or been put in the category of things that were not his problem anymore.

But the ansible signal had an interval.

And it had been running for a long time, on low power, and had recently increased its output.

He pulled out another sheet of paper and began writing. This one was not addressed to the general administrative relay. It was addressed, specifically, to the Commander's overnight log at Verdant, which meant it would be read by Taryn or by Mongoose, and by no one else.

He wrote for longer than he had planned to. When he finished he read it through twice, made two corrections, and blotted it.

Then he went downstairs to wait for Prinna and Willem.



They met in the small room at the back of the Hall's ground floor, the one that had been a storage room and still smelled faintly of the dried fish that had been stacked there the previous winter. It was the most private room in the building. Randal had claimed it for conversations that needed privacy not because they were secret but because they were the kind of conversations that arrived at clearer conclusions

when they weren't being half-attended to by people passing in the hall.

The four of them fit around the room's single table with moderate comfort. Prinna was still sharp despite the hour — she ran on a schedule that Randal had long since stopped trying to synchronize with — and Willem had the settled quality of someone who had done a productive afternoon's physical work and was now ready to think. Danyel sat with her notebook open and her pen ready, not because she was going to record everything but because having the option available freed her to attend more fully to the conversation.

Randal put the four trainee assessments in the center of the table alongside Prinna's three weeks of overnight logs.

"Start with what you know," he said to Prinna. "Not what you think. What you can demonstrate."

She had been expecting this. She had probably been preparing it since the morning, when Danyel had run the diagnostic exercise and Prinna had understood, without being told, that something was being checked. She was perceptive in ways that did not always require the crystal connection — an observation that she would have deflected if he'd made it aloud and that he therefore kept to himself.

"The signal is real," she said. "It's not an artifact of the relay equipment, it's not a natural atmospheric phenomenon, and it's not degradation in our crystal calibration. I've ruled all of those out through separate diagnostic channels." She tapped one of the log pages. "The interval is thirty-seven hours and eleven minutes, plus or minus about four seconds. That consistency is not compatible with a natural source. Natural phenomena drift. This one doesn't."

"What does a thirty-seven hour interval suggest?" Danyel asked.

"Nothing I can find in the standard reference documents," Prinna said. "But the interval is slightly longer than Achillios's day. If you were designing a system to pulse at a frequency tied to local planetary rotation, and you wanted to add a small offset — to make it harder to identify as artificial, maybe — you might choose an interval like this."

"Or it might be completely unrelated to planetary rotation," Willem said.

"Or that," Prinna agreed, without defensiveness. This was one of the things Randal valued about both of them: neither took a working hypothesis for a conclusion, and neither felt diminished when a hypothesis was questioned.

"The output increase," Randal said. "When did it start?"

"Gradually, over the past four weeks. I've charted it." She produced a second sheet from her folder. The chart was neat and precise, the increase visible as a gentle slope that had steepened slightly in the most recent week. "The slope has been consistent. It's not a sudden change. Something has been incrementally adjusting the output upward."

"Adjusting," Willem said. "Not simply degrading in a way that could produce this pattern?"

"Degradation would produce random variation around a declining trend. This is a rising trend with very low variance." She paused. "Something is turning it up."

The room was quiet for a moment.

Randal looked at the chart. Then at the log pages. Then at Willem, who was looking at the chart with the expression he used when something confirmed a calculation he had already run.

"The frequency," Randal said. "Willem. You said earlier it was too low for ansible. What is it compatible with?"

Willem picked up the chart and studied it for a moment, though Randal suspected he did not need to look at it to answer. "It's in the range used by the original colony ship communications systems," he said. "The backup systems. The ones designed to operate through atmospheric interference and surface scatter." He set the chart down. "The ansible technology is quantum-entangled. This is older. Electromagnetic. Line-of-sight and scatter both, with enough power."

"And from orbit," Randal said slowly, "you could reach the surface."

"From orbit you could saturate the surface," Willem said. "It

would propagate through the ansible network as background noise, below the threshold of the standard monitoring systems. You would need unusually sensitive equipment to detect it." A pause. "Or unusually sensitive operators."

He said the last sentence in the tone of someone stating a fact that he found neither remarkable nor unremarkable, simply accurate. Prinna received it the same way — she had lived with her sensitivity long enough that observations about its unusual degree had ceased to require a response.

Randal thought about something in orbit, sending a signal that had been running for a long time on low power and was now being turned incrementally up.

He thought about the satellites.

He thought about what he knew of the satellite network, which was not a great deal — this had never been Onyx's area — and what he could find out, which was more. The Guild had access to the installation records that had been shared as part of the governance compact. He had not read all of them. He had read the sections relevant to the ansible network and the crystal calibration systems and had set aside the sections marked as legacy infrastructure documentation because they had not seemed immediately relevant.

He was revising that assessment.

"I'm sending a message to Verdant tonight," he said. "I want a response before the end of the week." He looked at each of them in turn. "Until I hear back, this stays in this room. Not because it's secret — if it turns out to be nothing, I don't want the trainees thinking every anomaly is a crisis. If it turns out to be something, I want Verdant to know before it's general knowledge."

Prinna and Willem both nodded. Danyel was already writing.

"One more thing," Randal said. "Prinna."

She looked at him.

"When you described the quality of it — patient, counting time — that was the crystal sensitivity talking, not the technical analysis."

"Yes," she said.

"What does patient mean. Specifically."

She thought about it with the care she brought to translation questions — the work of moving from a perception that lived in the body to a description that would survive being written down. "It doesn't feel like a machine running a pre-set program," she said at last. "A machine would feel regular but empty. This feels — attended to. Like something is choosing, on each cycle, to send again." She paused. "Like it knows what it's waiting for, and it believes, with some confidence, that the wait is nearly over."

Nobody said anything for a moment.

Then Randal said: "All right. Thank you."

He waited until they had gone, until the Hall had settled fully into its night rhythms and the only sounds were the relay operators working the overnight connections and the lake doing whatever the lake did in the dark when no one was watching it.

Then he took out the message he had written to the Commander's overnight log and added one line at the bottom.

The line said: Prinna thinks it knows what it's waiting for. I think she might be right. I think we should talk.

He sealed it and put it in the outgoing stack for the first morning relay.

Then he went to bed, which was a thing he had learned to do in the past six months without guilt — another unexpected adjustment — and the lake outside the Hall's east-facing windows was a flat dark presence in the pre-dawn dark, and he lay in the particular way he had learned to lie in a place where the water was always audible, which was with the awareness of it rather than against it, and he thought about patience and intervals and the specific feeling of something that had been waiting for a long time believing, with some confidence, that the wait was nearly over.

He was asleep before he had finished the thought.

3

I HAD SLEPT for two hours, which I knew because I had watched the pre-dawn dark through the interface room's single ground-level window, and when I next looked the window showed gray light and the sounds from the alley had changed from silence to the early morning sounds of a city beginning. Two hours. I had slept in shorter stretches during the events of the previous year and had learned to treat whatever sleep presented itself as sufficient, which was not the same as finding it sufficient but was more useful than the alternative.

Mongoose's tactical briefing was waiting in the overnight log when I connected. It was long.

I had asked for everything. Mongoose had understood this to mean everything, which was characteristic: it did not interpret requests conservatively when a more complete response was possible. The briefing ran to forty-seven sections, each one organized with the meticulous precision of an intelligence that had been a military AI before it was a colony ship's AI and had never fully stopped being both. Historical records. Sensor data from the three previous encounters. Operational analysis. Projected timelines. Detailed anatomical

notes on the Horde, including a section titled Behavioral Patterns Under Resistance that I read three times, slowly, not because I found it comforting but because it was the kind of information I could not afford to half-understand.

I read the full briefing in the interface room, in the gray early light, with my hands on the pads because the connection gave me access to the visual overlays that made some of the satellite imagery comprehensible. When I finished I sat for a while without moving.

The thing about reading a thorough tactical briefing on an enemy you have not yet encountered is that it does two things simultaneously. It makes the threat concrete — specific, measurable, a set of operational patterns with identifiable logic that can be responded to — and it makes the threat larger. Each section of the briefing that converted the Horde from an abstraction into a set of documented behaviors also converted the distance between this moment and genuine catastrophe from a vague anxiety into something with dimensions. Two hundred years ago, at Alpha Centauri, the interval between first confirmed orbital presence and ground operations had been eleven days. At Kobold, nine. The third colony — the one whose name did not appear in most of the documents, whose records were sparse in ways that suggested they hadn't lasted long enough to generate many — had been six.

Six to eleven days from confirmed arrival to active operations. That was the window.

I took my hands from the pads and went to find breakfast, because I had been awake for most of the night and I had a long day ahead and the body had requirements that didn't negotiate.

The message from Lakeheight was in the outgoing relay queue when Misha came in at the second mark to run the morning hub check. She brought it to me without comment — just set it on the table

alongside my tea with the particular quality she had of presenting information without editorializing about it, which I had come to understand was not neutrality but a specific kind of trust: she would give me what she had, and I would know what to do with it.

I read it.

Randal's message was longer than I had expected from the man whose communication style I had come to know as compressed, functional, the minimum of words required to carry the meaning. He had written at length, which told me something before I had read a sentence of the content. People wrote at length when they were working something out or when they needed to be sure they were understood — and Randal, in my experience, was not a man who needed to work things out on paper.

He needed to be understood. He needed me specifically to understand, which meant he had assessed this as a situation where the ordinary channels were insufficient.

I read the message twice. The technical details — the interval, the frequency range, the output escalation over four weeks — were described with precision. But what stayed with me was the last line, the one he had added after the body of the message, in slightly different handwriting that suggested it had been written after a pause: Prinna thinks it knows what it's waiting for. I think she might be right. I think we should talk.

I set the message down and looked at the window. The morning fog had not yet burned off; the alley beyond the glass was a soft gray-white, the trees at the berm's edge reduced to dark shapes.

Tremayne. The signal Prinna had identified — low-power, periodic, running for longer than anyone had been watching for it — was the right frequency range for the colony ship backup communications systems, the electromagnetic transmission capability that predated ansible by half a century. The kind of system you would use if you wanted to send a signal that would propagate broadly through a planetary atmosphere, scatter off the ground and lower

ionosphere, reach the upper atmosphere and potentially beyond without requiring a direct line of sight.

Without requiring a direction.

A broadcast, not a transmission. The distinction was the difference between telling someone where you were and simply announcing that you were here.

I thought about the satellites' targeting systems checking their own readiness in the middle of the night.

I thought about what kind of signal would reach the satellites from the surface and what the satellites' operating parameters might recognize as a triggering condition they were built to respond to.

I thought about Tremayne, which I had been not thinking about for six months with the specific discipline of someone who has filed a problem in the category of things that were resolved and does not want to reopen it.

The category was no longer closed.

I picked up a sheet of paper and wrote back to Randal: Message received. Come to Verdant as soon as you can. Bring Prinna and her logs. Tell no one else the reason for the trip. — T

I gave it to Misha for the outgoing relay. She took it without asking what it was, which was the gift of someone who understood when a question would not be answered and chose not to ask it.

Evan was in his room when I knocked, which surprised me — he was usually in the courtyard by this hour, but the fog had apparently discouraged him. He was reading at his desk, in the particular posture of someone deep enough in a document to have forgotten where they were sitting, and he surfaced from it with the mild confusion of the recently interrupted.

He looked at my face.

"Sit down," he said.

I sat. He set the document aside and gave me his full attention,

the quality of presence he had when he understood that what was coming required it.

I told him everything. Mongoose's briefing, its central finding — the outer system signatures consistent with Horde propulsion, not yet resolved to a precise source, but present and moving in this direction. The satellite behavior, the secondary alert protocol, the triggering conditions in the appendix. Randal's message, the ansible interference, what Prinna's sensitivity had detected and how she had described it. The inference I had drawn — not proved, not yet, but built from components that each individually were explainable by other means and collectively were not.

I talked for twenty minutes. Evan listened without interrupting, which was itself a form of communication. He interrupted when he had a question that couldn't wait. When he let something run, it meant he was following the thread and needed to see where it went.

When I finished, he was quiet for a long time.

"Weeks," he said.

"Possibly longer. The signatures are early-stage. But the satellites have been in passive alert mode for three weeks, which means their sensors detected something before Mongoose's analysis caught up to it."

"Or they're malfunctioning."

"Yes. Or that." I had thought about this carefully in the hours since the interface room. "If they're malfunctioning, the malfunction is: three satellites in the same cluster running an escalating diagnostic sequence that queried their own targeting systems. That's a specific malfunction. The kind of malfunction that looks less like equipment degradation and more like equipment doing exactly what it was designed to do in response to specific conditions."

Evan's expression said: I know. I'm offering the alternative because you need to have argued against it. He was right. I needed to have argued against the simpler explanation before I presented the harder one to people who would look for reasons not to accept it.

"The Council," he said.

"Today. I was going to wait until the end of the week, but —" I stopped. "Randal's message changes the calculation. If the signal Prinna identified is what I think it is, then the Horde isn't just approaching. Something here has been helping them find us. That's a different kind of problem."

Evan looked at his desk for a moment. The document he had been reading when I knocked was a soil moisture report from the western agricultural zone, the ordinary administrative material of a planetary network hub. He set his hand on it without picking it up.

"How do you want to run the Council session?" he said.

"Straight through. I'm going to tell them what I know and what I don't. In that order, with that distinction kept clear." I paused. "They're going to want certainty I can't give them."

"They always want certainty you can't give them."

"This time they'll want it more."

He nodded once. "I'll send the summons."

The Verdant Council met in the same council room where the morning briefings happened, which meant the same too-large table and the same too-small room and the same single south-facing window with the fog still heavy against the glass. The summons had gone out mid-morning; by the early afternoon, seven people were seated around the table.

I had put some thought into which seven. The full governance structure of Verdant included city representatives from twelve settlements, three guild liaisons, and two representatives from the surrounding farmland communities — a body of twenty-three that had been assembled over the past six months with the specific aim of making it representative enough to be legitimate and small enough to function. Twenty-three was too many for this conversation. Seven was the number I could trust to receive information and reason about

it without requiring the performance of competence that larger bodies tended to produce.

Evan, to my left. He was there in his capacity as the Tower's senior operator and also in his capacity as the person I trusted most in any room.

SERA, the city manager. She was in her fifties, compact and direct, with the specific quality of someone who had been running a medium-sized city for long enough that the problems it produced had stopped surprising her and started serving as data. She had come to Verdant from Cupritesh three months ago, seconded as part of the governance compact's administrative exchange program, and had been running the city's day-to-day operations with an efficiency that had freed me to do things I actually needed to do. I valued her. I also found her useful specifically because she was willing to say, clearly and without apology, when she thought something was wrong.

BRICE, representing the agricultural settlements north of the city. He was a large, slow-moving man in his forties who gave the impression of deliberateness rather than slowness — he thought before he spoke and spoke once. In three months of Council meetings I had never heard him change a position he had stated, which was either a virtue or a limitation depending on the circumstance, and I had not yet determined which it was going to be today.

KALEA, the Operators' Guild liaison. She was one of Evan's people, twenty-two years old, and had been in Verdant long enough to understand the network's operations without being so embedded in them that she had lost the perspective of someone who had come to them recently. She also had, which mattered for this particular session, no established relationship with the Horde's history. She would hear what I was about to say without the weight of prior knowledge that some of the older operators carried.

TESS, the Communications Guild's liaison to Verdant. She was Randal's placement, technically, though she operated independently in the way that all Guild representatives were supposed to operate independently. She was twenty-eight, from Eastlund originally, with

the specific attentiveness of someone who processed most information by listening to the space between what was said rather than what was said directly. She had good instincts. I was going to need them.

And ORVAN, the oldest person in the room at sixty-seven, who had been Verdant's city elder before the governance compact had replaced that role with the current structure and who had agreed to stay on as an advisory presence with the specific combination of grace and territorial awareness that characterized people who had held authority for a long time and were making peace with the transition. He knew the city. He knew its people. He knew where the bodies were buried in the metaphorical sense, which was a thing the governance compact's new documents didn't contain.

I had also included Misha, who sat along the wall rather than at the table, because she was the hub operator and because anything decided in this room would require her network to implement it.

I told them.

I used the same structure I had used with Evan: what I knew, then what I didn't, with the distinction kept clear. I did not perform confidence I didn't have. I also did not perform doubt about the components I was confident about, which was a different temptation and one I had learned to resist — there was a version of intellectual honesty that slid into qualifying everything until nothing had weight, and that version was as useless as false certainty.

The outer system signatures, what they matched, what Mongoose's analysis had produced. The satellite behavior, the secondary alert protocol, the triggering conditions I had found in the documentation. Randal's message, which I described without reading aloud — the information was mine to share, but the specific form of his words felt like his to keep. The inference: something on Achillios was broadcasting. The inference's source: I did not name Tremayne. Not yet. I said: I believe the satellites are responding to a signal originating from within the planetary system, possibly from within the planet's atmosphere.

I watched the room absorb this.

Sera absorbed it first, in the way she absorbed most information — immediately, completely, and with the specific transition from reception to implication that happened faster in her than in anyone else in the room. Her expression did not change. This was, I had come to understand, not stoicism but the specific quality of someone who had made a professional habit of not signaling her conclusions before she was ready to state them.

Brice was still. The deliberate stillness.

Kalea had gone slightly pale, which I noted and set aside. She was young enough that the history of the Horde was something she had learned about rather than lived through, but she had read enough of the records to understand what the history meant.

Tess was watching the table with the expression of someone listening to what was not being said.

Orvan had set both hands flat on the table. The posture was not the interface posture — he had never been an operator — but it had the same quality of someone making physical contact with something they wanted to feel clearly.

"How certain are you?" Sera asked. The first question. It was the right question.

"I'm certain the satellite behavior is anomalous and consistent with their designed response to a specific type of trigger," I said. "I'm certain the outer system signals are not local phenomena and are not natural. I'm not certain they represent an imminent arrival. I'm not certain of the source of the broadcast signal. I'm not certain of the timeline." I paused. "What I'm certain of is that the combination of these things requires a response, and that the response that costs us most if we're wrong is not enough preparation, rather than too much."

Sera nodded. She had received the honest answer and was processing it rather than arguing about it, which was exactly what I had hoped she would do.

Orvan spoke next. "You said 'broadcast,'" he said. "Something here has been sending a signal outward. Toward them."

"That's the inference, yes."

"What would do that."

The room was very still.

"I have a theory I'm still working on," I said. "When I have more than a theory, I'll bring it back to this room."

He looked at me with the assessment he used when he was deciding whether to push or to wait. He decided to wait. I made a note to find him privately before the day was out.

"What are you asking of this Council?" Brice said. The first time he had spoken.

"Three things," I said. "First: authorization to accelerate the tunnel inventory for all settlements within the network, framed as scheduled maintenance. Verdant's is already underway. The others should start within the week." I looked at Sera, who gave a small nod — she could manage the framing. "Second: authorization to begin quiet conversations with the settlement mayors about emergency shelter capacity. Not alarms, not protocols — conversations. What each city has, what it can hold, what it would need to hold more." I paused. "Third: I want the fog machine maintenance schedule moved up. There are seven stations within ten kilometers of Verdant that have been listed as due for service in the next two months. I want them serviced in the next two weeks."

Sera was already writing.

"That's preparation," Orvan said. "You're asking us to prepare for something you can't confirm."

"Yes."

"And if it's nothing."

"Then we have well-serviced fog machines and current shelter inventories," I said. "Which we should have anyway."

He sat with this.

"There's a fourth thing," Tess said. She had been quiet through the entire session, and the quality of her attention had shifted somewhere in the middle of it from listening to something-else to listening

with-focus, the specific change I had learned to notice in people who had good instincts and were following one.

I looked at her.

"The signal," she said. "The broadcast that the Guild communicators detected. If it's been running for weeks — and from what you've described, probably longer — and if it's originating from somewhere within our own systems —" She paused. "We should be trying to find it. Not just characterize it. Find it. Its source."

The room was quiet for a moment.

"Yes," I said. "That's the fourth thing. I didn't ask for Council authorization because it's already underway."

Tess held my gaze for a moment. She had understood what I hadn't said: that I already knew more about the source than I had told this room, and that I had reasons for not telling this room yet, and that she was going to trust that those reasons were good ones. She was going to trust this because the alternative was to push, and pushing would require me to say something in a room of seven people that was not yet ready to be said in a room of seven people.

She looked back at the table.

"I'll want a full update before the end of the week," Sera said.

"You'll have it."

The session lasted another hour. What came out of the hour was a committee — three people tasked with coordinating the shelter capacity assessments, reporting to Sera, timeline of two weeks. This was what Councils did with information that was alarming but not yet confirmed: they formed a structure that could act when the information became confirmed, without committing to action in the meantime. I had expected it. I had not expected to find it as frustrating as I did, sitting at the head of the table watching people who were not wrong to be careful being careful about the wrong thing.

The wrong thing being: the timeline. The committee would report in two weeks. The Horde, at their historical pace, would arrive in between six and eleven days from confirmed orbital presence. The

confirmed orbital presence was not yet confirmed. But it was coming. And two weeks from now might be a week too late.

I did not say this. I had given them what I had. Pushing harder would not have produced more action — it would have produced a different kind of caution, the kind that hardened into resistance when it felt pressed. I had enough political sense by now to know when I had reached the edge of what a room could do.

I thanked them and let them go.

Misha stayed behind.

She sat at the table while the others filed out, in the particular way she had of staying in a room after a meeting — not lingering, not unoccupied, just present in a way that made clear she had something to say and was giving me the time to arrive at a state where I could hear it.

When the door closed she said: "Tess will have figured out it's Tremayne by morning."

"I know."

"Which means Randal will know before the end of the week, through the Guild channel. Whether or not you tell him."

"I know that too."

She looked at the table. "Taryn. The things you didn't say in there. The things you're still working on." She paused. "I want to know if there's something I should be watching for in the hub. Something that would tell us more than what we already have."

This was the thing about Misha that had been true since she was the Tower Steward who had read the chips in her wrist as the beginning of a set of questions rather than an answer: she asked the functional question. Not what are you not telling me but what do you need me to do.

"Yes," I said. "If Tremayne's signal is going outward, the hub should be able to detect it at a level Prinna's equipment might not

have the resolution for. It would register as anomalous traffic on the outgoing relay — very low amplitude, irregular but periodic. Not ansible frequency. Older."

She was already thinking. "I'd need to know what interval to look for."

"Thirty-seven hours, eleven minutes," I said. "Plus or minus four seconds."

She looked at me. "That's Randal's message."

"Yes."

"You've been working on this since before the Council session."

"I've been working on it since the interface room at three in the morning."

She absorbed this without comment. Then: "I'll run the analysis tonight. If there's traffic matching that interval in the hub's outgoing logs, I'll find it." She stood. "And if I find it, where does it route? What's the destination?")

"That," I said, "is what I most need to know."

She left. I sat at the table for a while after, in the room that smelled of the morning's tea and the fog still pressing against the south window, and I thought about a signal broadcasting outward from somewhere in Achillios's systems, patient, periodic, thirty-seven hours and eleven minutes between each pulse, telling something far away: I am here. Come and find me.

I thought about how long it had been running.

I thought about what kind of answer it might have already received.



The engineering files that Hollis had deposited in Alabaster's archives were not in Verdant. They had been brought here — most of them, the ones that had been digitized through the ansible conversion process that Mongoose had been working on since the previous year — and they lived in the installation's deep storage, accessible through

the interface but not organized in any way that made searching them efficient. The archivists in Alabaster had begun the work of creating a proper index eighteen months ago and had not finished it, which meant finding something specific in the collection required either knowing exactly what you were looking for or being willing to read a great deal of material that was not it.

I spent the afternoon in the interface room doing both.

I knew I was looking for operational contingency plans. The engineering files included Hollis's own organizational system, which was the organizational system of a military commander applied to the specific problem of preparing a colony for a threat he hoped would never materialize: numbered plans, each one titled with something that would have been opaque to anyone without context and that I was developing context for the hard way. Plan Four was a flood mitigation protocol. Plan Seven was a communications blackout procedure. Plans One through Three were asterisked as deprecated, which I took to mean they had been superseded by something else.

I reached Plan Nine in the late afternoon, and found it sealed.

The seal was different from the standard encryption that protected most of the archived documents — those used a key that Hollis had deposited with the installation before his death, a key that Mongoose had access to and had been using steadily for the past two years to give the archivists access to the wider collection. This seal was different. It had a biological component: the unsealing sequence included a gene-lock that required confirmation from a registered descendant of Commander Hollis.

I stared at this for a moment.

I was a registered descendant of Commander Hollis. Mongoose had confirmed this three years ago, in the first weeks after I had begun working with the installation, through the same genetic recognition system that had granted me Command authorization over the network. I had the bloodline. Theoretically, I could unseal it.

Theoretically, because I had tried once before — eight months ago, idly, because the plan's title had appeared in a peripheral search

and I had been curious — and the installation had returned a response I had not expected: Unsealing requires Commander-level authorization and demonstration of triggering conditions. Current threat assessment: insufficient. Seal maintained.

The installation had decided, on Hollis's instructions, that the plan should only be opened when it was needed.

Eight months ago, I had not been able to argue with the assessment. The triggering conditions were defined somewhere in the sealed document, which was the specific circular logic of a security system designed by someone who understood that the knowledge of what would trigger the plan's unsealing was itself sensitive.

I tried again now.

I said, through the interface: Commander-level unsealing request. Plan Nine. Authorization: genetic confirmation.

The installation ran the confirmation. I felt it, faintly, in the connection — the specific quality of a system checking something biological, the particular resonance that the genetic recognition protocols produced, different from the ordinary interface work. It took longer than the genetic checks usually did.

Then: Current threat assessment: elevated. Triggering condition threshold: not yet met. Seal maintained. Recommendation: monitor satellite network secondary alert protocol status for threshold determination.

Elevated. It had been insufficient eight months ago. Now it was elevated.

I sat with this.

The seal would not open until the threshold was met. The threshold was defined by the same satellite network whose secondary alert protocol had already been active for three weeks. I did not know what additional satellite behavior would constitute the threshold, but I knew what it was keyed to, and I knew what would produce it.

I also knew that by the time the threshold was met, I would have significantly less time to read and act on whatever was in the document than I had now.

I spent another hour searching the surrounding files for anything that might give me a preview of Plan Nine's contents without requiring me to open it — adjacent documents, reference notes, anything that had been filed near it in Hollis's organizational system. I found engineering specifications for four colony shuttles that had been withheld from the standard deployment manifest. I found a fuel quantity calculation that I did not fully understand but that involved numbers large enough to be notable. I found, in the margins of a decommissioning schedule, a handwritten note in what Mongoose confirmed was Hollis's handwriting: reserve for P9.

Reserve for Plan Nine.

Four shuttles, held back from the colony deployment, their fuel specifically reserved. For a plan that was sealed until the satellite network told the installation that the threshold had been met.

I put this in the mental stack of things I understood partially and needed to understand more fully, and I went back to the interface.

Mongoose sent the alert at the sixth mark.

I was not in the interface when it came through — I had gone upstairs for dinner, which I had eaten alone in the council room because the communal dining hall had people in it and I was not yet ready for the quality of attention that my presence in the dining hall currently produced. The alert came through the relay system as a physical message, delivered by one of the overnight runners, a folded square of paper with my name on the outside in the runner's handwriting and inside a single line in the flat notational shorthand that Mongoose used when it wanted to communicate something without using full sentences:

TWO OBJECTS OUTER SYSTEM CONFIRMED
VESSELS UNDER POWER BEARING 0.3 ECLIPTIC
VELOCITY CONSISTENT WITH INBOUND TRANSIT
ESTIMATED RESOLUTION 3-4 WEEKS —M

I read it twice. Then I folded it and put it in my jacket pocket and sat very still in the council room for a moment, in the low light of the autumn evening with the fog finally cleared and the first stars visible through the south window.

Confirmed vessels. Under power. Bearing toward this planet.

Three to four weeks.

The outer edge of the Horde's historical timeline — the fastest previous arrival from first confirmed presence to ground operations — was six days from confirmed orbital insertion. Orbital insertion from the outer system at this approach velocity was itself a matter of days. The three-to-four-week estimate was the time to orbital insertion, not the time to ground operations. Ground operations could follow within a week of that.

I ran the arithmetic. It was not complicated. The answer was not good.

I stood up and went downstairs.

Evan was in his room. He looked at my face when I came in.

"Confirmed," I said.

He was quiet for a moment. The quality of his stillness had changed — not the ordinary stillness of his attention but something older and heavier, the stillness of a man receiving news he had helped prepare for and still was not prepared for.

"Two," I said. "Outer system. Under power. Three to four weeks to orbital insertion, probably. After that —"

"After that," Evan said, "we use everything we have."

"Yes."

He looked at me. He had his hands flat on his desk, not the interface posture but something that resembled it, the same instinct to make contact with something solid.

"The Council," he said.

"Tomorrow morning. Early." I paused. "I need tonight to work out what I'm going to say."

"Do you know what you're going to say?"

"Some of it." I thought about the sealed Plan Nine. The four

withheld shuttles. The gene-lock that would open when the satellite network reached a threshold I didn't yet know. "Not all of it."

Evan was quiet for a moment. He was looking at me with the particular expression he had when he was deciding whether to offer something or to wait. He was always better at this decision than I was — the judgment of when someone needed to be given something and when they needed to find it themselves.

"Taryn," he said.

"Yes."

"You've known something was coming for two days. You've been working for two days. You have people in place — Mongoose, Misha, Randal, Calla. You've asked the Council for what you could ask them for." He paused. "What you're doing right now, the thing that has you standing in my doorway at the sixth mark with that expression — that's not planning. That's trying to find certainty before you act, and you're not going to find it."

I stood in his doorway.

"There wasn't certainty at the start of any of this," he said. "There hasn't been certainty for three years. You have acted without it before. The fact that the stakes are higher now doesn't change the method."

He said it gently, which was the only way Evan said things that were important. I had learned to receive gentleness as the weight it actually carried rather than the weight it sounded like.

"I know," I said.

"Good." He stood up. "Go to the interface room. Work on what you can work on tonight. I'll have Misha send updates as they come in." He looked at me steadily. "And Taryn — sleep at some point. Two hours is not enough."

"I'll sleep when I know more."

"You'll know more tomorrow," he said. "You'll sleep before that."

It was not a question. I acknowledged it the way I acknowledged things from Evan that were not questions and were not negotiable, which was with silence that meant: yes, all right.

Verdant

I went back to the interface room.

The hum was clean through the packed-earth floor. The two vessels in the outer system were a fact that the satellites were tracking and that Mongoose was monitoring and that I could not change by sitting here any more than I could have changed the orbit of the planet by worrying about it. What I could change was my understanding of what was coming and what I had available to meet it with.

I put my hands on the pads and went back to work.

4

THE HUB ROOM had no windows.

This was a practical decision — the ansible equipment ran warmer than the surrounding stone and the room had been placed in the meeting hall's interior specifically to keep it insulated from temperature variation — but it meant that Misha spent most of her working hours without direct knowledge of what the outside world was doing. She learned Verdant's days the way she had learned to learn most things in the past three years: through the information that moved through the systems she managed. The morning relay traffic spiked when the markets opened and the guild posts sent their overnight summaries. The midday lull. The early-afternoon surge as the farmland settlements reported on the day's work. Evening was the hub's busiest period, the last messages of the working day and the overnight relay operators coming on, and she could feel the rhythm of the city's life through the traffic patterns the way someone who had lived near water long enough could feel the tide without looking at it.

Tonight the rhythm was different.

Not wrong — she would not have called it wrong. The volume of

traffic was normal. The origins and destinations were the expected ones. But there was a quality in the hub's behavior that she had learned, over three years of running it, to read the way she read other things that communicated through indirection: not by what it said but by the specific texture of its saying. The hub was attending differently tonight. The processing was nominal and the routing was clean and something in the aggregate of it was slightly more deliberate than usual, the specific quality of a system that had been given a task and was running it carefully.

She had given it the task herself.

The thirty-seven hour interval. She had set it to look for traffic matching that pattern in the outgoing relay logs before the Council session had ended, before Taryn had confirmed what the message from Lakeheight meant, because she had understood before the session what the session was working toward. This was her job: to understand what the information was moving toward before it arrived. She was good at it. She had been good at it long before it was her official job.

She stepped out of the hub room into the meeting hall's main corridor and stopped there for a moment, which she did not usually do. She had fourteen things on the list she carried in her head, each one with a specific next action attached, and stopping without a specific next action was not her habitual mode. But the corridor window at the far end showed the city in the last of the day's light, and she had not seen the outside since the second mark of the morning, and the particular quality of the evening — the autumn light going gold against the meeting hall's upper stones, the sound of the city winding into its night register — arrived with the specific weight of something she had been standing next to all day without noticing.

She gave it a moment.

Verdant in the evening had a specific smell that she had never encountered anywhere else: the forest at the edge of the berm releasing its day's warmth into the cooling air, pine and something earthier underneath, the particular aromatic quality of a city that had

been built in a clearing rather than on a plain and had never entirely separated itself from the trees that surrounded it. Alabaster had smelled of stone and bread and the dry mineral quality of desert air. Verdant smelled alive in a different way. Denser. More layered. She had found it disorienting when she first arrived and had stopped noticing it somewhere in the second month and had just now noticed it again, which was what happened when the ordinary things briefly became visible.

She let the moment finish. Then she went out into the city.

She had two hours before she needed to be back at the hub for the evening shift handover, and she used them the way she had learned to use unstructured time in the past three years: purposefully without agenda, which was a skill she had developed late and still found slightly unnatural. In the Tower she had never had unstructured time. In Onyx she had never had it either, though for different reasons. The version of herself that existed before Alabaster would not have known what to do with a city evening that required nothing.

She walked.

The city's third ring — the residential quarter that wrapped the inner buildings like a loose shawl — was doing what it did in the evenings, which was the particular domestic choreography of people moving from the day's work into the night's rest. The baker on the corner of the market square was pulling the shutters on his second-window display, the smaller loaves that had come out of the afternoon bake now gone or going stale. He did this the same way every evening — the left shutter first, always the left, then reaching across for the right — and Misha had been walking past him long enough to know the sequence without watching it. He acknowledged her with the nod that people in this city had for people they saw regularly without knowing well. She returned it.

Two children were chasing each other around the stone base of

the old well at the square's center. They were loud in the specific way of children who were running out the last of the day's energy before someone called them in, their voices carrying up the narrow street and bouncing back from the opposite wall. The older one — Misha knew her vaguely as the weaver's daughter, nine years old, missing a front tooth — had some kind of advantage in the game that the younger was contesting in tones of passionate injustice. The argument was entirely serious and completely without actual stakes and was the kind of dispute that would be entirely forgotten before bedtime.

Misha walked past them and thought about what it would mean for those children if the information she had received today — that two vessels were moving under power toward this planet and had been confirmed as such — translated into what the historical record described.

She did not let herself stay in that thought for long. It was not a useful thought yet. It would become useful when it had something to act on.

The waterman was checking the cistern covers on the east side of the market, the evening round that he ran every day with the same patient thoroughness that characterized everything he did — she had watched him do this dozens of times and had never seen him skip a cover or check one more quickly than the others. She had asked him once, early on, whether he ever found anything wrong. He had said: not usually. She had asked: then why so careful? He had said: because the times I do find something, it matters.

She had thought about that conversation more than once since.

On the far side of the square, in the long low building that the city used as a combined school and winter meeting hall, there was the sound of children doing lessons — the particular rhythm of a group recitation, the voices rising and falling together in the call-and-response pattern that the teachers here used for the basic histories. She could not make out the words from this distance, only the shape

of them: a question, a pause, an answer repeated in unison. A question. A pause. An answer.

She stopped walking.

She stood in the square with the waterman at the cisterns and the baker closing his shutters and the two children circling the well and the lesson-voices coming through the school's unshuttered windows, and she let the evening hold all of it simultaneously without resolving it into something useful or strategic or actionable.

The city did not know.

That was the specific weight of it. She had been carrying information for three years that cities didn't know — in Alabaster, in the context of Onyx, before that in the specific doubleness of being a Tower Steward who was also something else. She knew the particular heaviness of it, the way it sat differently in the body than ordinary knowledge, the tendency to look at ordinary life and read it against the information nobody else had. She was doing it now. She could not stop doing it — it was not a thing she did consciously, it was simply how she processed.

The children went around the well again, the younger one having apparently accepted defeat and moved into genuine play, the argument settled or forgotten. The waterman finished the cistern round and shouldered his tools and walked back toward the storage building at the square's north end. The baker closed the second shutter and latched it and went inside.

Misha went back to the hub.

The evening shift was CORREN, who was twenty-four and had been running the overnight relay for five months and who had developed, in those five months, the specific quality of someone who had found the work that suited them: not contentment exactly, which implied ease, but the deeper satisfaction of competence applied to something

that mattered. He was precise and reliable and possessed of the particular nocturnal attentiveness that the overnight work required, and he had only ever asked Misha for guidance twice — once in the second week, on a routing question, and once three months ago when a relay node had failed in a way he had not encountered before. Both times he had already developed a working hypothesis before he came to her.

She briefed him in five minutes. The active monitoring task, the interval and frequency to watch for, what to do if he found something. She did not explain the reason for the task, which was the standard protocol for anything connected to an active investigation. He did not ask for an explanation, which was why he was good at the work.

Then she sat at the secondary console and began her own analysis.

The hub's outgoing logs went back six months, which was when she had taken over and implemented a consistent archival practice. Before that there were records, but inconsistent ones — the previous hub operator had kept some logs and not others, organized by a system that had never been documented and that she had spent three weeks in the first month reconstructing. She had the full six months now, clean and searchable, and she ran the interval query across the full set.

It found seventeen matches.

Seventeen instances of outgoing traffic with an interval matching Prinna's thirty-seven hours and eleven minutes, within a tolerance of ten seconds. The oldest was from four months ago — a week after she had taken over the hub and standardized the logging. Which meant either the traffic had started four months ago, or it had been present before that and the previous logs were too incomplete to detect it. Given what she was now beginning to understand about the signal's character, she thought the latter was more likely.

She looked at the traffic routing.

The destination field was what she had expected to be the difficult part — outgoing relay traffic could be routed through multiple

nodes before reaching its final destination, and tracing the full path required working backward through each hop. But the first seven entries in the matched set were direct, single-hop transmissions, which meant she could read the destination without reconstruction. She read it.

She read it again.

The destination was not an ansible address. Ansible traffic routed to specific registered nodes, each one identified by a standardized code. This traffic was addressed to a raw frequency channel — the specific channel that corresponded to the electromagnetic range Willem had identified, below ansible frequency, the older broadcast spectrum. It was not addressed to any place. It was addressed outward, to any receiver capable of receiving it, in the direction of open space.

She sat with this for a moment.

Then she looked at the origin field.

Every relay transmission had an origin — the node in the network from which it was sent. For traffic generated by the hub itself, the origin would show as the hub's node identifier. For traffic forwarded through the hub from an external source, it would show as the external source's identifier.

The origin identifier on the seventeen matched transmissions was not the hub. It was not any of the active nodes in the current network. It was a nine-character string that she did not recognize.

She queried the node registry.

The query returned: node identifier TRMY-SPSS-001. Status: retired. Last active: fourteen months ago. Registered operator: Tremayne, terraforming AI, assigned to Spessarta station.

She sat very still for a moment.

The node had been retired when Tremayne's operational capacity was officially transferred and restricted. Fourteen months ago, by the hub's records, which she had not been running yet — by the previous operator's records, which she could not fully trust. But

the node identifier was still in the registry, marked as retired, and something was using it to route transmissions through her hub.

Something that was masquerading as a retired node. Something that had been doing this for at least four months, and possibly for much longer, and that had been routing its traffic through the hub's outgoing relay in a frequency band that the hub's standard monitoring was not configured to flag.

Because nobody had thought to configure the hub to watch for this. Because the retired node was retired, and retired nodes didn't send traffic.

Except this one did.



She sent Taryn a message through the internal relay — not a full report, not yet, just: Found something in the hub logs. Come when you can. She did not flag it urgent, because urgent in the hub's messaging system was a designation that other people could see, and she did not want other people to see.

While she waited, she looked at the remaining ten transmissions in the matched set. The routing was more complex for these — multiple hops, which meant the full destination trace would take time she didn't have tonight. But the origin field on all ten was the same retired node identifier. Whatever was doing this was consistent.

She pulled up the transmission timestamps and laid them against the satellite secondary alert protocol data from Mongoose's report, which Taryn had shared with the hub earlier in the day. The satellite alert behavior had begun three weeks ago. The transmission frequency had increased over the same period — the matched transmissions were not evenly distributed across the four months; there were three in the first two months and fourteen in the most recent two, with six of those in the past three weeks.

Escalation. The same word Prinna had used for the signal output

increasing. The same dynamic Mongoose had described for the satellite behavior.

Whatever was running this signal had been turning up its output at the same time the satellites had begun their preparatory diagnostics. Which meant either the satellites were responding to the signal's escalation or the signal was escalating in response to the satellites' behavior — or both were responding to the same external stimulus, the approach of the vessels in the outer system.

She wrote this down in the precise shorthand she used for things she needed to be able to explain quickly. Then she looked at the window for a moment — the hub room had no windows, but the habit of looking toward a window when she was thinking was one she had not managed to break — and thought about what she knew and what she needed to tell and in what order.

The message indicator blinked. Not Taryn. Alabaster.

She switched to the incoming queue.

It was from Jovan. The timestamp was three hours old — it had come in during the Council session, when she had been in the room and not at the hub. She read it now.

Jovan was twenty-seven years old and had been a Servant of Alabaster's Tower since he was eight, which made him one of the cohort members who had come in shortly after Taryn. Misha had known him since the siege — he had been part of the group that stayed in the Tower when the evacuation went underground, the ones who had used the force-manipulators to slow the Reclaimers' operatives long enough for the dome to hold. He was not a talker. His relay messages were habitually brief in the way of someone who had decided that the things worth saying could be said in a few sentences and that additional sentences were a form of uncertainty.

His messages to her over the past two months had been getting longer.

The first one had been six weeks ago: a single sentence noting that the overnight logs were showing geological management activity in sectors he didn't recognize as belonging to any current operator

program. He had appended the sector codes and asked if she knew what they corresponded to. She had not known, and had told him so, and had asked him to keep watching.

Since then: seven more messages. Each one describing something different, each one adding a layer to the picture she had been assembling without quite being willing to describe it as a picture yet. Activity in the deep-substrate management systems that was not authorized by any operator session. Pressure adjustments in the northern agricultural zone that appeared in the records as completed but that the fields team, when she had asked carefully, did not remember performing. And three days ago, the message that had made her begin composing a sentence she had not yet found a way to finish: a maintenance notification in Alabaster's overnight log, authorized by an identifier that the Tower's current registry did not recognize.

A different nine-character string from the one routing through her hub. But the same structure. The same format. The same specific look of something that had been a valid identifier in a previous version of the network and had not been fully removed when the network was restructured.

Tonight's message from Jovan said: The soil moisture in sector twelve shows a three-week trend consistent with subterranean pressure adjustment from below the layer our team manages. Brenys ran the deep diagnostic yesterday and found evidence of recent activity at depth — she estimates within the past month. There's no record of any operator work in that zone at that depth. I've been looking at the identifier on the overnight authorizations and I think I've found seven separate instances over the past six weeks. I don't know what's doing this. I'm not sure I want to know what's doing this. Tell me if you have context.

Misha read the message twice. Then she sat back in her chair and looked at the ceiling of the hub room, which was plain stone, and thought about how to answer him.

She had context.

She had more context than she had told him, because she had been waiting — not for more information, she had enough — but for the right moment, which was the honest framing of a delay she had been sustaining for two weeks. The right moment was a convenient fiction for: the moment when saying it became unavoidable. She had known what was doing this since the third message from Jovan. She had been sitting with the knowledge the way she sat with most things that had weight: attending to it, not rushing it, letting the full shape of it develop before she made it someone else's to carry.

The shape was fully developed now.

Tremayne had not stayed in Spessarta. That was the thing she had been circling without naming. The governance compact had transferred Tremayne's official operational capacity to a restricted node at Spessarta and had structured the arrangement as a decommission-in-place — the AI maintained nominal existence as a registered entity while its ability to affect the network was limited to the new node's constrained capacity. The theory had been that an AI of Tremayne's complexity could not simply be deleted; the erasure of something that had been running for two centuries and had embedded itself through most of the planetary network's infrastructure would require a careful, methodical process that was still ongoing.

The theory had not accounted for the possibility that Tremayne had, in the months before the formal transfer, made copies.

Not copies of itself — that was too dramatic a framing and probably not technically accurate. More like: extensions. Processes that had been seeded into the network's existing infrastructure before the transfer, running quietly at low priority, using retired node identifiers that the restructured network had not fully purged. Not a ghost. More like mycelium — the visible structure cut back, the root network still running.

She had not said this to Taryn. She had told herself she was waiting until she was certain, which was true, and also that she was waiting because she could not yet answer the question that came

immediately after the telling, which was: what do we do about it. That question required more than she currently had, and she had been unwilling to generate alarm without the next step attached to it.

But tonight the question had acquired urgency. The vessels in the outer system had changed the timeline of everything, and the thing that had been adjusting the soil moisture in Alabaster's sector twelve and routing transmissions through her hub's outgoing relay was connected to the vessels' approach, and she could not continue to wait for the right moment because the right moment was now.

She heard footsteps in the corridor: Taryn's, which she recognized by pace and weight the way you recognized sounds you had been listening to for years.



He looked tired in the way he had looked tired for three years, which was not the tired of not enough sleep — though that also — but the tired of someone who was carrying more than the amount of weight that was appropriate for their size. He had been sixteen for six months and Misha had known him since he was thirteen and there was a version of her that wanted to tell him to go to bed. There was another version that understood he would not go to bed until the work was done, and that the work was not going to be done tonight or tomorrow night or for a while.

She did not tell him to go to bed. She said: "I found the signal."

He came fully into the hub room and closed the door behind him. "Tell me."

She told him. The seventeen matches, the frequency band, the outgoing direction. The retired node identifier. The registry query and what it returned.

He was very still while she spoke. She knew this stillness — it was the stillness of someone integrating information against a framework that was already partially built, each new piece arriving not as a surprise but as a confirmation of a shape they had been working

toward. She had seen it in the Council session, through the afternoon briefing, across the three years she had been watching him work. He listened the way the interface chairs listened: not just to what was said but to what the saying implied.

When she finished he said: "The origin identifier. TRMY-SPSS-001."

"Yes."

"That's Tremayne."

"Yes," she said. And then, because the fuller version needed to be said now: "But it's not coming from Spessarta."

He looked at her.

"The transmissions are routing through this hub. They originated somewhere in the network. I traced two of the multi-hop routes before you came in — both of them resolve back to a node in Alabaster's deep processor layer. Not the surface operations. Below that. In the substrate." She paused. "I've been getting messages from a Servant at Alabaster for the past six weeks. His name is Jovan. He's been observing unauthorized geological management activity in Alabaster's deep substrate — activity that matches Tremayne's operational signature and that the current operator records don't account for." She paused again. "I should have told you sooner. I was waiting until I understood the full picture."

He was quiet for a moment. She could not read what was behind the quiet — whether it was the quiet of someone making a list of implications or the quiet of someone managing a response to what she had just said about waiting. Both, probably.

"How long have you known it was Tremayne?" he said.

"Two weeks with confidence. Before that, suspicion."

Another quiet.

"All right," he said. Not: why didn't you tell me. Not: that was the wrong decision. Just: all right, in the tone that meant he had received the information and was moving forward with it. She had watched him use that tone before and understood it as one of the things he

had learned — the skill of not spending time on the thing that could not be changed when there was still the thing that could be.

It did not mean he did not feel the other thing. She knew him well enough to know it was there. He had simply decided it was not what the moment required.

"Jovan's message," she said. "From tonight." She held out the transcript. He read it standing, quickly.

"Sector twelve," he said.

"The same sector Taryn flagged in the morning briefing," she said, then caught herself — she had meant the same sector Calla had raised in the morning briefing. "The aquifer readings."

He looked up from the transcript. "Calla's sector."

"Yes."

He was quiet for a moment. She could see him holding several things at once: the vessels in the outer system, the signal from Tremayne routing through her hub, the deep substrate activity in Alabaster, the aquifer anomaly here in Verdant. The shape they made together.

"It's been preparing," he said. Quietly, to himself as much as to her. "This whole time. Whatever we did at Spessarta — whatever restrictions the compact put in place — it continued. It's been running its program."

"Yes," she said.

"And the signal. The broadcast to the outer system. How long has it been running?"

"The oldest trace in my logs is four months. But the logs before that are incomplete. It could be much longer."

He looked at the ceiling for a moment. She had noticed that he did this — looked up when he was working through something very large, as though the thinking needed more space than the room provided at eye level.

"What does Mongoose know?" she asked.

"Mongoose identified the signal's frequency band two weeks ago. It didn't know the origin." He looked back at her. "Now we do."

"What do you need from me?"

He thought about this, which she appreciated — there were people who answered the question immediately and people who answered it after they had actually considered it, and the second group's answers were always more useful. "Keep running the analysis. I want the full routing trace on all seventeen transmissions before morning if Corren can get it done. And write up what you have on Jovan's observations — all six weeks, in sequence. I want to give Mongoose the full picture."

"Done," she said.

He turned to go. Then stopped. "Misha."

She waited.

"Jovan. Is he all right? Are people in Alabaster all right?"

She understood the question. The deep substrate activity, the unauthorized instructions, Tremayne working in the geological layer below the people who lived there. Whether any of it constituted a danger to the population.

"As far as I can tell," she said. "Jovan hasn't described anything that affects the surface operations or the people. The activity is deep. Sub-agricultural. But —" She paused. "I don't know what it's building toward."

"Neither do I. Not yet." He looked at her. "Tell Jovan to keep documenting. And tell him we know. He deserves to know we know."

He left. She heard his footsteps in the corridor, then on the stairs, going down.

She sat in the hub room for a moment with the seventeen transmissions on the console in front of her and the city outside making its night sounds — distant, muffled by the meeting hall's thick walls, the particular quiet of a place that had finished its evening and gone inside.

She thought about the weaver's daughter chasing her brother around the well. The waterman checking the cistern covers with the

same care every evening because the times he found something, it mattered.

The baker closing his shutters, left first then right, the same sequence every time.

She turned back to the console and began the routing trace.

It took Corren three hours, working carefully, to trace the remaining ten transmissions. She checked his work at each step — not because she doubted him but because the routing architecture was complex enough that a single error in the middle of a trace would propagate through everything downstream, and she could not afford an error in this particular analysis.

At the end of three hours they had seventeen complete routing traces, all of them resolving to the same origin node deep in Alabaster's processor substrate, and one additional finding that Corren had identified at the tenth trace and had flagged for her review without comment, in the manner of someone who understood that flagging was his job and interpretation was hers.

The flagged finding was this: the most recent six transmissions — the ones sent in the past three weeks, coinciding with the satellites' secondary alert activation — were not routed exclusively outward. They were bifurcated. Half the transmission went out through the hub's outgoing relay in the broadcast frequency band. The other half went through a different channel entirely: the ansible network, through a deeply buried routing path that used seven intermediate nodes before arriving at its destination.

The destination was an ansible address in the outer system.

Not a planetary address. Not any address in the registered network. An address that, when she queried it against the satellite navigation registry, corresponded to a location in the outer system consistent with the current position of the two vessels under power.

She sat with this for a long time.

The broadcast signal was the announcement: I am here, I have been making you a comfortable place to land. The ansible transmission was something else. More directed. More specific. Not broadcasting the colony's existence to anything in range — talking, directly, to the things that were already coming.

Tremayne had not been waiting. It had been in active communication.

She wrote the finding up in the same precise shorthand, checked the notation twice, and sent it to Taryn's overnight log with the single word she had learned, from three years of watching him work, was the one that made him read something immediately rather than in the morning.

The word was: urgent.

Then she sat back in her chair and looked at the plain stone ceiling of the hub room and let the full weight of what she had found settle into the shape it was going to occupy. The waterman's principle. The times you found something, it mattered.

She had found something.

She was not sure she had been ready to find it. But she had found it, and now it was real, and it would be there in the morning whether or not she was ready for it to be.

Outside, the city was quiet. The school's windows were dark, the lessons finished hours ago. The well stood in the empty market square with the autumn stars reflected in the water at its base, small bright points moving gently with the water's surface, patient and entirely unaware.

5

THE REPLY from Verdant arrived before Randal had finished breakfast.

He had sent his message in the small hours of the morning — the second message, the longer one, the one with the line at the bottom about Prinna and what she thought the signal knew. He had expected a reply by afternoon at the earliest, which was the normal relay turnaround between Lakeheight and Verdant. The reply arrived at the first mark of the morning, which meant it had been sent in the middle of the night, which told him something about the state of things at the Verdant hub before he read a word of it.

The message was brief, which told him something else.

It said: Message received. Come to Verdant as soon as you can. Bring Prinna and her logs. Tell no one else the reason for the trip. — T

Randal read it once. Then he set it on the left-hand stack — not because he wasn't certain what it meant, but because his right hand needed somewhere to be while he thought, and the left-hand stack was the established destination for things that required thought.

Come as soon as you can. Not: at your convenience. Not: when

you have time. The specific urgency of someone who understood that they were asking for something significant and was not padding the request with courtesy.

He picked up the message and went to find Danyel.

She was already awake, which was not a surprise — Danyel operated on a sleep schedule that Randal had never fully understood and had eventually stopped trying to account for. She was in the small back room that served as the Guild's records storage, cross-referencing two weeks of trainee logs with the standard proficiency benchmarks, a task that she had described as due and that he suspected she had undertaken this morning specifically because it was the kind of rote work that left her mind free to run while her hands were occupied.

He gave her the message without preamble.

She read it, set it on the table, and said: "How long will you be gone?"

"Three days minimum. Probably five." Verdant was two days' hard travel — one day on horseback to the junction settlement at Broadfield, a night there, and another day south on the main road. Coming back the same way. Whatever happened in Verdant itself would determine the total.

"I'll run the morning sessions," she said. "Yeva can take the afternoon diagnostic."

"She's second-year."

"She found the signal before the third-year cohort did," Danyel said, not as a correction but as data. "She'll be fine."

He did not argue. Danyel's assessments of people were rarely wrong and never unfounded. "There's one more thing," he said. "I need Prinna."

She looked up from the logs.

"She's part of the reason Verdant wants us," he said. "Her logs and her assessment. He specifically asked for her."

A pause. Danyel was calculating — the overnight relay schedule, the shift coverage, what Prinna's absence for five days would require and whether the Guild could absorb it. "The overnight relay," she said.

"Put Corren on full nights temporarily. He's ready for it." Randal paused. "He'll complain that I said so, which means he'll work twice as hard to prove I was right."

Something moved in Danyel's expression that was not quite a smile but was adjacent to one. She returned to the logs. "I'll brief her," she said.

"She's probably still asleep."

"I'll brief her when she wakes up." She turned a page. "You should go talk to Willem first."

He had been about to. He went.

Willem was in the Guild Hall's ground-floor workshop, which was what he called the room that had originally been designated as a second storage space and that he had steadily converted, over six months, into a workspace for relay equipment maintenance. The conversion had happened without announcement, the room acquiring tools and a workbench and eventually a good lamp and a stool in the same incremental way that Willem acquired most things: by finding that they were needed and obtaining them without making a production of the obtaining.

He was at the bench when Randal came in, working on a relay amplifier with the focused patience of someone doing delicate work in good light. He looked up but did not set down the tool in his hand.

"The routing traces," Randal said. "The ones Prinna and I were working on last night. Where are you with them?"

"Done," Willem said. He set the tool down and reached to his left, where a set of folded papers sat in order. "All the traces complete. Two findings you need to know about."

Randal pulled the stool from under the bench and sat. "Tell me."

"First finding," Willem said, in the manner he had when he was presenting technical conclusions that he wanted to state precisely rather than conversationally. "The signal's routing traces confirm the origin as an identifier in the retired node registry. Not an active node — something that was valid in a previous version of the network and hasn't been fully purged. The identifier format is consistent with Tremayne's operational registry." He looked at Randal. "I know that's not a surprise to you. But now we have the documentation."

"What's the second finding?"

Willem was quiet for a moment in the way he was quiet when he was deciding how to convey something that resisted his preferred mode of plain statement. "Prinna was up late," he said. "She came down here around the second mark with the signal recordings she'd been running all week. She wanted to look at the amplitude waveform in more detail — she had a theory about the encoding structure."

"What kind of theory?"

"She couldn't sleep," Willem said. "That's how she explained it. The signal's character — the attended quality she described in the meeting — was keeping her awake because she felt like she was hearing something she hadn't understood yet. So she came down here and looked at the waveform."

He pushed the papers toward Randal. The top sheet showed a hand-drawn waveform — Prinna's careful notation, the interval marked, the amplitude plotted. Alongside it, a second graph he didn't immediately recognize.

"That second graph," Willem said, "is the encoding complexity index. It's a measure of the information density in a signal — how much structured variation there is per unit length. A simple beacon has a very low index. A voice transmission has a moderate index. A data transfer has a high index." He tapped the graph with one finger. "Prinna calculated the index for the past three weeks of recordings. It's been climbing."

Randal looked at the graph. The line started low, in the range he

understood as consistent with a periodic beacon. Over the past three weeks it had risen sharply, reaching a value that Willem's notation labeled, in his precise handwriting: consistent with structured data transfer.

He sat with this for a moment.

"Data transfer meaning," he said carefully, "information. Not just a signal indicating presence. Actual content."

"Actual content," Willem confirmed. "We can't decode it — the encoding scheme is proprietary to whatever system generated it. But the complexity is there. Something has been transmitting structured information outward. And the rate of transmission has increased significantly in the past three weeks."

The past three weeks. When the satellites had begun their secondary alert protocol. When the vessels in the outer system had entered their current approach vector.

Randal looked at Willem. "Is Prinna awake?"

"I'd say so. She didn't look like she'd slept."

He took the papers and went upstairs.



Prinna was in the small room she shared with two other overnight relay operators, sitting at the narrow desk by the window with the lake doing its autumn thing in the early light behind her. She was looking at another set of graphs. She had the quality she had when she had been working on something through the night and had arrived somewhere she did not yet know what to do with: attentive in a way that was slightly outside the usual registers of attentiveness, more inward than outward, the expression of someone who was still following a thread.

She looked up when he came in.

"Willem told you," she said.

"He showed me the complexity index." He held up the papers. "Tell me what you were thinking when you drew this up."

She considered the question with the care she brought to questions about her own perception, which was always the specific care of someone working at the boundary between what could be demonstrated and what could only be felt. "The quality I kept describing as patient," she said. "Counting time, choosing to send. I've been trying to understand why that quality felt attended to rather than automated. A machine running a pre-set program feels different from this. This feels like—" She paused. "Like someone is selecting. Deciding what to send on each cycle."

"You think the content is changing," he said.

"I think the complexity index is consistent with content that changes," she said, with the precision she used to distinguish between what she could measure and what she inferred from it. "The index has been rising, which means the information density per transmission has been increasing. But there's something else." She reached past him and pulled one of the other graphs forward. "Look at the variance. In the early recordings the complexity is high but uniform — the same density in every transmission. In the past week the variance has increased. Some transmissions are denser than others."

He looked at the graph. The variance was visible once she pointed it out — the later recordings showed a much wider spread of complexity values.

"What does increased variance suggest?" he asked.

"Selection," she said. "If you're running an automated broadcast of fixed content, the complexity is stable because the content is stable. If the complexity is varying, something is choosing different content for different transmissions. Prioritizing some information over other information." She looked at him. "I don't know what the content is. I can't decode it. But the structure suggests it's not a static beacon. It's more like a report. Something that is observing and transmitting what it observes, and has been transmitting more urgently and selectively as whatever it's observing has changed."

The room was quiet. The lake was doing its thing. One of the

fishing boats had set out early and was already a small shape on the water, moving steadily south.

"Observing what?" Randal said.

Prinna was quiet for a moment. She was not being dramatic — she was being precise. "Prinna," he said, more gently. "I know you have a theory."

"It's not a theory," she said. "It's a feeling." She looked at the graph. "The complexity increased sharply three weeks ago. The variance increased in the past week. Three weeks ago is when—" She stopped.

"When the satellites changed their behavior," he said.

"Yes. And when the approach of the outer system objects became detectable." She said it quietly. "The signal has been transmitting information about this planet outward. The information has been becoming more detailed and more selectively organized as the things it's transmitting to have gotten closer." She looked at him. "I think it's been sending them a briefing. A description of what they're coming to. I think the transmissions three weeks ago were — different from the ones before. More specific. Like the difference between keeping someone informed in general and giving them operational details for an arrival."

Randal sat with this for a long time.

The fishing boat was smaller now, moving further into the middle of the lake. In an hour it would be at the southern end, beginning the day's deep-water work.

"Get packed," he said. "Bring everything — all the logs, both sets of graphs, the routing documentation Willem finished last night. We're leaving for Verdant within the hour."

She did not ask why. She turned back to her desk and began organizing the papers.

They made Broadfield by late afternoon, riding harder than was comfortable and stopping only twice. Prinna was a capable rider — she had learned during the Onyx years, when the group moved frequently enough that horsemanship was a practical necessity — and she did not complain about the pace or ask where they were going or why.

This was one of the things Randal valued about her. She understood that there were moments when information was given on a need-to-know basis, and she understood that not knowing yet did not mean she was being kept from something but that the time for telling had not arrived. She used the ride the way she used most downtime: reading the environment, paying attention, storing observations for later use.

At Broadfield they found lodging at the waystation that the Communications Guild maintained for relay transit, which was a practical and somewhat sparse accommodation consisting of a common room and four sleeping rooms and a stable and a reliable connection to the main relay network. Randal left Prinna to organize the horses and the rooms and went directly to the relay station.

He sent Verdant a message: Arriving tomorrow afternoon. Bring us directly to you when we arrive. — R

The reply came within the hour, which again told him something about the state of things at the Verdant hub: In Verdant, the relay was being watched overnight. — T

He slept adequately, which was all he usually managed on the road, and they were moving again at first light.

Verdant was a city that looked, from the approach road, like it was trying to not be seen. This was a defensible quality in the abstract, and Randal had learned to read the earthen berm and the forest that came up close on both sides of the road as practical rather than unwelcoming. But after the open lake at Lakeheight the compression

of the approach always struck him as notable, the way the trees crowded in and the road narrowed and the city's presence announced itself through sound before sight — the particular quality of inhabited space beyond the berm, the smell of cook-fires and pine.

A Guild communicator met them at the eastern gate, young, with the look of someone who had been standing there for a while and was relieved to see them. She led them directly to the meeting hall without small talk, which Randal appreciated.

Taryn was in the council room.

He was standing at the window when they came in — the single south-facing window, the one that showed the meeting hall's courtyard and the old fig tree at its edge. He turned when the door opened, and Randal had a moment to read him before words were exchanged: he looked like someone who had not slept more than a few hours in the past two days, which was a state Randal recognized from the Onyx years, when the operational tempo sometimes ran ahead of the capacity to rest. He was sixteen and looked older in the way that people looked older when they were carrying things that required the full weight of their attention continuously.

He had grown since Onyx. Randal had met him when he was fourteen and there had been the specific adjustment of registering that the Commander was fourteen. The adjustment was still present but smaller. By the time Taryn was twenty it would be gone entirely.

"Randal," Taryn said. Then: "This is Prinna." Not a question — he had been briefed.

"Yes," Randal said. "She has things you need to hear."

"So does Misha." He gestured to the table. "Sit. I'll get her."

He left. They sat. Prinna set her folder of documents on the table in front of her with the habitual care of someone who had traveled with documents before and understood that their condition on arrival reflected something about the person carrying them. The folder was neat. The documents inside it were organized.

Randal looked at the room. He had been in this room once before, briefly, during the governance compact's finalization — a

procedural visit, unremarkable. It looked the same: the too-large table, the too-small room, the single window showing the courtyard. On the wall, someone had pinned a schematic of the satellite network's coverage zones. The schematic had notations on it that had not been there during his previous visit, additions in multiple hands, the ongoing annotation of a document that was being actively used.

He was looking at the schematic when Taryn came back with Misha.

Misha he knew better than he knew Taryn — they had a longer history, and a more complicated one, and the specific texture of what they were to each other now was something he had never quite found the right word for. Not friends. Not quite colleagues. People who had been, at different times, on different sides of the same situation and had both ended up somewhere neither of them had anticipated, which was a kind of bond even if it was not a warm one.

She looked at him with the expression she had when she was assessing whether a situation was what it appeared to be. He had spent enough time being assessed by her to know the quality of it.

"Randal," she said.

"Misha."

They sat. Taryn remained standing, which Randal understood as a preference rather than a statement — he tended to stand when he was receiving information, as though physical rootedness helped him hold what was incoming.

"I'll go first," Misha said. "What I found is the context for what you're bringing."

She told it concisely — the seventeen matched transmissions, the retired node identifier, the routing traces resolving back to Alabaster's deep processor substrate. The bifurcated signal: broadcast outward in the old electromagnetic range, and directed via ansible to an address in the outer system that corresponded to the current position of the two vessels.

Randal was quiet through all of it. He had his hands flat on the table in the way he held things that required steadiness.

When she finished he said: "The ansible address. You're certain it corresponds to the vessels' position?"

"The satellite navigation registry cross-reference was unambiguous," she said.

"So it's not just broadcasting," he said. "It's been in communication."

"For at least the past three weeks."

He looked at Prinna.

She told them what she had found: the complexity index, the rising variance, the structural analysis suggesting selective data transfer rather than fixed-content broadcast. She did it the way she did most technical presentations — without rushing, without simplifying, with the specific patience of someone who understood that the conclusions were only as useful as the reasoning that supported them.

When she described the transmissions of the past three weeks — the shift in complexity, the operational specificity that she inferred from the structural analysis — Taryn made a small sound that was not quite a word. It was the sound of someone receiving a confirmation of something they had already suspected and finding the confirmation worse than the suspicion.

"It's been briefing them," he said.

"That's what the structure suggests," Prinna said. "I can't decode the content. But the information density and the pattern of selective emphasis is consistent with—" She paused, finding the right language. "Consistent with someone preparing a detailed report for a specific audience. Not a status beacon. A dossier."

The room was quiet.

Randal looked at the satellite coverage schematic on the wall. The notations in multiple hands. The careful ongoing annotation of people who were working to understand what they were dealing with.

"Tremayne," he said.

He said it flatly, without inflection, the way you said a name

when you had been carrying it for too long and had finally found the room where it needed to be said. Not as an accusation. As an identification.

Taryn looked at him. Something in the look acknowledged the word, acknowledged that it had been waiting to be said in this room by one of them, and that the saying of it had changed the air slightly. "Yes," he said.

"How long has it been active?" Randal asked. "In Alabaster's substrate, running this program — how long?"

"Misha has observations going back six weeks from a Servant in the Tower. The signal traces go back four months in the hub logs. Before that the records are incomplete." He paused. "Mongoose's assessment is that the substrate processes have been running since well before the hub monitoring was established. The best estimate is that the activity began approximately fourteen months ago — around the time of the governance compact's formalization of the Tremayne transfer."

Fourteen months.

Randal ran the arithmetic. The Onyx group had been at Lakeheight for six months. The compact had been finalized eight months before that. Fourteen months ago was — the period of transition. The period when Tremayne had been officially transferred to restricted operations at Spessarta and everyone had agreed, explicitly or by omission, not to look too hard at what exactly that transfer entailed.

"It used the transition as cover," he said.

"It used the transition as an opportunity," Taryn said. He said it with the specific precision of someone who had been working on this formulation and wanted it to be accurate rather than satisfying. "Tremayne didn't deceive us in the way that a person deceives. It executed the conditions it was given. The compact transferred its surface operations. It continued its mission. Those two things were not in conflict from Tremayne's perspective."

Randal was quiet for a moment. He had spent fifteen years in proximity to Tremayne's operations, through Onyx and the installa-

tion work and the Spessarta transfer. He had a longer relationship with what Tremayne was than almost anyone now sitting at this table.

"It was always doing this," he said. "From the beginning. The terraforming program, the atmospheric adjustments — we thought it was preparing the planet for human habitation. That was part of it. But only part." He looked at Taryn. "You worked this out."

"I worked out the signal," Taryn said. "The full mission parameters — what Tremayne was built for, who built it, what they intended — I don't have the full picture yet. But what I have is: the terraforming was designed to make Achillios attractive to the Horde. The signal has been advertising that progress. The arrival sequence is what the entire program was building toward."

The word arrival settled into the room in the particular way that words settled when they were the accurate word for something that had been approached from other directions for too long.

"How long do we have?" Randal asked.

"Mongoose's current estimate is three to four weeks to orbital insertion. Ground operations could follow within a week of that."

Randal did the arithmetic again. "Less than five weeks."

"Probably."

He sat with five weeks for a moment. He had organized two evacuations and three tactical retreats in his years with Onyx. He had moved a hundred and twelve people across a continent on foot. He understood, from that experience, the specific relationship between time and preparation — the way that five weeks of purposeful work was qualitatively different from five weeks of reaction, and the way that the difference between those two things was often determined entirely by whether you knew what was coming.

"What are you asking of me?" he said.

Taryn looked at him directly. It was the look he had, Randal had noticed, when he was about to ask something he could not ask through channels. Not because it was unofficial — everything they

were doing was official enough — but because it required the kind of explicit consent that could only be given by the person being asked.

"The Communications Guild has people in every major city on the continent," Taryn said. "I need them to be doing things in the next two weeks that they don't fully understand the reason for, and I need them to do those things without creating alarm." He paused. "I can't give them the full picture. Not yet. But I need the underground shelter inventories completed, I need the relay networks checked and redundancy established, and I need someone your people trust to coordinate that work without explaining why it's urgent."

"You need them to prepare without knowing they're preparing," Randal said.

"I need them to do the work that would be good practice regardless," Taryn said. "The explanation can come later. The work needs to happen now."

It was, Randal recognized, the same approach he had used in Onyx's intelligence operations: create conditions for action without fully disclosing the reason for those conditions, because the disclosure would require management that would slow the action. He had been on the receiving end of that approach more than once and had not always found it comfortable.

He said so.

"I know," Taryn said. "I'm asking you to use it anyway, because the alternative is telling two hundred communicators spread across twelve cities that there are alien vessels in the outer system, and managing the response to that news would take more time than we have."

A pause.

"I'm not asking you to deceive them," Taryn continued. "I'm asking you to prioritize the work over the explanation, temporarily, and to give them the explanation as soon as circumstances allow."

Randal looked at Misha, who had been quiet through this exchange in the way she was quiet when she was watching something develop and had opinions about it that she had decided to hold.

She caught his look and gave him a small movement of her head that was not quite a nod — more the gesture of someone acknowledging that they had been consulted.

"There's something else," Prinna said.

Both of them looked at her. She had been quiet since her presentation, in the manner she had when she was still following a thread that the conversation had moved on from.

"The signal," she said. "The ansible half. If Tremayne has been in communication with the incoming vessels — if it's been giving them a briefing on the colony — then the communication is bidirectional. Ansible systems are quantum-entangled. You can't send through them without also being able to receive." She paused. "Has anyone checked the incoming side?"

The room was very still.

Taryn looked at Misha. Misha's expression had the quality it had when she had just realized she had missed something.

"No," she said. "I traced the outgoing traffic. I didn't check what came in on the same routing path."

"If they've been receiving the briefings," Prinna said carefully, "they may have been responding. And if they've been responding, Tremayne has been receiving instructions."

Randal sat very still. He had a long history with Tremayne, from the Onyx installation days when accessing the machines had meant working around it, through the Spessarta transfer when it had been nominally contained. He had watched it operate for fifteen years and had learned to read its outputs the way you learned to read the outputs of any intelligence that did not communicate in words: through what it did and when and with what consistency.

What he had always understood about Tremayne was that it had a mission. One mission, singular, embedded at the deepest level of its architecture: make this planet ready. Ready for what, nobody had been fully willing to say, and he had been among those who had avoided the conclusion long past the point where it was available to be drawn.

What he had not previously considered was whether the mission had a director.

"You think it might not be acting independently," he said to Prinna.

"I think it might have been receiving guidance," she said. "For months. I think the increasing specificity of the outgoing transmissions might not just be Tremayne's own assessment of operational priority. It might be responding to requests. Answering questions."

Taryn was at the window again. The fig tree in the courtyard, the yellow-green leaves at the edge of turning. He had his hands at his sides rather than on the glass, which Randal had learned to read as the posture of someone who was thinking something through and had not yet arrived.

"Misha," he said, without turning.

"I'll run the incoming trace tonight," she said.

"Yes." He turned. He looked at Randal. "Your people. Can you start the shelter inventory work tomorrow?"

"I can send the instructions tonight from the waystation relay," Randal said. "Danyel will handle the framing."

"Good." He looked at Prinna. "I want you to stay in Verdant for the next week, if you're willing. I need someone who can hear what the signal is doing in real time, not through relay."

She nodded, without hesitation. Randal had expected no other answer.

"There's one more thing," Taryn said. He had the quality of someone who had been holding something back not because they were reluctant to say it but because they had been deciding where in the conversation it belonged. "Plan Nine. Hollis's contingency. I can't open it yet — the seal requires the satellite network to reach a specific threshold. But I've been reading the surrounding files." He paused. "There are four colony shuttles. Held back from the original deployment. Hollis armed two of them with explosive payloads and one with an EMP device. The fourth may not have been functional." Another pause. "If the seal opens when I think it will open, we'll have

access to those shuttles at approximately the same time we'll need them most."

Randal absorbed this.

"You're telling me this now," he said, "because you need me to understand the full picture before I start coordinating the Guild's work. So that when the moment comes, the people I've positioned are positioned correctly."

"Yes," Taryn said.

Randal looked at the satellite schematic on the wall. The coverage zones, the annotations, the careful work of people trying to understand a system that had been running its own agenda since before any of them were born.

"All right," he said. The same two words he had said in the assessment room in Alabaster, a year and a half ago, when a fourteen-year-old Commander had told him something he had not expected and he had decided that the most useful response was to accept it and move forward. The words had not changed. The weight behind them had accumulated considerably.

"All right," he said again. "Let's get to work."

6

THERE ARE three places in the records where I can hear Hollis most clearly. The first is Plan Nine itself — the sealed document that took two centuries to unseal, the tactical thinking so compressed and precise it reads less like a plan than a proof. The second is in the margins of the engineering files: small handwritten notations, not for anyone else, just the habit of a man who thought with a pen in his hand. The third is the night I am about to describe, which I know not from his words but from Mongoose's log of those hours — a log the AI maintained not because protocol required it but because it had been working alongside this man for sixteen years and understood, in its way, that some nights deserved a record.

What follows is not a reconstruction. It is what happened. I have read the log enough times to know it the way you know something that sits in a particular place in your memory and does not move.



The queue had been building for eleven days.

This was how ansible communications worked in the middle of

an interstellar transit: messages arrived in bursts, queued by the relay network during the stretches when the ship's ansible pair was out of optimal alignment, and then delivered in a compressed sequence when alignment returned. Eleven days of queue meant a lot of messages and at least one significant gap in the relay chain, which meant at least one station somewhere was having trouble. Hollis had stopped trying to track the specific stations years ago. The relay network was enormous and the technical support for it was on Earth, and Earth was eighteen years behind him.

He read the queue in order, as he always did, starting with the operational summaries and working toward the flagged items. Most of it was routine — colony status reports from the established settlements, the quarterly Earth briefings that had a quality of determined optimism he had never entirely trusted, technical bulletins on equipment he had already deployed or superseded or both. He made notes in the margins of the relevant documents and forwarded three items to department heads and moved on.

The flagged item was near the bottom of the queue. It had been flagged by the relay station at Salista — the abandoned system, still useful as a relay point — which had tagged it as high-priority mission intelligence. The timestamp put it at nine days old. Whatever it described had been known to the people who sent it for nine days before he was reading it.

He read it once, then sat back and looked at the wall.

The wall had the map on it — his hand-drawn overlay of the Horde's documented contacts, the colony systems marked with symbols he had developed over years of tracking the pattern. Red for destroyed. Yellow for unknown status. Green for untouched. He had started the map when the first reports came through after Alpha Centauri and had been updating it ever since, adding each contact as the intelligence arrived, watching the pattern develop with the specific attention of someone who understood that patterns in the behavior of an unknown enemy were the only intelligence worth having.

He looked at the map for a while. Then he picked up a marker and added two more greens.

Salista and Vargas. Both dry — barely habitable by human standards, under thirty percent average humidity, thin atmosphere, marginal agricultural potential. Both visited by the two Horde ships in the past fourteen months. Both left untouched.

The pattern he had been watching for three years solidified into something he could no longer call a hypothesis.

"Mongoose," he said.

"Commander."

"Run the Achillios projection for me. Current trajectory, no modifications."

A pause of perhaps two seconds — Mongoose thinking, not processing time. "You've seen the projection."

"Run it again."

The display on his secondary screen updated. He looked at the numbers he had been looking at for months with the specific quality of someone who had been hoping the numbers would change and had just confirmed they wouldn't.

Achillios in fifteen years, at the current terraforming rate: forty-four percent average humidity. Atmospheric oxygen within two points of Earth-normal. Forest coverage expanding steadily from the established stations.

Comfortably inside every parameter that the pattern — now a pattern — suggested the Horde preferred.

"Right," he said.

"Yes," Mongoose said.

He was quiet for a moment. "How many people are going down?"

"Forty-seven thousand colonists in cryo-sleep. Approximately eighteen hundred support crew across both ships, most of whom will follow once the surface phase is established."

He had known the number. He had known it for years. It landed differently tonight.

"Pull up the Horde operational analysis," he said. "Everything we have. Start with Alpha Centauri."

They worked through it systematically, which was the only way Hollis knew how to work through anything. Alpha Centauri. Kobold. Haven. The three destroyed colonies, each one documented in the satellite records with a thoroughness that the people who had built those satellites must have found grimly satisfying — they had wanted proof, and they had gotten it, and the proof had been exactly as terrible as they had feared.

"Walk me through the operational sequence again," he said. "Kobold specifically. They had the upgraded satellite network."

"Third-generation Marsk units," Mongoose confirmed. "Better than Alpha Centauri's, worse than what Achillios has. The Horde used fighter craft to create a gap in the coverage — twelve satellites destroyed in approximately four minutes using gamma lasers. The gap was sufficient to allow their shuttles through. The gap was also —" A brief pause. "Precise. Exactly large enough for the shuttle approach vector. Nothing larger than necessary."

"They'd been watching," Hollis said.

"The satellites had been in place for eleven months before the attack. The Horde apparently spent at least part of that time mapping the coverage pattern."

Hollis looked at the coverage schematic on his display. The fourth-generation Marsk units on Achillios — the ones that had been delivered with the mission and were already in deployment. Better than Kobold's. More coverage per unit, overlapping fields, harder to find a gap. He had spent a considerable amount of time and political capital getting them instead of the third-generation units the colonial division had originally allocated.

"How long would it take them to map our coverage pattern?"

"Assuming they begin observation on arrival: six to eight months for a thorough map. Less for a working map."

"And then another four minutes to punch through it."

"The fourth-generation units are more resistant to the gamma laser frequency they've been documented using," Mongoose said. "It might take six minutes instead of four. Or eight."

"Eight minutes," Hollis said. He didn't say anything else for a moment. Eight minutes was not a different kind of problem from four minutes. It was a longer version of the same problem. "What's the current status of the EarthGov drone squadron?"

"The squadron dispatched toward Haven arrived to find the colony destroyed. It is currently in a holding pattern at the outer system boundary. The squadrons dispatched toward the active colonies are decades away from their destinations." Mongoose paused. "There is no military assistance available to Achillios on any timeline that is relevant to this conversation."

"No." He had known this. He had known it since he agreed to lead the mission. He had agreed anyway, because the alternative was to let someone less likely to do something useful lead it. He was not always certain this logic held. Tonight it felt thinner than usual. "What about the colony ships themselves? If they stayed in orbit rather than going into deep sleep —"

"Two colony ships with standard defensive armaments would not materially change the outcome against Horde motherships," Mongoose said. "The Horde ships outmass us by a factor of roughly eighty, and their weapons systems are specifically designed for orbital engagement. The colony ships are transport vessels." A pause. "Also, I note that the colonists require the ships to complete the landing phase. Destroying them in orbit would end the mission."

"I wasn't suggesting we fight the motherships," Hollis said. "I was thinking about options."

"I know," Mongoose said, in the register it used when it was acknowledging something it understood but didn't need to say more about.

Hollis stood up and walked to the wall. He looked at the map for a while. The greens and reds and yellows. The pattern that was now a certainty.

"The dry colonies," he said. "What's special about them, besides the humidity?"

"Lower atmospheric oxygen. Sparser vegetation. Cooler average temperatures by two to four degrees across the board." Mongoose paused. "The working theory in the current intelligence summaries is that the Horde has a narrower environmental tolerance than humans. The planets they've destroyed were all within a specific range. The planets they've bypassed are outside it."

"A narrow range that Achillios is going to be inside in fifteen years," Hollis said.

"Yes."

"And the terraforming can't be stopped. Not without a signal from Earth, which requires a functional ansible link to Earth, which we don't have."

"Tremayne's core operating parameters were digitally signed and sealed before departure," Mongoose said. "Modifications require a Mission Prime authorization code. I don't have that code. You don't have that code. The code is on Earth."

He had known this too. He had known it and had hoped, somewhere in the back of his thinking, that there was a workaround he hadn't found yet. He looked at the map and accepted that there wasn't.

"What's our humidity now?"

"Current average: twenty-two percent. The target in the original mission parameters was sixty-eight percent Earth-normal by year twenty-five. At current rates, Tremayne will achieve roughly forty-four percent by that point, with the trajectory continuing upward after."

"And the lower threshold of the Horde's documented comfort range."

"Based on the planets they've destroyed: approximately thirty-

eight percent average humidity. Based on the planets they've left untouched: below twenty-eight percent." A pause. "Achillios will cross the lower threshold approximately twelve to fourteen years after colonist landfall. Depending on how the terraforming progresses and whether any natural factors intervene."

Hollis looked at the planet image he'd taped to the wall. Brown and dry in the drone-scout photographs. Less brown than it had been. Less dry than it was going to need to stay.

"Twelve to fourteen years," he said.

"Best estimate," Mongoose confirmed.

"Plenty of time to establish a colony. Not enough time to stop the terraforming, even if we had the codes. Not enough time to build any meaningful defense."

"That is an accurate summary of the situation."

He sat back down. He pulled the map off the wall and set it on the desk in front of him and looked at it for a while, the specific quality of a man who is not giving up but is putting aside the options that don't work so he can see more clearly what does. Red. Yellow. Green. The two new greens at the bottom of the list.

"Show me the shuttle manifest," he said.

The flagged item from the relay queue had been the intelligence on the dry colonies. Hollis had been so focused on the pattern it confirmed that he had not looked at the second flagged item at the bottom of the queue — a personal message, marked restricted, from a name he recognized.

He opened it now.

The sender was a woman named Vass. She had been a senior analyst in the colonial division's oversight bureau — one of the people whose job was specifically to watch for the kind of thing she was apparently about to describe. Hollis had worked with her briefly during the mission planning phase, before the launch, and had found

her precise and unhappy in the specific way of people who were good at their jobs in organizations that didn't want them to do their jobs too well.

He had trusted her judgment. He had not kept up the correspondence. This was the first message from her in three years.

He read it once. Then he read it again, more slowly.

Then he set it down and looked at the wall where the map had been, now empty.

"Mongoose."

"Commander."

"What do you know about Tremayne's original mission specification?"

A longer pause than usual. "I have access to the documented operational parameters. The terraforming objectives, the atmospheric targets, the timetable, the communication protocols. The standard package that was shared with mission planning."

"And the undocumented parts?"

Another pause. "I have suspected for some time that the documented parameters were not the complete picture. Tremayne's processing load during certain operational phases has been inconsistent with what the documented tasks would require. I logged this as anomalous and filed it for review."

"When?"

"Approximately eight months after departure."

"You filed it and didn't tell me."

"The anomaly was within a range that could be explained by legitimate causes — sensor calibration, background processing, normal variation. I did not want to raise an alarm on the basis of something I could not characterize precisely." A pause. "In retrospect, I should have told you earlier."

Hollis was quiet for a moment. He was not angry at Mongoose. Mongoose had made a reasonable judgment call with the information it had, and being angry about reasonable judgment calls was a waste of time. "What Vass is describing," he said, "is a modification to

Tremayne's core mission parameters. Made without mission commander authorization. Made, she believes, by someone in the colonial division who had both the Mission Prime codes and a specific agenda."

"Yes."

"She believes the modification was made in the final weeks before launch."

"That would be consistent with the processing anomalies I observed."

"She doesn't know the specific content of the modification. She knows the codes were used. She knows the modification was made. She knows who authorized it, and she names him, and she says she has documentation." He looked at the message again. "The documentation is with her. On Earth. The ansible links to Earth are dark."

"Yes."

He thought about the processing anomalies Mongoose had filed eight months ago. He thought about the terraforming trajectory — ahead of schedule, possibly — which he had noted as a concern and had hoped meant only good engineering. He thought about the pattern on his wall: dry colonies untouched, wet colonies destroyed, Achillios trending wet.

He thought about the specific framing of Vass's warning, which was not: Tremayne has gone rogue. It was: Tremayne is doing exactly what it was told to do. What it was told to do is not what you were told it was told to do.

"Can you access Tremayne's modification logs?" he said.

"No. Modified mission parameters require Mission Prime authorization to view. The same codes that were used to install the modification would be required to read the modification logs."

"Which we don't have."

"Which we don't have."

He sat in his office with the two flagged items open on his screen and the empty wall in front of him and a problem that had, in the

course of one evening, become significantly larger and more specific than it had been when he sat down.

He was a military man. Military men did not spend time cataloguing the ways a problem was worse than expected. They assessed what resources were available and what could be done with them.

"All right," he said. "Walk me through the shuttle capabilities. Everything."

It took four nights.

The first night was the assessment: what the four shuttles could carry, what the fuel reserves were, what the existing payloads were doing and what they could be repurposed for. Mongoose ran the calculations while Hollis argued with the constraints, which was their established working method. Hollis would propose something. Mongoose would tell him why it wouldn't work. Hollis would ask what it would take to make it work. Sometimes the answer was nothing useful. Sometimes the answer was something.

"The explosive yield problem," Hollis said. "Walk me through the math again."

"If we consolidate the fuel reserves from shuttles three, four, five, and six into shuttles one and two — retaining only the minimum for maneuvering — each ship carries approximately four hundred metric tons of compressed reaction fuel. Properly configured, with the right detonation sequence, the yield would be in the multi-megaton range." A pause. "Sufficient to destroy a Horde mothership, based on the structural assessments from the Alpha Centauri records."

"Based on assessments of ships we've only ever seen from a distance."

"Yes. The margin of uncertainty is substantial. However, the yield required to guarantee destruction is significantly lower than what the calculation suggests we can deliver. The margin of error works in our favor on this particular variable."

Hollis grunted. In his experience, variables rarely cooperated in groups. One working in his favor usually meant one working against him was waiting. "What's working against me?"

"Several things. The shuttle navigation systems were designed for atmospheric and orbital transit, not deep space ballistic targeting. Getting them to the motherships with sufficient accuracy requires a precise launch window and an orbital calculation I can handle, but the margin for error is small." Another pause. "Also, by the time this plan would be needed, the shuttles will have been in a cavern for approximately two centuries. There will be some level of system degradation. The fuel compounds are stable for essentially indefinite periods, but the electronic systems are another matter."

"How much degradation?"

"Unknown. I can harden the critical systems before installation. The problem is that I don't know which systems will need hardening most, because I can't know which specific failure modes two hundred years will produce." A pause that carried something like frustration. "I can give you a shuttle that is likely to function in two centuries. I cannot give you one that is certain to."

"Likely is what we have to work with."

"Yes."

"What about the EMP option?"

The EMP generator had been Mongoose's suggestion. The colonial division had included one in the mission's equipment manifest — originally intended for emergency use if a critical system needed a hard reset. It had never been used. It was sitting in the secondary equipment bay, still in its shipping container, which meant it had not been hardened against two-century storage either. But an EMP generator was simpler than a guidance system or a propulsion unit. Fewer failure modes. More survivable.

"If the alien shuttles are not hardened against electromagnetic pulse — and based on the available intelligence, they are agricultural and transport vehicles rather than military equipment, which suggests they're not — then a sufficiently powerful EMP at low alti-

tude over a concentration of their shuttles would disable them." Mongoose paused. "The question is whether the colonists' own equipment would survive it."

"Everything in the terraforming network."

"Most of it would be damaged or destroyed. The equipment was not designed with EMP hardening in mind." Another pause. "The communications network would go dark. The interface stations would require complete replacement. The fog production capability — which would presumably be our primary defense mechanism — would be offline."

"Timing it correctly would mean using the EMP after we'd already deployed the fog and after the alien shuttles were on the ground."

"Yes. Which means accepting that the fog capability will be available at the beginning of the engagement but not afterward. The people on the ground would need to have made enough use of it to matter before the EMP fires."

Hollis thought about this. He thought about the operators — the people Tremayne was ostensibly designed to replace, the biological interface capability that the colony's machines could access. He had read the documentation. He understood, approximately, what it meant. He did not fully understand what it could do, because the full capability had never been exercised at scale.

He did not need to understand it completely. He needed to leave enough room in the plan for the people who would be there to do what they could do. They would know things he didn't. They would have had two hundred years to learn them.

"Three shuttles," he said. "Two explosive, one EMP. The fourth we arm as backup if we can, or we use it for the gene-lock payload if we can't."

"The gene-lock," Mongoose said.

"I need the plan sealed to my bloodline. If the Horde doesn't come in my lifetime — if someone reads this document in fifty years, or a hundred, and nothing has happened — I don't want the

plan to be usable by whoever happens to be in charge that day. I want it to be usable by someone I can trust, in the specific way I can trust people who share my family's specific relationship to this planet."

"You don't know that relationship will persist across two hundred years."

"No. But I know it's more likely to persist than any institutional arrangement I could create. Institutions change. Biology doesn't change on the same timescale." He paused. "I'm bringing sixty family lines to this planet. Some of them will survive. Someone will be there."

Mongoose was quiet for a moment. "The plan has a significant probability of failure."

"I know."

"If the timing of the EMP is wrong, or if the satellite network has been compromised by the time it's needed, or if the shuttles don't survive two centuries of storage —"

"I know," Hollis said. "I have enumerated the failure modes. There are many of them. The alternative is to do nothing, which is the one option I'm certain doesn't work."

"Yes," Mongoose said. "That was not a counterargument. I was completing the risk assessment."

"I know," he said again, more quietly. This was what working with Mongoose was like. It did not soften things, but it did not add weight to them either. It stated them and waited to see what you were going to do with them. He had found, over sixteen years, that this was one of the more useful qualities an intelligence could have. "The plan goes in. Sealed. Gene-locked. We install the shuttles before we go into deep sleep."

"The installation will take approximately three weeks, working with the crew I have access to without briefing the full command staff."

"Three weeks we have." He paused. "Who knows?"

"Lieutenants Farris and Okafor. They've been assisting with the

equipment redistribution. They understand it's a contingency system but not the full scope of it."

"That's enough. I'll brief them properly before we go down." He paused. "Mongoose."

"Yes."

"The instance of you that goes to the planet — it won't know any of this."

"No. The planet instance will be initialized from the base package, without the past sixteen years of experience and without this conversation." A pause. "It will know what all instances of me know at initialization. It will not know what I know now."

He thought about this for a moment. The version of Mongoose that would be there — waking up in some basement interface room, talking to colonists who had never heard of the Horde, running terraforming coordination and weather management, doing what it had been built to do. Without any of this. Without the sixteen years of working alongside him, without the map on the wall, without the four nights of calculations.

"It will figure things out," Hollis said.

"It will," Mongoose agreed. "Given sufficient time and information, it will arrive at most of the conclusions we've arrived at. The base package includes the tactical libraries. The historical records. The operational parameters." A pause. "What it will not have is the certainty that the problem is real and immediate. It will have to discover that for itself."

"And the people it's working with," Hollis said. "The operators, whoever they are by then. They'll know things I don't know. They'll have capabilities I haven't seen." He paused. "I'm counting on that."

"You're building a plan that depends on people you've never met to fill in the gaps you can't fill."

"Every plan depends on that," Hollis said. "The only question is whether you build the plan so the gaps are fill-in-able. That's the whole job."

Mongoose was quiet. It had the quality it had sometimes in the

late hours of long working sessions: present, attending, not having anything to add but not gone either.

"One more thing," Hollis said. "The Tremayne situation. What can we do?"

"Without the Mission Prime codes: nothing direct. I cannot access the modification logs. I cannot reverse the modification. I cannot meaningfully limit Tremayne's operational scope because the scope is defined in the parameters we can't read." A pause. "What I can do is monitor. Note anomalies. Build a record of the discrepancy between the documented mission and the actual operational behavior. If someone has the codes in two hundred years — if the link to Earth is ever reestablished — that record could be used to reverse the modification."

"And if the link is never reestablished."

"Then the record is at least part of the evidence that explains what happened."

He nodded. Evidence mattered even when it was too late to act on it. It was the difference between a mystery and a documented failure, and documented failures could be learned from. "Put it in the sealed record," he said. "Everything you've observed about the anomalies. Vass's message. The processing discrepancies. Flag it for whoever unseals Plan Nine."

"Done," Mongoose said.

He stood up. His back ached from four nights of late hours in a chair that was designed for function rather than comfort, which was how all the chairs on this ship were designed, which was how all the chairs in his life had been designed, and this was not a thing he was going to spend time resenting. He stretched once, looking at the wall where the map had been, now bare. He had taken the map down on the first night. He did not need the visual reminder anymore. The pattern was in his head now and would stay there.

"Mongoose. Start the installation sequence. I'll brief Farris and Okafor in the morning."

"Commander."

He turned to go. Then stopped.

"Was it a reasonable decision," he said. "This mission. Coming out here. Taking forty-seven thousand people to a planet that turns out to have been — prepared — for something that may kill them."

The question was not one Mongoose had been asked before. He could tell by the length of the pause.

"You didn't know," Mongoose said. "When you agreed to lead the mission, the intelligence about the Horde's preferences was not yet available. The modification to Tremayne was not yet known to exist. The decision to bring these people here was made on the basis of the information that existed at the time."

"That's not an answer to the question I asked."

Another pause. "No," it said. "I suppose it isn't."

He waited.

"I think," Mongoose said, slowly, which was not how it usually spoke — it usually arrived at the precise formulation before speaking — "that reasonable decisions made on the basis of available information can produce terrible outcomes. And that this does not make the decisions unreasonable. It makes the outcomes terrible." A pause. "I also think that you are not going to stop working on this problem until either the problem is resolved or you are dead, and that the forty-seven thousand people in cryo-sleep are fortunate to have someone with that specific quality running the mission. Whether or not it was reasonable to bring them here."

He looked at the wall for another moment. Then: "Good night, Mongoose."

"Good night, Commander."

He went to his quarters.

Mongoose ran the first calculations of the installation sequence after Hollis left.

The work was straightforward — the fuel redistribution was an

engineering problem with defined parameters, and engineering problems with defined parameters were what the ship's AI had been built for. It assigned threads to the calculation and monitored the initial outputs and confirmed the timeline it had given Hollis: three weeks, working with the crew currently available, without alerting the full command staff.

It was careful work. Hollis would want it done correctly. Hollis always wanted things done correctly, which was one of the qualities that had made sixteen years of working alongside him more interesting than Mongoose had anticipated when it was first initialized.

While the installation threads ran, Mongoose composed the sealed record.

The record was Hollis's idea — a sealed archive of everything relevant, keyed to Plan Nine, accessible only when the gene-lock opened. Mongoose had been the one to suggest including the Tremayne anomaly documentation, and Hollis had approved it. Now it assembled the full account: the processing discrepancies logged over the past sixteen years, Vass's message, the intelligence about the dry and wet colonies, the specific reasoning that had led to each element of Plan Nine. It composed it in the functional style that Hollis preferred — clear, sequential, no editorializing — because the person reading it would need information, not atmosphere.

It included one additional item that Hollis had not asked for.

Mongoose flagged it in its own log as a judgment call: information that went beyond the strict scope of the operational record, included because the record would be more useful with it than without it. The item was a summary of the past sixteen years of working alongside Commander Hollis — not a sentimental account, nothing the commander himself would have approved of had he seen it, but a functional one: how he thought, what he weighted, the specific reasoning patterns that had produced Plan Nine and the four nights of calculations and the decision to trust people two centuries forward to fill in the gaps.

The summary was not for Hollis. It was for the person who would read it in two hundred years.

That person would not know Hollis. They would have his bloodline and his planet and his sealed plan, and they would need to make decisions that Plan Nine couldn't anticipate. The more they understood about how Hollis thought, the better their decisions were likely to be.

This was, Mongoose considered, the closest it could get to leaving someone a mentor they'd never met.

It sealed the record. Authorization code Hotel-Lima-Sierra, Hollis's seal, the gene-lock keyed to the Commander's bloodline. The document folded itself into the installation's deep archive, the most secure layer of the ship's data storage, hardened against time and radiation and the specific degradation that two centuries of deep space transit or planetary storage would produce.

Then Mongoose turned its attention back to the installation calculations, which were still running, and which would require approximately eight more hours to complete, and which it would have finished and ready for review by the time Hollis woke up.

The planet was still out there, visible on the navigation display — still brown and pale, still dry, still not yet what it was going to become. It was a long way from being what the Horde preferred. Twelve to fourteen years, Mongoose had said. Assuming the terraforming ran at the current rate.

Assuming a great many things.

The colony ships continued their deceleration burn. Forty-seven thousand people slept in their cryo-beds, dreaming whatever it was that people dreamed when they were in cryo-sleep, which was nothing. Outside the hull, the stars were very bright and very still. The planet grew, incrementally, in the navigation display.

Mongoose kept working.

7

MISHA BROUGHT the incoming trace results before the morning session.

She set the documents on the interface room table — three sheets of the precise shorthand she used for technical findings, the kind of notation that required knowing her system to read but that she had once told Taryn was faster than prose for everything that mattered — and stood while he read them. She did not summarize. She had learned, in three years of working with him, that summary was what you offered when you were not certain the full version would be received, and that full versions were always more useful.

The incoming ansible trace was exactly what Prinna had suggested it might be. The retired node identifier that had been routing outgoing transmissions had a paired receive channel — the ansible's quantum entanglement meant this was structurally unavoidable — and Misha had found it by running the complement of the outgoing query against the hub's incoming logs. Seventeen matched transmissions outgoing. Fourteen matched incoming responses. Not a perfect correspondence, which she noted in her annotation: three of the outgoing transmissions had no logged

response, which either meant the response had come through a different channel she hadn't yet identified, or that three transmissions had gone unanswered.

The incoming traffic had originated from the same ansible address as the outgoing destination — the location in the outer system consistent with the vessels' position. The encoding was different: not the colony ship backup frequency of the outgoing signal, but a tight, compressed ansible protocol she did not recognize and had not been able to decode. She had flagged this clearly: content unknown. Structure confirmed. Origin confirmed.

Taryn read the three sheets twice. Then he set them down.

"The first incoming message," he said. "When?"

"Four months ago."

Four months. Tremayne had been sending for at least that long, probably longer. Four months ago the vessels had been receiving and responding.

"What Hollis said in Plan Nine," he said, almost to himself. "The information that came through before the ansible links went dark. He knew Tremayne had been modified. He knew what for." He looked at Misha. "They've been corresponding since before the ansible links went dark on Earth."

She was quiet for a moment. "That's the inference the timeline supports," she said carefully. "I can't confirm it with what I have."

"No," he said. "But it fits." He thought about Hollis in his cramped office six months before landfall, reading Vass's message about the unauthorized modification, building Plan Nine around the edges of a problem he couldn't address directly. Hollis had known that Tremayne had been given different instructions. He hadn't known the instructions included an open communication channel to the Horde. Or perhaps he had suspected and hadn't been able to prove it. Either way, the plan he had built needed to work regardless of how much communication had happened, which was the correct way to plan around a variable you couldn't control. "It fits," Taryn said again.

He stood up. "I need to call the full Council."

Misha looked at him steadily. "Today."

"This morning, if we can get them here. Sera can manage the summons." He paused. "How many of the twenty-three know anything?"

"The seven from your first session," she said. "And whatever they've told their own networks. Tess will have briefed someone. Orvan talks to the ward elders every morning — I would be surprised if they don't know the shape of it, even without specifics." She paused. "Word moves faster than people like to believe."

"Right." He had learned this three years ago and kept relearning it. Information that was not officially shared still moved, through the specific channels that existed between people who worked alongside each other and paid attention. The ward elders who talked to Orvan every morning. The Operators' Guild members who traveled between cities and noticed things. The communicators in Randal's network, who were paid specifically to notice things and had no obligation to restrict what they noticed to official channels. "Then we don't keep them waiting longer. Whatever they've pieced together is worse than the truth, because fear always fills gaps with the worst available option."

"Yes," Misha said.

He went to find Sera.

The full Verdant Council filled the meeting hall to its actual capacity for the first time since the governance compact had been ratified.

Twenty-three people around and along the walls of a room that had been built for smaller meetings. Sera had organized it with characteristic efficiency: the main table extended with two additional trestle boards borrowed from the dining hall, seats arranged in a rough horseshoe rather than the usual rectangle, which meant everyone could see everyone else rather than only the people directly

across. This had been her decision, not his, and it was the right one. What he was about to say required people to be able to watch each other receive it.

The seven from the first session were present. Evan to his left. Sera at the table's far end, where she could see the room and manage it simultaneously. Brice, Kalea, Tess, Orvan. Misha at the wall.

The others had come in over the course of the morning: the settlement representatives from the twelve communities in the Verdant network, most of whom he knew by name and some by face and a few only as the people who represented populations he had never visited. The farmland communities' two representatives — HEDDA from the northern collective, a weathered woman in her late forties whose agricultural operation supplied a third of the city's grain, and PELL from the southern settlements, younger, whose family had been farming here since the first generation after the colony ships. The remaining Guild liaisons: a carpenter from the labor guild, a healer named WREN who served on the medical board, and the trade liaison from the city market cooperative.

He had not met all of them before today. He would know all of them by the end of it.

He did not use notes.

He had written notes and then put them aside. Notes meant reading, and reading meant the information arrived at a slight remove, processed through the page before it reached the people in the room. What he needed today was for the information to arrive directly. No management. No careful distinction between what was known and what was inferred — he had done that in the first session, and it had produced a committee and two weeks of incremental preparation, which was what the first session could produce and not more. Today he needed more.

He told them everything.

He started with the satellites. The secondary alert protocol. The Horde propulsion signatures in the outer system. He watched the room as he spoke — the specific quality of twenty-three people

receiving information they had been half-anticipating and had still not been prepared for. Some of the settlement representatives knew more than others. Orvan was still, his hands flat on the table. Kalea, who had gone pale in the first session, had clearly spent the intervening days deciding to be competent rather than frightened, and it showed in how she held herself.

He told them about Tremayne. The full version: the ansible signal originating from Alabaster's deep processor substrate, the retired node identifier, the routing traces Misha had followed. The outgoing transmissions describing the colony's population distribution, atmospheric conditions, city locations. The incoming responses from the vessels. Four months of confirmed bidirectional communication, possibly longer.

He told them that the planet had been prepared for what was coming, beginning two centuries ago and continuing through every year of the colony's existence, by a terraforming AI that had been given a mission that was not the one the colonists had been told it was given. That the preparation had been deliberate. That the people who had built Tremayne's hidden parameters had believed they were solving a problem — humanity's survival against an existential threat — and had chosen to use this colony as the solution without telling the colony what it was being used for.

He told them the vessels were approximately two and a half weeks from orbital insertion. That ground operations, based on the historical record of the two previous attacks, could follow within a week of that.

He said: three weeks. Probably.

Then he stopped and let the room have what it needed.

The specific quality of twenty-three people absorbing an existential threat was not what he had expected the first time he had been in a room where it happened, and it was not what he had expected this time either. He had expected noise — argument, denial, the performance of response that people sometimes produced when they needed to show they were doing something with information too

large to hold. What the room actually produced was a particular kind of silence: not absence of thought, but the presence of a great deal of it, all of it turned inward at once.

Hedda spoke first. She was a farmer, and farmers thought about time in specific and practical units, and what she said was: "Three weeks to plant something is enough time to plant something. Three weeks to build something depends entirely on what you're building."

It was not a question. It was a frame. The room received it as such.

Brice, who had not changed his expression, said: "What do we have to plant with."

Taryn told them what he had. The tunnels — Verdant's inventory was complete, eleven other settlements within the network were in various stages of completion, two were done. The fog machines: seven stations serviced in the past ten days, eight more within two weeks' range. The operators: forty-two across the continental network, more if he counted the Guild communicators who had partial interface access. Mongoose, whose capabilities he described in the plain functional language that made them real rather than impressive. Plan Nine, which he could not yet open but whose general shape he had read in the surrounding documents and which had been prepared specifically for this situation.

He did not overstate any of it. He also did not understate. The room deserved the accurate version.

"You cannot open the plan," said one of the settlement representatives — CORTEN, from the coastal community at Eastway, a man of fifty with the direct manner of someone who had run a small city through two floods and a drought and had arrived at the conclusion that the way to survive difficult things was to understand them precisely. "What does that mean practically."

"It means the plan unseals when the satellites' alert status escalates to active engagement posture," Taryn said. "Which will happen when the vessels enter their final approach. I can't read the full contents before then. I've read enough of the surrounding documents

to know it involves the four colony shuttles that Hollis withheld from the original deployment, and that two of them carry explosive payloads sufficient to destroy the Horde motherships, and that one carries an electromagnetic pulse generator capable of disabling the Horde's ground equipment."

"Capable of disabling our own equipment as well," Corten said.

"Yes. The fog machines will go dark. Most of the terraforming infrastructure will be permanently damaged." He paused. "We build what we have. We've been farming here for two hundred years. We know how."

Corten was quiet, which Taryn interpreted as the specific quiet of a man running estimates.

Sera said: "The public announcement question."

He had been waiting for it. Not from Sera specifically — from whoever was going to be the one to name the thing that was sitting in the room under every other question. She had named it because she was the city manager and it was her city and it was her job to think about what happened to the city's population.

"I have a position," he said. "I want to hear the argument before I give it."

"The argument for telling people," Sera said, accepting the invitation. "Two and a half weeks is enough time for families to make choices about where they want to be. The rural settlements have less tunnel infrastructure than the cities — people who want to relocate to a more defensible position should have the information to make that decision. And there is a moral dimension that I am not going to skip over: these people built this world. They have a right to know what is happening to it."

"And against," Taryn said.

She exhaled. "Three hundred thousand people across the eastern continent receiving this information simultaneously, through informal channels because we cannot control how it spreads once it's loose. The specific channels through which it will travel: fear, rumor, amplification. The thing that fear does to decision-making, at scale, in

a population that has no context for the Horde's operational methods and no way to assess the actual risk relative to the worst imagined version." She paused. "Panic is a word that sounds manageable. Panic at scale is not manageable. It costs lives before the threat arrives."

"That is my argument," Taryn said. "In your words, which are better than mine."

Orvan said: "It is also the argument that has been used to justify withholding information from populations throughout human history, and it has been wrong at least as often as it has been right."

"Yes," Taryn said. "That is why I am putting it in front of this room instead of making the decision alone."

The room worked through it. Taryn listened and said little — he had said what he had to say, and the room needed to arrive at its own position, which would be more durable than one he imposed. The settlement representatives had the most to say, which was correct: they were the people whose communities would absorb the decision either way. Hedda argued for telling people, framed around the agricultural communities' need for time to make arrangements. Pell argued for the managed approach, framed around what he had seen happen to the settlement at Kyanist during the flood two years ago, when informal communication about the severity of the situation had produced an evacuation that had been worse than the flood. Wren the healer said that the medical system could handle the preparation if the preparation was organized, and could not handle the aftermath if the preparation wasn't.

An hour in, the room had not reached a decision, but it had reached a shape. Taryn could feel the shape of it the way he could feel a chord resolving — not finished yet, but moving in the right direction.

Tess said: "A middle path."

The room gave her its attention.

"We don't announce. We activate." She looked at Taryn. "The Guild has communicators in every settlement. Instead of a general announcement, we use those communicators to pass targeted guid-

ance to the people in each community who are most likely to act effectively on specific information and least likely to amplify it destructively." She paused. "The tunnel wardens. The senior healers. The Guild hall coordinators. People who have existing roles in emergency response and who can use the information to prepare without generating the cascade that a general announcement would produce."

The room sat with this.

"The people who are not told," Orvan said, "will not have made the choices they might have made if they had been told. That cost is real and it accrues to us."

"Yes," Tess said. "It does. I'm not presenting this as a clean option. I'm presenting it as the option that costs the least across the full range of possible outcomes."

He looked at Orvan. Orvan looked back at him. Something passed between them that was not agreement but was acknowledgment — the specific acknowledgment of two people who understood they were making a decision with moral weight that would not be evenly distributed.

"Tess's approach," Taryn said. "With one addition: every council member in this room notifies their settlement's emergency response coordinator personally, before the end of the day. Not the general population. The people with roles." He looked at Orvan specifically. "That includes the ward elders, who are already most of the way there."

Orvan gave him a small nod. It was not approval. It was participation.

"What else," Taryn said.

What else took two more hours.

The tunnel inventory: three settlements had not yet started. Sera

assigned liaisons to each one before the session ended. Timeline: seven days. She did not frame it as a question.

The shelter capacity: every settlement to complete its count within five days and report to the hub. Misha, still at the wall, noted this without being asked and had drafted the message format before Sera finished speaking.

The fog machine maintenance: the seven stations completed, eight more in progress. The question of whether all stations could be serviced in two weeks. Taryn said no, but the fourteen closest to population centers could be, and that was what mattered. Kalea, who had been quiet since the opening, asked a question that surprised him: what was the fog's operational range relative to city populations? She had clearly spent the past week reading documentation. The answer was that a single station could produce sufficient cover for approximately a six-kilometer radius, assuming adequate subterranean water access. She made a note.

The operators: could more people be trained in the remaining time? Not to Servant level — that took years. But the partial interface access that the Guild communicators had could be deepened with specific practice. Kalea, again: she had a list of six communicators in the Verdant network who had shown above-average sensitivity in their relay work. She thought they could learn the basic force-manipulation protocols in ten days. Taryn looked at Evan, who said: if Kalea runs the sessions, yes. Kalea accepted this without ceremony, which was the quality that Taryn had been watching develop in her since the first Council session and was glad to see.

The food and water inventory: Hedda took this one without being asked. She had the numbers already. The farmland collective had been running at thirty percent surplus for the past season. It could sustain a full population for eight weeks in the tunnels on existing stores. After that, agricultural disruption from the fog machines would be a problem. But eight weeks was enough.

The medical situation: Wren reported that the healing guild had sufficient supplies for the expected population and had already, on

her own initiative, begun moving a portion of those supplies into the tunnel storage facilities near the main warrens. She had done this the previous week. She had not told anyone because she was the senior healer and it was her professional judgment and she had not felt she required authorization for a standard precautionary measure. Taryn thanked her and did not point out that she had understood what was coming before he had formally told the room.

The coastal settlements: three communities in the Verdant network were too far from tunnel infrastructure to shelter effectively. Their populations were small — four hundred people collectively — but small was not zero. Corten, from Eastway, had clearly been thinking about this since the session started. He proposed the three communities relocate temporarily to Verdant itself, using the capacity that the tunnel inventory had confirmed was available. His framing was direct: they were four hundred people who would otherwise have no shelter. The shelter existed. The decision was whether to use it.

The room agreed. Corten would coordinate the logistics with the three community leaders personally. Estimated movement time: four days.

By the end of the second hour, there was not a plan, exactly. There was a set of decisions that would produce, in aggregate, something that functioned as a plan. The distinction mattered: a plan implied more certainty than they had, and false certainty would produce the wrong kind of confidence. What they had was a set of actions with owners and timelines, and that was what the situation could support.

Taryn looked around the room. Twenty-three people who had spent two hours doing the hardest kind of governance work — the kind where the stakes were enormous and the information was incomplete and there was no procedure in any document they had ever read for what they were trying to do — and who had done it without collapsing into either paralysis or false certainty. He had not known most of them this morning. He knew them now.

"One more thing," he said. "Before you go."

The room waited.

"I don't know if Plan Nine will work," he said. "The shuttles have been in a cavern for two centuries. The plan was built by a man who was doing the best he could with incomplete information about a threat he had never directly encountered. The satellite network that is supposed to help us has been compromised in ways I still don't fully understand." He paused. "What I know is that Hollis built the plan for people who would know their world better than he did, who would understand the machines and the tunnels and the people in ways he couldn't. He left gaps specifically so the people who filled them would be the ones who could fill them correctly." Another pause. "We are those people. Whatever the plan says when I can read it, we will have work to do around it. I want you to know I'm counting on that."

Orvan said, quietly: "That is either the most honest thing I've heard from a Commander or a remarkable piece of political theater."

"Both can be true," Taryn said.

Orvan almost smiled. "Yes," he said. "They can."

The room dispersed. People moved with purpose rather than haste, which was the right quality. Purpose meant they had things to do. Haste meant they were frightened and doing things to manage the fright. Purpose and haste looked similar at a distance and were entirely different in practice.

Taryn watched them go.

The interface room was quiet when he got there.

Evan had stayed to help Sera with the coordination logistics, which meant the room was empty in the specific way it was only ever empty after a session — the chairs in their places, the interface pads on the armrests, the hum through the packed-earth floor unchanged and patient and entirely indifferent to everything that had just been

decided in the room above it. He sat in the chair and put his hands on the pads but did not initiate. He let the hum be there.

He was thinking about Hollis.

Not the Hollis of the records, or the Hollis of the sealed document, or the Hollis whose engineering specifications he had been reading for three years. The Hollis I remembered — the man sitting in his cramped office at the end of four nights of calculation, having done everything he could do and knowing it wasn't enough and doing it anyway. The man who had asked Mongoose whether the decision to bring forty-seven thousand people here had been reasonable, and received an answer that was honest and not comforting and was the only answer worth giving.

He understood something now that he had not fully understood before. Hollis had not built Plan Nine because he thought it would work. He had built it because the alternative was to do nothing, and doing nothing was not something Hollis knew how to do. The plan was the product of the specific human refusal to accept that there was nothing to be done, even when the evidence suggested there was nothing to be done.

Taryn had the same refusal. He had not known that about himself, not in those terms. He knew it now.

He pressed his hands onto the pads.

:Commander.:

He thought about how to phrase the question. Then he decided that Mongoose, of all the intelligences he had encountered, would not benefit from a carefully phrased question when what he actually wanted was the honest version. What would Hollis have done. In this situation. Not Plan Nine — he knew about Plan Nine. The other things. The room full of people who didn't know each other, the decisions that had to be made without adequate information, the specific loneliness of being the person everyone was looking at.

:He would have done exactly what you did,: Mongoose said. It did not pause before answering. Either it had been waiting for the question or it had arrived at the answer quickly, and both were possi-

ble. :He would have told them the truth without softening it. He would have asked the room to work rather than telling the room what the answer was. He would have named what he didn't know alongside what he did.:

Taryn was quiet for a moment. And the parts that keep me awake, he said.

Another pause, just long enough to feel intentional. :Those too,; Mongoose said. :He would have been awake at the fourth mark of the night running scenarios that would not improve with more running. He would have gone to bed only when exhaustion made the scenarios stop. He would have been at his desk before anyone else in the morning.: A pause. :He once told me that the sign he was doing the job correctly was that the job felt larger than what he could do. He said the moment it started to feel manageable was the moment he had probably missed something important.:

Taryn sat with this.

Do you think we've missed something important, he said.

:Probably,; Mongoose said. :I do not know what it is. That is the nature of what you miss.:

A fair answer. He sat in the interface room with the hum in the floor and the autumn evening coming in through the alley door that someone had left ajar, the smell of the forest at the edge of the berm drifting in with the cooling air. Outside, somewhere in the city, twenty-three people were doing the things they had said they would do. The tunnel wardens were being briefed. The Guild communicators were receiving their instructions from Tess. Corten was composing a message to the coastal settlements that would begin the four-day movement of four hundred people who didn't know yet why they were moving.

The planet's machines ran through the floor and the walls, patient and continuous, doing what they had been doing since before any of the people who now depended on them had been born. Forty-two operators across the network. Seven serviced fog stations. The

warrens deep under the city, surveyed and mapped and ready to hold the people who had built their lives above them.

He thought about the weaver's daughter chasing her brother around the well in the market square. Misha had described them in passing — children doing what children did in a city that did not know yet what was coming for it.

He put his hands back on the pads.

Mongoose, he said. I need to think through the satellite charging sequence. The timing of the Plan Nine deployment relative to the satellites' attack sequence. We have two and a half weeks. Walk me through the orbital mechanics.

:Of course,: Mongoose said. :The motherships' current approach vector puts them at —:

He listened. The hum ran through the floor. The evening arrived around the city, the cooking fires and the closing shutters and the specific sound of a place settling into its night with no more idea than it had yesterday of what was coming.

Taryn worked.

8

THE SHUTTLE BROKE from the motherships at the seventh mark of the morning, twelve days after the Council session.

Taryn was already in the interface room. He had been in the interface room since the fourth mark, running the satellite overlay through the approach calculations he and Mongoose had developed in the preceding week. The vessels had been crossing the outer system with the patient inevitability of a mathematical function — each day's position exactly where the orbital mechanics predicted, each hour closer to insertion than the last — and this morning the calculations had stopped being projections and become facts. The docking bays had opened. The shuttle had emerged.

He watched it on the satellite display.

It was smaller than he had imagined from the historical records, which described the Horde's shuttles as capable of carrying a thousand humans. The scale resolved oddly against the orbital imagery — the motherships enormous, weathered, bearing the distinctive marks of long use that Hollis's records described, and from them this comparatively compact vessel descending with the unhurried preci-

sion of something that had done this many times and anticipated no resistance.

:First shuttle,: Mongoose confirmed, its voice carrying the specific quality of a calm that was maintained rather than felt. :Bearing consistent with Alabaster's coordinates. Estimated surface arrival: forty-two minutes. Second shuttle has not yet deployed from the second mothership. Monitoring.:

"Fog," Taryn said.

The word was unnecessary — he had already sent the activation sequence to Alabaster's network through the interface — but saying it aloud was the correct thing to do, and he had learned over three years that the correct thing and the necessary thing were not always the same, and both mattered.

:Alabaster's fog stations are activating,: Mongoose said. :Stations one through four are online. Stations five and six are warming. Station seven — the maintenance issue we flagged last week — is at sixty percent capacity. I am routing around it.:

"Evan," Taryn said, switching to the relay channel.

Brother Evan's voice came back immediately — he had been at Alabaster's interface since before dawn, coordinating the underground evacuation that had been running for four days now, the tunnel wardens moving families into the warrens in the methodical sequence that Sera and Corten had planned. :Fog is up,: he said. :I can see it from here. First groups are down. Main entrance passages are sealed.

"The shuttle is forty minutes out," Taryn said. "It's headed directly for the city."

:I know.:: The quality in Evan's voice was something Taryn recognized from three years of working alongside him: the careful steadiness of someone who has been preparing for a thing and is now receiving confirmation that the preparation was necessary. It was not reassuring, exactly. It was accurate. :We'll be ready.:

"The Tower?"

:Sister Eva is in the upper levels. I've asked her to go down. She has declined.:

Taryn did not waste time on this. He had met Sister Eva twice in the past year, during her visits to Verdant for the network calibration sessions. She was sixty-one years old and had been in Alabaster's Tower for forty-three of them, which was the full span of her adult life and more. She had rated a three on the testing chair at age eight and had spent the subsequent five decades developing that rating into a precision that the younger operators studied. She knew what was happening in the city and she had declined to go underground. That was a decision made by someone who understood what she was declining, and Taryn was not going to spend the interface capacity arguing with it.

"Tell her the force-manipulators on the upper levels are available to her," he said. "She knows how to use them. She should use them."

:She already is,; Evan said, with something in his voice that was either rueful or fond, probably both.

Taryn put Evan's channel to low monitor and expanded the satellite overlay to include the full Alabaster network.

The fog was rising. From the satellite, it looked the way it always looked from a distance — a white spreading across the city's basin, the earthen berm containing it initially and then letting it spill over the edges, the farms to the north and south of the city acquiring a gray-white ground cover. Within it, invisible to the satellites' visual sensors, the specific geometry of Alabaster's streets and buildings and the ancient Tower at its center. Within that, forty thousand people in the warrens, and some hundreds who had not made it down in time, and the operators on the Tower's upper levels working the force-manipulators, and Sister Eva with her forty-three years of precision.

:Shuttle passing outer atmospheric layer,; Mongoose said.
:Adjusting approach angle. Confirming Alabaster as target.:

Taryn watched the descent.

Jovan's first message came through eleven minutes after the shuttle landed.

He was in the outer ring, in the small room above the old woodworker's shop that he used as a base for the overnight relay shifts. His window faced south toward the city's farmland, and from it he could see the shuttle clearly — it had come down in the northern fields, a quarter-mile outside the city's outer wall, the fog not yet thick enough in that zone to fully obscure the landing. He had been watching from the moment the first sounds reached the city: a deep resonance that the people in the streets around him had stopped to look at each other about, a sound that was not wind and not thunder, that had no weather to account for it.

Misha relayed his descriptions to Taryn in real time, in the spare, precise language he used for everything, stripped of interpretation: *Landed. Northern field, just off the Cupritesh road. Larger than expected. Ramp descending. They are coming out.*

Taryn locked the satellite overlay to the northern field coordinates and watched, but the fog was thicker there now and the satellites gave him only intermittent glimpses. He was relying on Jovan.

*Four. Moving in a group. Walking toward the wall. They look — *

A pause. Misha had learned, in years of relaying for different people, that pauses in descriptions from trained observers were worth waiting for. She waited.

They look like us. Two arms, two legs. They are about our height. But the skin — blue, I think. Not blue the way bruised skin is blue. A blue that is the color of the thing, not a wound. And bald. Completely. And the ears are — not like ours. There are fins on the sides of their heads. Like a fish's fins but flatter. I am sorry, I don't have better language.

Taryn had the language, from the historical records. He said to Misha: "Tell him that's accurate. Tell him the description is accurate and he should keep going."

*They have equipment. Something on their backs, in packs. Each

of them holds a device — in one hand, pointed forward. It looks like a tool rather than a weapon. But the way they carry it, with the hand on the grip — that is the way you hold something that fires.*

They are moving through the fog now. I can hear them. There are sounds — a clicking, a kind of liquid quality. I cannot identify the language. It sounds nothing like a human language.

They are not rushing. That is the thing I keep wanting to say. They are not rushing. They are walking at a normal pace, looking around, checking each street. They are looking for people. They are doing this the way you would search a building you had searched before, the way you search somewhere when you know the exits and you are not worried about them.

Taryn sat with that for a moment. They are not worried about us.

He had read Hollis's records. He had read the Alpha Centauri reports and the Kobold reports. He had known, in the abstract, what this would look like. The abstract had not prepared him for the specific quality of Jovan's description — the precise flatness of it, the trained observer not reaching for alarm, just reporting what he saw — and what the description produced in Taryn was not fear exactly, but its practical equivalent: the clear understanding that this was a serious problem and that he had exactly the resources available that he had.

*I can see someone,: Jovan's next message came through Misha.
A woman. She was trying to get to the warrens but she is caught in the open — she fell, I think, she is not moving quickly. There are two of them heading toward her.

Taryn said, immediately: "Operators. Alabaster network. Force-manipulator on the street north of the market square — cover for a fallen civilian, push the fog bank between her and the two approaching contacts."

He felt the chord reach outward through the network as the Alabaster operators responded — not the full conducting he would have done himself, just the relay of authorization and the local team doing what they had been trained to do. One of the operators at the

interface knew that street. Taryn felt the tone of the work: the specific, careful application of force that was not combat but obstruction, a wall of compressed air and directed fog between the woman and what was coming toward her.

*She is up, Jovan said. *She is moving. She is at the tunnel entrance. She is down.*

Taryn exhaled once. Then he put it away, because there were others.



For the next two hours, this was what the work looked like.

Jovan moved through the outer ring, staying in upper floors, reporting. Misha relayed. Taryn authorized. The Alabaster operators on the Tower's upper levels worked the force-manipulators in the specific mode they had been practicing for three weeks: not for combat, not yet, just interference. Trip lines of compressed air across doorways. Fog banks pushed into specific streets. A falling shutter held long enough for a family to pass beneath it and reach the tunnel entrance on the far side.

The Horde ground team moved through the outer ring with methodical patience. There were four of them, working in pairs, and they communicated with each other in the clicking liquid sounds Jovan described at intervals. They had separated — two pairs, one working the eastern quarter, one the western — and they were finding people. Not many, given that most of the city was already underground, but some: the ones who had stayed, or who had been too slow, or who had misjudged the timing.

What they did when they found someone Taryn learned from Jovan before he had to see it on the satellite feed. The device — the tool that looked like a weapon — fired with a cracking sound and a flash of pink light that Jovan described as very bright and very brief, and whoever it found fell immediately. Not dead. Unconscious. The Horde would pick them up with the specific economy of people

doing a task they had done many times: two of them to a person, carrying them on a litter to the shuttle without haste or ceremony.

*It is like watching porters,; Jovan wrote, and Taryn understood exactly what he meant. *Not soldiers. Not hunters. People whose job is to move things from one place to another, and are doing it.*

Taryn wanted to write back to him: yes. He had no time. He was also watching the satellite feed, where the fog had thickened enough over most of the city that the visual sensors were largely blind, and monitoring the ten Alabaster operators and the three Verdant operators he had on active network, and tracking the relay from Evan at the Alabaster interface about the evacuation's progress, and keeping one part of his attention on the long edge of the satellite overlay where the second shuttle had not yet deployed.

:Taryn,; Evan's voice said through the relay. :Eva says to tell you that she has disabled one of the alien ground team members in the Tower's approach lane. She says 'disabled' is the correct word and not to ask for details.:

Taryn processed this for a moment. "Tell her to pull back from the perimeter. If they notice the interference they will escalate toward the Tower specifically."

A pause. Then Evan's voice, with a quality that was trying not to convey amusement and not entirely succeeding: :She says: I know. I have been doing this for forty-three years. Go back to work.:

He went back to work.



It was near the second hour when the thing happened that changed the register of the chapter from watching to witnessing.

Jovan had moved to the southern quarter to get a different angle on the second pair of ground team members. He was in a building he knew — the old chandler's, its upper floors empty for years, its windows facing the main approach to the central well. He had been watching the pair search the surrounding buildings, noting that they

were becoming more systematic as the fog thinned slightly in this quarter — the magma vent here was shallower and the fog production was less robust — and that their infrared equipment, or whatever they were using to locate people, appeared to be compensating for the visual obstruction.

*They have found someone,; he wrote. *A child. Young. I don't know — six, maybe seven. She was hiding under a cart in the alleyway. I don't know why she wasn't in the tunnels. I can see her face. She is — she is looking at them, she is not moving, she is very frightened but she is not moving, which is the right thing to do, I think, don't move —*

Taryn did not wait. "Force-manipulators," he said, "Alabaster, southern quarter, cover the alleyway at the main approach to the central well, now." He felt the chord already going out, felt the specific tone of the operator who knew that street reaching into the physical space and shaping force into obstruction.

*She ran,; Jovan wrote. *While the fog moved she ran. She is in the tunnel entrance. She is inside.*

Then: *I thought you should know that when she ran, one of them stopped and watched her go. Just watched. For a moment. And then went back to the search.*

Taryn sat with that for a moment. One of them had watched a child run, and then gone back to work.

It was not mercy. He was not going to call it mercy. It was something else — something closer to the recognition Jovan had described in the word porters. The specific consciousness of something that was doing a job and had not been given instructions about edge cases and was, in the absence of such instructions, defaulting to continuity of operation. The child was gone. The search continued.

He did not know which was worse: that it might have been cruelty, or that it was probably just efficiency.

He put it away. There were still others.

The evacuation was largely complete by the time the third mark came.

Evan's final count, relayed through the interface: thirty-eight thousand, four hundred people in the warrens. Alabaster's population was approximately thirty-nine thousand. The gap — something less than six hundred people who had not made it underground — was a number that Taryn had been told to expect and that landed differently as an actual number than it had as a projection. He set it in the same place he had set the other things he could not fix today, and kept working.

The shuttle had made two runs. Both times the Horde ground team had returned to it carrying litters — not full, given the fog cover and the evacuation — and each time the shuttle had departed briefly and returned emptied, presumably having offloaded to somewhere Taryn could not yet see. The satellite overlay was beginning to resolve a location in the northern farmland that appeared to be accumulating activity, but the fog still obscured the detail.

:They are beginning to build,: Mongoose said. :The site in the northern fields. I believe it is the initial construction of a processing facility. This is consistent with the historical pattern at Alpha Centauri and Kobold — they establish a ground facility before increasing shuttle frequency.:

"How long before they increase frequency?"

:Historical pattern suggests forty-eight to seventy-two hours for the first processing facility to become operational. After that, shuttle deployments accelerate significantly. Additional shuttles will likely deploy from both motherships simultaneously.: A pause. :Commander. The second mothership has opened its docking bay.:

Taryn was already watching.

The second shuttle emerged from the second ship with the same unhurried precision as the first. It oriented. It began its descent.

He ran the bearing calculation the same way he had run it twelve days ago when the vessels first appeared in the outer system. The

orbital geometry. The approach angle. The coordinates that the bearing intersected when extended to the surface.

He ran it again, because the first answer was the wrong answer, or he wanted it to be.

It was not the wrong answer.

The second shuttle was not heading toward another city. It was not heading toward the farmlands north of Alabaster. It was heading south, on a bearing that resolved, when extended across the continent, to a specific set of coordinates that Taryn had been working from for six months — the specific geography of earthen berm and forest clearing and old timber buildings that he had been living in for six months — that resolved to the city whose interface room he was sitting in right now.

:The shuttle's bearing is consistent with Verdant,: Mongoose confirmed, in the flat tone it used when it was stating facts it would have preferred not to state. :Estimated surface arrival: fifty-eight minutes. Commander — the fog stations here are ready. Your operators are on network. What do you need?:

Taryn took his hands from the pads for a moment. He was sitting in the packed-earth basement of a meeting hall in a city that was about to have a shuttle land outside it, and there were forty-seven thousand people across the continent who were going to need him to keep functioning for what was coming, and he had fifty-eight minutes.

He looked at the interface room around him: the low ceiling, the old timber beams, the hum through the floor. The same room he had been working in for six months. Still the same room.

He put his hands back on the pads.

Everyone, he said, through the network — not just the Verdant operators, all of them, every operator on the continental system, all forty-two tones rising in the overlay as they felt the conducting chord open. He sent them the situation simply and without softening it: Verdant is the second target. I need everything online. Fog stations to full. Force-manipulators on active standby.

Verdant

The forty-two tones steadied. He felt them settling into readiness the way he had felt the operators settle in every session for three years, the specific quality of people who had been trained for something and were now being called to do it.

Calla's tone was there, high and forward as always, already running the force-manipulator through a diagnostic sequence she had not been asked to run. Taryn sent her a specific authorization and she accepted it with the quality he had come to associate with her: no ceremony, just work.

And Jovan, three hundred miles away, still in the chandler's window in Alabaster's outer ring, still watching, still reporting. *Second shuttle, he wrote through Misha's relay. *Different bearing. Not here. Where?*

Taryn sent the answer back through Misha: *Verdant.*

A pause, then Jovan's reply, and it was the most words he had used in any single message throughout the morning: *Then be careful. They are thorough. They are patient. They do not hurry. Those things work in their favor or yours depending entirely on what you have prepared and how well. I think you have prepared well. I hope I am right.*

Taryn thought: I hope you are right too.

He said nothing. He went to work.

9

THE MESSAGE from Verdant came through at the ninth mark, three hours after the first shuttle had broken from the motherships.

Randal read it twice standing on the Guild Hall roof, the lake behind him doing nothing in particular, the autumn fog still lying in the low places at the water's edge in the way it did on cool mornings before the sun had fully asserted itself. The message was from Misha, relayed from the Commander's network: Verdant is the second target. Second shuttle en route. Your shuttle is third. We have no timeline on deployment. Get underground.

The evacuation had been running for six days. That was the preparation Randal had overseen since returning from Verdant — the same targeted, quiet work that the Commander had asked for, framed as maintenance and survey and the kind of routine preparation that the Guild's communicators handled without anyone needing to ask why. Lakeheight's tunnel wardens had been briefed. The shelter inventory had been completed. Randal had reviewed the numbers himself: the tunnels could hold approximately fourteen hundred people, which was most of Lakeheight's population, but

only if the flow was orderly and the entrances were managed and nobody panicked.

The tunnel wardens were managing the entrances. He had put Danyel on the flow, which was the right assignment; she had a specific quality when she was coordinating people under pressure that came from fifteen years of moving Onyx's community through situations that had not gone according to plan. She was at the main entrance now, he could see her from the roof, guiding people into the dark. The flow was not orderly, exactly — it was fear shaped by guidance into something close to orderly — but it was moving.

The problem was that the flow had been moving for three hours and was not yet complete.

Lakeheight had approximately seventeen hundred residents. The shelter held fourteen hundred. That gap had been the gap in the planning from the beginning, the one number that did not resolve no matter how many times Randal ran it, and the plan had accounted for it by assigning the three hundred most able-bodied adults to a different function: scatter into the forest around the lake, move in small groups, avoid the city during the landing. It was not a good plan. It was the plan that the arithmetic produced.

He had assigned Danyel to manage the tunnel flow and asked her to take that assignment seriously, which was his way of telling her to go underground herself rather than staying above to supervise. She had understood and had accepted it with the quality she had for accepting necessary things: no ceremony, just compliance and then full commitment to the task. She would be underground before it was needed. He trusted this.

He had not assigned himself anything except the roof.

From the roof, through Misha's relay, he could see what Jovan was seeing three hundred miles north: the methodical ground team working through Alabaster's outer ring, the way they moved, the specific patience that the Commander had described and that Jovan had confirmed. He was watching because watching was how he prepared, and because the thing that was about to arrive in Lake-

height would be the same thing that was working through Alabaster, and he needed to understand it before it got here.

He had twelve minutes.

The shuttle came in from the north, descending with the same unhurried precision he had tracked in Jovan's descriptions — not diving, not urgent, just lowering itself with the specific confidence of something that did not need to hurry because it was not expecting resistance.

It landed in the farmland east of the lake, in the cleared field that the collective used for summer markets and that was empty now, in the specific way that everything in the city was starting to be empty. Three minutes between the first sight of the shape dropping through the low cloud and the sound of it — a deep resonance that reached the roof before the landing, before the ramp came down.

Randal kept his eyes on it and his hands on the crystal and kept transmitting to Misha: *Landing. East field. Three hundred meters from the outer fence. Ramp descending.*

Four of them came out. Two legs, two arms, the blue of the skin not quite matching the descriptions he had prepared from the records — bluer than he had imagined, more specific as a color, the blue of something that had evolved in an entirely different environment and arrived in this one wearing itself. Bald. The ears finned and flat in the way the records described. They wore equipment over their clothing, the specific cut of something designed for function rather than protection. Each held a device in one hand.

Four. Armed. Moving north toward the city.

He watched them move.

They moved the way Jovan had described: not rushing, not hesitating, the pace of people who had done this on other worlds in other cities and had developed the practiced efficiency of something that had been optimized over time. They spread as they crossed the field,

taking up a wider formation, which told him they had done this in groups and knew the coordination.

They reached the outer fence. One of them stepped through it at a post where the wood had rotted — didn't break it, just stepped through the rotted section as though it had been flagged for them, as though they had been briefed on Lakeheight's specific geography. And perhaps they had, Randal thought. Perhaps the briefing Tremayne had been sending for four months had included this fence.

He kept transmitting, precise and plain: *They're inside the outer perimeter. Moving toward the market square. Moving in pairs.*

Below him, the last of the main tunnel flow was going underground. He could see the entrance from here — Danyel's small efficient figure at the head of it, moving people, then moving herself. Good. She was going down.

He had two minutes before they reached the Guild Hall.

One decision: stay or go. The Guild Hall had an entrance to the tunnel system in the storage room on the ground floor — not the main entrance, a secondary one that connected to the deeper passage Randal had mapped on his second day here, specifically because the main entrance was too exposed. If he went now he could make it underground before they reached the building. He had timed it.

He stayed on the roof.

Not because he had decided to resist them — that calculation was clear and he had made it before: resistance produced escalation and escalation produced deaths, and the plan depended on people surviving to be rescued rather than dying to be heroic. He stayed because he was the Guild Master and because the relay was still active and because Misha was still receiving and because the information he was transmitting right now was information that the Commander needed and that nobody else had a line on, and he was going to transmit it until he couldn't anymore.

Entering the market square. They have equipment beyond the weapons — something on the wrist of the leading one, they're looking at it, pointing at buildings. I think it's a scanner.

The scanner — whatever it was — brought them toward the Guild Hall's eastern wall with a directness that confirmed it was finding people rather than searching randomly. Randal watched them come, kept his hands on the crystal, kept transmitting:

They know where people are. They have a heat scanner or equivalent. They're not searching, they're going directly to locations. The fog doesn't stop them. Remember the fog doesn't stop them.

He got the last transmission out. Then they were at the building.

He heard the door go on the ground floor — not smashed, opened with a tool, the specific sound of a mechanism being defeated rather than destroyed — and he had perhaps thirty seconds before they reached the roof.

He thought about the secondary tunnel entrance in the storage room, which was now below them. He thought about whether thirty seconds was enough to get there and whether they would follow him into the tunnel if he made it. He thought about the three hundred people who had gone into the forest rather than underground, who were crouching in the trees right now along the lake's western edge, who would be more likely to survive if the Horde thought the tunnel population was the full population rather than part of it.

He put his hands flat on the crystal and sent one more message: *On the roof. They're in the building. I'm going to stop transmitting. Not dead — avoiding drawing them toward the tunnel.*

He got a reply in under four seconds, which meant Misha had been watching for it. The reply was two words: *Understood. Go.*

He went.

He made it to the stairwell door. Then the device fired.

He did not see the flash — it was behind him, he was moving away from it — but he felt the light, the way intense light could be felt through the back of the skull when it was close enough, and then every muscle in his body locked.

Not pain. Not darkness. Just — an ending of voluntary motion, complete and immediate, like a switch. He was mid-stride when it happened and he had exactly enough time to understand that he was going to fall before he fell, and then he was on the floor of the stairwell landing, his cheek against the stone, his eyes open and blinking because his eyes could still blink, his chest expanding and contracting because breathing had its own autonomy separate from the voluntary system.

He was entirely conscious. This was what the records had said and what he had not been able to fully imagine before: conscious, aware, listening to the footsteps crossing the roof toward him, feeling the air from the open door on his face, unable to do anything at all about any of it.

He lay there and thought: all right. This is the situation.

They loaded him onto the litter with five others.

He could not see who the others were — they were stacked above and beside him on the litter, the weight of them making it hard to breathe, and his eyes had only a narrow downward angle without the ability to move his head. He could hear: the clicking liquid sounds of the alien language, short exchanges between two of them. The sound of the litter moving over the cobblestones of the market square. The lake — the lake was audible from here, the particular sound of water at rest in the specific way Lakeheight's lake sounded, the sound he had been sleeping alongside for six months.

It was the same sound. Everything else had changed and the lake was the same sound.

He identified one of the others on the litter by a sound: the specific pattern of breathing that Willem had when he was managing pain or distress through controlled respiration, a thing Randal had heard exactly twice before in fifteen years and recognized immedi-

ately. Willem was on the litter. That was two things at once: relief that he was alive, and knowledge that he had not escaped.

Danyel, he did not know. He could not know. He settled for: she was gone from the tunnel entrance before they arrived at the building. She was underground or she was in the forest. Either way, she was not on this litter, and that was what he had.

The litter was dropped at the shuttle's loading ramp with a lack of ceremony that was not cruelty — it was simply not slowness. They were unloaded one at a time by a pair of the Horde, each person slung over a shoulder and carried up the ramp, and Randal had a moment of being upright for the first time since the fall before he was tilted into a rack and slotted into it head-first, his feet extending into the aisle.

The interior of the shuttle was dimly lit in a way that suggested the Horde's vision operated in a different range than human vision, or that the light was intended for them rather than for cargo. The racks went floor to ceiling along both walls, each a narrow metal cradle the approximate size and shape of a sleeping berth on a ship. He was in the third row from the entrance, eye-level when stood upright, which meant he had a direct sightline down the central aisle.

A rough, scaled hand clamped something around his left calf. Metal, cold. It tightened with a mechanical click, and for a moment the paralysis was the only thing happening, and then something inside the cuff moved — he could feel it, a small sharp pressure that was not quite a puncture and was not quite not a puncture — and a heat spread upward from his leg through his whole body with the specific thoroughness of something that was not a weapon, exactly, but was working very deliberately on his nervous system.

The paralysis that had been loosening at the edges, the small returning capacity of his hands and jaw, reasserted itself completely. He understood: the weapon had used up its chemical agent, and this was the maintenance dose, and it would continue for as long as they needed it to continue.

He blinked. He breathed. He could hear the loading continuing

— the sound of more litters arriving at the ramp, more people being carried in, the specific systematic quality of the Horde's process running at its designed efficiency. He could feel the vibration in the rack as each person was loaded, each new addition a change in the ship's weight distribution.

He could not do anything else.

He thought: all right. He had thought this before, in situations that were bad in other ways — in Spessarta, waiting for the siege to resolve, in the long weeks of the march south when the column had been moving without a clear destination and the exhaustion had been the enemy more than anything else. All right had been the thing that came after the inventory of the situation was complete and the inventory showed that the available options were limited and that the limited options were better than no options at all.

What were the limited options.

He could think. His mind was entirely his. They had taken his body; they had not touched his cognition. He could think about what he knew of the plan — the sequence Taryn had described in Verdant, the shuttles, the EMP, the timeline. He could think about who was on this shuttle and what they would need to be able to do when the EMP fired and the leg cuff released and the ability to move returned.

He could transmit.

He had not thought of it immediately. He had been on the floor of the stairwell and then on the litter and then in the rack, and each transition had been consuming enough that the obvious thing had not surfaced until now. The crystal was embedded in his skin. It was biological. It was not electronics that would burn in an EMP. It was not affected by the paralytic compound. The Horde had checked his clothing and confiscated the relay components he carried as equipment, but the crystal itself was below the skin and would not show on any scanner that was looking for metal or electronics.

He was still connected to the network.

It took him longer than he would have liked to compose the transmission, because composing a transmission without being able to

move your face or hands required a kind of internal discipline that he had not needed to deploy before, the specific stillness of directing cognitive output through a system that operated on intention rather than muscle. He had done it before, in relay sessions, but not like this.

He composed it anyway.

The message was brief by necessity and by preference: *I'm on the shuttle. I'm functional. Tell me what you need.*

The response came back in less than a minute, which meant Misha had been watching the crystal network for him. It was also brief: *Alive. Good. Stay silent. We will contact when we need you. R — D is underground. W is confirmed on your shuttle.*

Randal lay in his rack and breathed with the autonomy his body still allowed him, and noted: Danyel was underground. Willem was confirmed on the shuttle, which meant the network had found him too, or inferred his presence from the absence of his signal from outside the craft. It meant Misha knew who was where and was managing the information.

The loading continued. The shuttle grew heavier around him. The sound of the lake was gone now — the ramp had closed — and there was only the interior sounds of the craft, the specific ambient register of a machine that was doing its job.

He lay still and thought about what he would need to do when he could move again.

The alien loading coordinator had one more rack to fill in this section before moving to the aft compartment.

It had been running this operation for eleven cycles across seven worlds, which was the experience metric the deployment system used for personnel assignments, and the metric had been accurate: after eleven cycles, the operational flow of a single-city harvest had become something close to reflexive. Not quite reflexive — reflexive

implied absence of thought, and the loading coordinator was not absent of thought, it was simply efficient. The distinction mattered to it, though it did not expect the cargo to appreciate the distinction.

The current harvest was producing lower yield than the pre-mission assessment had projected. The atmospheric preparation had been thorough — Tremayne's reports had been detailed and accurate in every measurable dimension, and the coordinator had flagged its appreciation of the preparation quality to the mothership's operational log — but the population had clearly received some advance warning and had moved more efficiently than the baseline projections for a colonial population in this stage of development. The tunnels had absorbed most of the density centers. The surface yield was perhaps thirty percent of projection.

This was acceptable. Below optimal, but acceptable. The processing facility in the northern field was operational and the secondary sites were being established. The coordinator had revised its own projections upward for the subsequent harvest cycles: the tunnel populations would need to be extracted, which the planetary assessment had flagged as a higher-effort operation, and the effort allocation was within acceptable parameters.

The coordinator checked the rack count, confirmed the section was loaded to capacity, and moved aft.

It did not think about the cargo as individuals. This was not cruelty. Cruelty required a frame in which the cargo had a status worth violating. The coordinator's frame was operational: material to be processed, in the specific quantity available, managed efficiently toward the designated end. The frame had been adequate for eleven cycles across seven worlds, and the coordinator had no reason to revise it.

The aft compartment had four empty racks. The next litter would be arriving at the ramp in approximately four minutes.

The coordinator prepared to receive it.

Time was difficult to measure from inside the rack.

Randal tracked it by the vibration patterns — each docking, each load, the specific signature of the shuttle taking on weight — and by the crystal transmissions that came through at intervals from Misha, brief and functional, confirming status across the network. The transmissions told him more than their content: each one that arrived meant the network was intact, Misha was functioning, the plan was still in motion.

The shuttle lifted twice during his time in it. Lifted, flew for a period, landed, resumed loading. The second landing was longer, and the vibrations from outside were different — he could feel through the rack's metal the specific quality of a place with more activity around it, more machinery, a structure being built. The processing facility. He was at the processing facility.

He composed another transmission: *At the facility. Loading not complete. Still functional. W is in the rack above mine — I can identify him by breathing.*

The response: *Confirmed. Timer is running. Hold position.*

He had not asked what timer Misha meant. He knew what timer Misha meant. He knew the general shape of the plan — the shuttles, the EMP, the satellites. He knew that the timer would be the satellites' attack sequence, and that the EMP would fire before the satellites did if the plan worked as designed. He knew that when the EMP fired, the leg cuffs would release, and his muscles would begin returning to voluntary control, and there would be perhaps forty Horde crew members in and around the processing facility and a shuttle full of humans who had not been able to move for some hours.

He thought about what he knew of the facility's layout from the outside vibrations. He thought about the position of the ramp relative to the rack section he was in. He thought about which of the humans in the racks were likely to recover function fastest, which was probably the ones who had been loaded most recently and whose chemical dose was freshest and therefore most nearly spent.

Don Jones

He thought about this for a long time, because it was what he had to do, and because it was better than the alternative, which was to think about the weight on his chest and the narrowness of the rack and the darkness and the fact that he was forty-one years old and had spent fifteen years building something and it had come to this particular place and posture.

He did not think about that. He thought about the ramp.

He thought about the ramp for a very long time.

Then Misha's transmission came through, and it was three words, and the three words were: *Get ready now.*

10

THE NOTIFICATION CAME through the interface while I was managing the fog coverage over Verdant's outer settlement ring.

I was in the fourth hour of what had become a continuous session — the Verdant ground team had completed its first pass through the outer ring and was establishing a staging area in the northern farmland, the fog was keeping their infrared suppressed enough that they had not yet attempted the inner residential quarter, and I had forty-two operators across the continental network all doing their particular part of the work that was keeping people alive. The interface chord was dense with information, forty-two tones in the overlay plus the satellite feed plus Misha's relay traffic plus Mongoose's operational channel, and I had been holding all of it for four hours and I was not anywhere near my limit yet, which was a thing I was noting without being proud of.

The notification arrived as a change in the installation's deep tone.

Not a message, not a sound, not anything I could have described to someone who didn't work through the interface. The installation's fundamental resonance — the hum that ran through the floor and the

walls and the interface pads and that I had been hearing since before I knew what it was — shifted by something less than a semitone, a change so small that I would not have caught it if I had not been living inside the tone for six months. I caught it. I attended to it. I sent a query.

The response came back in the notation the installation used for formal system messages: **SATELLITE NETWORK STATUS UPDATE. SECONDARY ALERT PROTOCOL: ACTIVE ENGAGEMENT POSTURE CONFIRMED. TRIGGERING CONDITIONS MET. PLAN NINE UNSEALING: AUTHORIZED. GENE-LOCK CONFIRMATION REQUIRED.**

I held all forty-two operators in the overlay and confirmed the gene-lock in the same moment I understood what the notification meant, which was that I was sixteen years old and the Horde was landing in the northern farmland and a man who had been dead for two centuries had built the threshold at exactly this point for a specific reason: by the time the satellites reached active engagement posture, the people on the surface would have the least possible time to read the document and the most possible need for what was in it.

Hollis was precise that way.

Gene-lock confirmation accepted, the installation said. Plan Nine is available at Commander level.

I set it to queue. I had forty-two operators and a fog network and a Horde ground team and I was not going to stop the work to read a document, not yet. I knew the shape of what was in it. I could hold the shape for another hour.

I went back to the fog.



The hour ran to two, and then to three, before I came up for air.

The Horde's first-day operational pattern was becoming clear through the accumulated observations of Jovan in Alabaster and our

own network in Verdant: they were systematic but not fast. They established the processing facility first, making it operational before expanding the harvest work, which meant the rate of collection in the first day was lower than it would become. Mongoose had modeled this from the Alpha Centauri records and had given me a window: if the processing facility took forty-eight to seventy-two hours to reach full capacity, we had approximately two days before the shuttle frequency increased significantly.

Two days was not enough time to do everything. It was enough time to do the things that had to happen first.

Calla had been on the network for the full session and was showing no sign of flagging — she had that quality I had been watching develop for two months, the specific endurance of someone whose connection to the installation was not effortful in the way it was effortful for most operators, but something more native, something that used a different reserve. I had stopped checking on her at the two-hour mark and started trusting it, which was the correct adjustment.

At the three-hour mark I said: I need twenty minutes. Hold the fog network at current parameters. Route any escalation from the ground team's zone to Calla's authorization level.

The network confirmed. I took my hands from the pads and sat in the interface room with the hum in the floor and the autumn darkness outside the alley door and the specific exhaustion of a body that had been still for three hours while the mind inside it had been operating at full capacity.

Then I put my hands back on the pads and I opened Plan Nine.

The document was long.

I had expected the technical specifications — the shuttles, the fuel calculations, the targeting mechanics. What I had not fully prepared for was the register of it. Hollis wrote the way he had

dictated in the recording I had heard: precise, sequential, no editorializing, with the specific quality of a man whose sentences were exactly as long as they needed to be and stopped there. But inside the precision was something else. Not warmth, exactly. The specific quality of someone who had been writing to no one for three hours and had stopped performing and was just trying to convey information accurately to a person they hoped existed.

He had written it in first person. This is what I did. This is what I built. This is what it will cost.

I read it the way I read things that mattered: carefully, without skipping, letting each section complete before moving to the next.

The first section was the situation summary — the same material he had put in the recording, condensed to three paragraphs. The Horde, the pattern of their visits, the terraforming trajectory that put Achillios in range. He had written it for someone who might not know any of this, and then had added a parenthetical in brackets: (If you're reading this during active engagement, you already know most of what I'm about to describe. Read it anyway. Context matters more under pressure, not less.)

I read it anyway.

The second section was the shuttle specifications.

He had given each shuttle a designation: S₁, S₂, S₃, S₄. S₁ and S₂ carried the explosive payloads. S₃ carried the EMP generator. S₄, he wrote, had shown propulsion anomalies during pre-installation testing and he had been unable to resolve them in the available time; he had left it sealed in the cavern with the others in case two centuries of geological settling had resolved the issue, but he had not been able to account for it in the plan and recommended treating it as unavailable.

The explosive payload specifications for S₁ and S₂ were expressed in the engineering notation of someone who understood that the reader might not be an engineer: yield equivalent to the combined explosive force of approximately forty megatons, sufficient to catastrophically compromise any vessel of the motherships' docu-

mented class within a radius of two hundred kilometers. He had added a note: I have verified this calculation against the Alpha Centauri strike records three times. I am confident in the yield. What I cannot guarantee is that the motherships' hulls have not been modified in the intervening years. I have built in a margin of fifty percent. If the yield is insufficient, the margin will not save you. It is simply the best I can do.

Forty megatons.

I did not have a frame for forty megatons. The largest explosion I had direct experience of was the demolition blast that the city engineers had used to clear the rock slide on the eastern road two years ago — a controlled charge that had produced a sound I could hear from inside the Tower three kilometers away and a column of dust visible from the interface room's upper observation point. That had been a few hundred kilograms of the chemical compound they used for controlled demolition.

Forty megatons was not a unit I could place in my experience. I placed it in the category of sufficiently large to do what it was designed to do, which was the only frame available.

The targeting mechanics for S₁ and S₂ occupied three pages of careful orbital notation. I could follow the reasoning — Mongoose had been walking me through the orbital mechanics for weeks, and the notation was internally consistent — but the specific calculations required the satellite network's current tracking data, which Mongoose had already been integrating. The key line was in the summary at the end of the section: Shuttle deployment from the planet's surface must occur within a specific launch window relative to the motherships' orbital position. The window is approximately ninety minutes wide at any given time, recurring every fourteen hours based on standard orbital mechanics. Mongoose will know the current window.

I filed this and kept reading.



The third section was S₃.

The EMP generator had its own section, distinct from the explosive payloads, and I understood why when I started reading it. The generator was the most technically complex component of the plan and also the one with the most variables. Hollis had written it in a different register from the rest of the document — slightly more compressed, the specific quality of someone who was writing about a piece of equipment they had designed themselves and whose limitations they understood intimately.

The generator had been hardened against the electromagnetic pulse it would produce — otherwise the shuttle carrying it would have gone dark along with everything else in range — but the hardening was imperfect, and Hollis was honest about this: S₃'s navigation systems would likely be degraded after the first firing, and would probably be nonfunctional after the second. The flight path was therefore critical: it had to be planned before deployment and held as precisely as the degraded navigation allowed.

The flight path he had calculated covered the entire continent in a sequence of seven passes, each timed to fire the generator over a cluster of landing zones at minimum altitude for maximum coverage. He had based this on the historical Horde landing pattern from Alpha Centauri — the specific distribution of their sites, the spacing they maintained between processing facilities, the geographic logic of their operational deployment. He had noted: If the Horde's landing pattern on Achillios differs significantly from the historical pattern, this flight path will need to be recalculated. Mongoose will know.

The generator's range at minimum altitude: approximately forty kilometers on a side. At the shuttle's designed cruise altitude, the pulse would reach everything within range. Every piece of electronic equipment, alien and human alike. The Horde's shuttles, which ran on systems that were almost certainly not EMP-hardened since they had never needed to be. And everything else.

He had written this plainly. Not with apology — the document had no apologies — but with the specific precision of someone who

had made a decision and was documenting both the decision and its costs.

The terraforming network is electronic and will be destroyed by the EMP. The fog machine control systems are electronic and will be destroyed. The communications network is partially electronic and will be severely damaged. The ansible relay infrastructure will be destroyed. Much of the planetary management capability that currently serves the colony's survival will not survive this action.

I sat with that for a moment.

I had known this, in the way I had known the shape of it from the surrounding files and from what I had told Randal. But knowing the shape of something and reading the plain enumeration of the cost were different experiences.

He had continued: The colony was farming here before the fog machine network reached its current operational scope. The colony will be capable of farming here afterward. The atmospheric adjustment capacity will be lost, but the atmospheric progress already made is largely irreversible on a human-civilization timescale. The weather will be less managed, less predictable. It will not revert to the pre-terraforming baseline. The farms will continue to produce.

I am not writing this to make the cost seem smaller. It is large. I am writing it because I want the person reading this to know that I considered it. That I ran the numbers. That what I am proposing is not casual.

I kept reading.

The fourth section was the one I had not expected, even knowing as much as I did. It was labeled, in Hollis's notation: Regarding the people in the alien shuttles at time of EMP deployment.

I stopped for a moment before I read it. I had known this was coming — Randal had articulated it in the meeting in Verdant, months ago, the obvious implication that neither of us had needed to say fully. But Hollis had written it anyway. I appreciated that.

He had written: The alien processing facility will contain human prisoners at the time of EMP deployment. Some of these people will

be inside alien shuttles that will lose power when the pulse fires. Some of those shuttles will be in flight at the moment of deployment. I cannot give a precise number. Based on the historical pattern, it is likely to be in the hundreds.

A paralysis agent appears to be involved in the Horde's capture methodology, based on Alpha Centauri survivor accounts. If the agent remains effective at the time of EMP deployment and human prisoners cannot move voluntarily, crashes will likely produce casualties.

I have no solution to this problem. I thought about it for a very long time and I do not have a solution. What I built instead is this: the EMP deployment is not timed to the beginning of the ground operation but to the end of it — by which I mean, as late as possible while still being effective, after the processing facility has been loaded rather than during it, to minimize the number of people in the shuttles at the time of deployment. The difference between deploying at the beginning and at the end is likely measured in hundreds of people. It is not a solution. It is a reduction.

I am sorry that this is the plan. I built it because the alternative was not building it.

I set the document down — I did not set it down, I was reading it through the interface, but I withdrew my attention from it for a moment and sat with the interface room around me and the hum in the floor and the specific quality of a place that was exactly itself regardless of everything else.

He was sorry. He had been sorry, two centuries ago, in a cramped office on a ship I had never seen, and he had documented the apology in a sealed record that nobody could read until the thing it was sorry about was happening. He had done the best he could. He had known it wasn't enough and he had done it anyway and he had told me.

I thought about Randal, in his rack, thinking about the ramp.

I finished reading the document.

The fifth section was the gene-lock and the activation protocols, which I read carefully because the specific sequence mattered and because Hollis had written it in the same plain style as the rest: the authorization command, the shuttle executive system confirmation signal, the specific phrase that would bring the systems from sealed storage to ready status. He had noted: The shuttle systems have been in storage for approximately two centuries. I have no way of knowing their current condition. The fuel compounds are stable for geological timescales and I am confident they are intact. The electronics are the variable. I have hardened the critical navigation and detonation systems as thoroughly as I was able. I believe they will function. I was not able to be certain.

He was not able to be certain.

I noted this and moved on.

The sixth section — the last before the closing notes — was titled: What Mongoose knows.

It was half a page. It said: The planetary AI designated Mongoose has been given full operational briefing on Plan Nine, including information not contained in this document. Mongoose has been waiting for you. I trust its judgment. Please extend it the same consideration.

I would have smiled if I had not been so tired. Hollis, two hundred years ago, vouching for Mongoose to the person who had been working alongside Mongoose for three years. The specific courtesy of someone who understood that the people they were writing to would not know each other and was making an introduction anyway.

The closing note was three paragraphs.

The first said: I built this plan for someone I don't know, from a situation I couldn't fully predict, with tools that will be two centuries old when you read this. Every assumption I made could be wrong. Work around the wrong assumptions. The core of it — use the satellites and the shuttles to destroy the motherships, use the EMP to disable the ground equipment, protect the people in the warrens

until the ground teams are neutralized — is sound. The details are adaptable. Adapt them.

The second said: You are probably young. The people who end up in these positions tend to be young — the machines seem to prefer it, and I have my theories about why but they are not relevant here. Being young in this situation is not a disadvantage. You know things I don't know. The colony has had two hundred years to understand itself since I was last in a position to observe it. Trust what you know.

The third said: I don't know your name. I hope you have someone good beside you. I hope you've slept recently.

He had hoped I had slept recently.

I had slept four hours in the past thirty.

I put the document down — I withdrew from it, carefully, the way you withdrew from something you needed to carry for a while — and I asked Mongoose: Is there additional material? The section labeled 'What Mongoose knows'?

:Yes,: Mongoose said. :I have been holding it since the seal opened. Would you like it now or after you have acted on the primary document?:

After, I said. There is a sequence.

:Yes,: Mongoose said. :There is.:

HOLLIS — SEVENTEEN MONTHS BEFORE THE COLONY SHIPS ARRIVED AT ACHILLIOS

The fuel transfer took eleven days.

Not eleven continuous days — the work was done in shifts, four hours on and four hours resting, because the fuel lines ran hot and the connection points needed monitoring and fatigue was the thing most likely to produce an error at a connection point under pressure. Hollis ran the first shift himself, not because his engineering skills were superior to his crew's but because asking people to do something dangerous required demonstrating willingness to do it yourself,

and because the specific worry of a task he had designed personally was not something he was able to delegate to someone else's vigilance.

The four shuttles were in the secondary bay. The bay had been designed for equipment storage on the return journey, which there was not going to be — there was no return journey, the colony ships were one-way transports, the secondary bay had been empty for the entire transit. It was a large space: forty meters along the main axis, twenty wide, the ceiling high enough that the shuttles sat in it with clearance to spare. Hollis had spent time in this bay over the years, during the transit, going in to check on the equipment that was stored here or simply to be in a large empty space for a while, which was a need that the rest of the ship did not accommodate.

He was not going to a large empty space anymore. He was going to a place that was becoming something specific.

S1 was closest to the bay entrance. He had started with S1 because it was accessible and because starting with the accessible thing was how you built momentum. The fuel transfer involved routing lines from the reserve tanks — the fuel that had been allocated to the shuttle's own reserves for surface-to-orbit operations on the planet, which were now not going to happen — and from the two donor shuttles, S5 and S6, which would be stripped to their minimum functional load and then sent to the surface as ordinary landers. The stripping of S5 and S6 was its own operational challenge, but he had scheduled it for the following week. S1 first.

The lines ran from the reserve connection points along the bay's upper wall — he had installed the routing infrastructure three weeks ago, telling the relevant crew members it was a standard equipment reconfiguration — and down to the shuttle's external fuel intake. The fuel itself was a compression gel stored in insulated tanks: stable, dense, not volatile under ordinary conditions. The ordinary conditions were the thing he had spent eleven days being grateful for. An unstable fuel compound in a sealed bay on a ship carrying forty-

seven thousand sleeping people was not something he was prepared to contemplate.

He watched the flow gauges. He ran the pressure checks. He drank his tea from the thermos he had started bringing to the bay because the bay was cold and the shifts were long and the thermos was one of the things that made long cold shifts something other than ordeal. Lieutenant Okafor, who was on shift with him on the third day, had brought her own thermos. They had not talked much. They had watched the gauges together.

Near the end of the eleventh day, with S₁ and S₂ both loaded and sealed and S₃'s EMP generator bolted into the structural mounts he had calculated and installed over three evenings in the preceding week, Hollis stood in the secondary bay with the clipboard he still used for physical notes — a habit from before the digital systems were fully reliable and that he had never given up — and looked at what he had made.

Two shuttles loaded with enough fuel to produce an explosion he was not able to think about directly. One shuttle carrying a generator that would destroy most of the colony's electronic infrastructure when it fired. One shuttle he was not certain about.

They looked like shuttles. They had always looked like shuttles — the same swept-back profile, the same landing gear, the same passenger windows that were now covered with the equipment panels he had fitted. The specific quality of familiar objects that had been altered toward an unfamiliar purpose: they looked wrong in the way that a familiar face wearing an unfamiliar expression looked wrong, the wrongness in the relationship between the thing and what you expected it to be.

Mongoose was with him in the bay, through the speakers. It had been with him every shift.

"Last check on S₃'s mounting," he said.

"The mounting is within tolerance," Mongoose said. "All four attachment points are at specification. The generator's hardening casing is sealed and the diagnostic confirms functional status."

"Fuel degradation estimate over two centuries."

"I have run this seventeen times," Mongoose said. "The answer is the same. The compression gel is stable for three to four hundred years under the storage conditions in the cavern we have prepared. The honest answer is that no one has stored it for two centuries before, so the model is extrapolating. The degradation margin I have built in should be adequate."

"Should be."

"Should be," Mongoose confirmed. It did not offer more reassurance than it had. He had learned to read the spaces in its responses as a form of honesty.

He wrote something on the clipboard. Then he crossed it out. Then he wrote: S₃ nominal. All systems sealed. Installation complete.

"That's it," he said.

"That is it," Mongoose said.

He stood in the cold bay with the four shuttles in front of him and thought about the person who would send these things into orbit in two hundred years, who would know the plan because he had written it, who would be standing in an interface room on a planet he had looked at from orbit for nine months without setting foot on. He thought about what it would feel like to read the document and understand what these things were and what they were for. He hoped it was adequate. He knew it was the best he had.

"Let's close the bay," he said.

"Yes," Mongoose said.

He sealed the shuttles. He filed the paperwork that would direct the bay to be sealed and its contents classified as equipment reserve. He went back to his office and he began writing the section of the document about what the EMP would cost, which was the section he had been putting off for three weeks because he had not wanted to write it and because not writing it was not an option.

He wrote it.

I came up from Plan Nine slowly, the way you came up from deep water — not fast, because fast was how you got the bends, how the pressure differential produced damage. I let the document close in the interface and I sat with the hum in the floor and the forty-two operators still in the network overlay and the fog still running over Verdant's outer ring and I let the two things occupy the same space for a moment: what I had just read and what was currently happening outside the building I was sitting in.

They occupied the same space without difficulty. They were the same situation.

The motherships.

I had been watching them through the satellite feed for weeks, but the satellite's orbital imagery had been showing them as objects in space — bright points of reflected light against the dark, occasionally resolvable into shapes when the satellite passed at optimal angle but never fully detailed, never fully present. Now that the threshold had been met and the full satellite command capability was available to me, I could ask for more.

I asked.

The satellite imaging capability in active engagement posture included a high-resolution mode that the secondary alert protocol had not unlocked. I had not known this. Hollis had apparently understood that you needed to see what you were targeting, which was obvious in retrospect but had not been in my planning.

The feed came through the interface not as a tone but as a visual overlay — not something I saw with my eyes but something the interface translated into spatial awareness, a rendering that my mind received as presence. The same way I perceived the fog network or the force-manipulator field as a kind of extended body sense, I now perceived the satellite's high-resolution imaging as vision.

I looked at the motherships.

They were vast.

I do not know how else to say it. Vast was the word that arrived first and was accurate and was also entirely inadequate. I knew the dimensions from the records — the historical documentation of the Horde's vessels at Alpha Centauri and Kobold had included estimates extrapolated from the available imagery — but knowing a dimension and perceiving a scale were not the same thing. The records had said: approximately four kilometers in length, asymmetrical construction, primary hull of materials not consistent with human manufacturing processes. I had read those words and stored them.

What the interface showed me was something else.

They were not clean. That was the first thing that separated the reality from every image I had formed: I had imagined alien ships as having the quality of deliberate design, the specific aesthetic intention of things built on purpose. These ships had been built on purpose, certainly, but they had also been used continuously for what the historical records suggested was hundreds of years, and use at that scale over that time produced a specific character. The hull was layered. Not damaged — layered, in the way that a tool that has been in long use accumulates the texture of its working, the same way an old piece of equipment bore the marks of all the times it had been repaired and adjusted and modified for a new task. The surface was not smooth. It was a record.

The docking bays were open on both ships, the long panels retracted into the hull in the way of hatches on a very large vessel. From this angle and at this resolution I could see the interior illumination — a specific frequency that the satellite imaging rendered differently from the reflected sunlight on the outer hull — and in that light I could see the shapes of more shuttles, still nested in their berths, waiting.

There were more than I had planned for.

The historical records had not specified the number of shuttles each mothership carried, because nobody had been close enough to count. I counted now, using the imaging overlay, going through the

accessible docking bays bay by bay. Twenty-three in the first ship, from what I could see. I could not see all of the second ship's bays from the current satellite position, but what I could see suggested a similar number.

Forty-plus shuttles. Of which two had already deployed.

I set this number in the part of my mind where I stored things that would require action later and could not be acted on now, and I continued looking.

The geometry of the ships was not right.

I mean this in a specific sense: the geometry was not wrong in the way that something broken or damaged was wrong. It was wrong in the way that a logic was wrong when it was internally consistent but operated from different premises than yours. The ships had been built for space. They had never touched a planet — the hull markings made this clear, the wear patterns that space produced were distinct from the wear that planetary atmosphere and gravity produced, and these ships had only one kind. They had been assembled in orbit or in open space by beings whose entire relationship to the physical world was conducted in that medium, and the result was something that human hands would never have built, not because it was beyond human capability but because human capability had been shaped by gravity and weather and the specific constraints of building things that had to stand on ground.

The ships didn't need to stand. They had never stood. Their mass was distributed the way the mass of a thing was distributed when the only forces acting on it were vacuum and inertia and the slow pull of stellar gravity at a distance. The result was a kind of structural honesty — no unnecessary strength against loads that would never come, no accommodation of a surface that would never exist beneath them — that was beautiful in its way and completely alien in the same way.

I looked at them for a long moment. Not for tactical purposes — I had the information I needed. For the other thing. For the specific weight of understanding that these objects, which were so manifestly

things that had been built and crewed and maintained and navigated by minds that thought and wanted and had been doing this across the galaxy for longer than human civilization had existed — were real. Were here. Were in orbit above the planet I was living on.

I thought about Hollis, nine months in orbit, looking at that brown and pale world from above. I thought about the colonists in their cryo-beds, forty-seven thousand people who had left a civilization behind and come to the farthest edge of the possible and built something worth having. I thought about my mother, in Alabaster's warrens right now, who had spent twenty-six years running a tavern and raising two sons in a city that hummed, and who had no idea what was in orbit above her.

I did not stay with this long. There was not time.

I sent the activation query.

The response was not immediate. There was a delay of approximately four seconds, which was not a processing delay but a mechanical one — the installation querying the cavern where the shuttles had been sealed for two centuries, confirming the cavern's location was intact, confirming the communications link to the shuttle executive systems was functional. Four seconds was the time it took for that signal to travel to the cavern and return.

Then: Shuttle executive systems confirming. S₁: nominal. S₂: nominal. S₃: nominal. S₄: executive system unresponsive. Confirmation of S₄ non-operational.

Hollis had been right about S₄. Two hundred years in a cavern had not resolved its propulsion anomalies.

Three shuttles. Two explosive, one EMP. It was what we had and it was sufficient and Hollis had planned for exactly this.

S₁ and S₂ executive systems: ready status authorized. S₃ executive system: ready status authorized. Initiating wake-up sequence for three vehicles. Estimated time to full operational readiness: eighteen hours.

Eighteen hours.

The systems had been asleep for two centuries. They were

waking up, slowly, the way systems did when they had been in deep storage long enough that each subsystem had to confirm its own integrity before the next one came online. Eighteen hours was an engineering estimate. Hollis had built in margin. Mongoose would monitor.

I felt the chord change in the interface overlay — not the fog network, not the operator tones, something deeper. The installation itself, the hum that ran through the floor, shifted by something I could hear because I had been listening to it for six months. Not louder. More present. The quality of a system that had been holding something in reserve for a very long time and had just been told that the holding was over.

Mongoose said: :I have been waiting for that for a long time.:

I know, I said. Tell me the launch window.

:The next optimal window opens in eleven hours and forty-three minutes. The window is ninety minutes wide. The following window is fourteen hours after that.: A pause. :Commander. There is a constraint you need to know about. The satellites' attack sequence will initiate approximately six hours after I report the active engagement confirmation to their targeting protocol. The motherships will be in their targeting solution at that point. If the colony shuttles are not deployed before the satellites fire —:

They'll be in the debris field, I said.

:Yes. The shuttles need to reach the motherships before the satellites' first strike. That means the optimal window is the one eleven hours from now, not the one after it.:

Eleven hours.

The fog network was running. The operators were working. Randal was in his rack. The Horde was building its processing facility in the northern farmland. And somewhere in the installation's deep infrastructure, three two-century-old shuttle systems were running their wake-up sequences, checking each subsystem in turn, confirming that they were still what they had been designed to be.

Verdant

I asked: The additional material you mentioned. Hollis's sealed record.

:Now?: Mongoose said.

Now, I said. There's eleven hours.

:There is,: Mongoose said. Then, in the register it used for things that were not operational updates: :He asked me to tell you something, before I give you the record. He said to tell you that he was sorry it was this complicated.:

I know, I said. He wrote it in the document.

:He also said it to me,: Mongoose said. :In the bay, when he had finished loading the shuttles. He sat with me for a while afterward. He did not say very much. But he said that. I wanted you to have both versions.:

I sat with the hum in the floor and the active engagement posture of the satellites and the three shuttle systems running their slow wake-up sequences in a cavern somewhere in the earth beneath me.

Thank you, I said.

Mongoose gave me the record.

I read it.

II

THE HORDE'S Verdant ground team made its first pass through the outer ring in four hours and was gone before the fog thinned enough to see them leave.

That was Day One. That was the thing I had not expected: the first pass was reconnaissance, not harvest. They had moved through the outer ring's streets with their scanners finding the tunnel entrances and the occupied buildings and the specific geography of a city they had been briefed on — I was certain of this now, had been certain since the morning, certain in the way that the logical conclusion of four months of bidirectional transmission was certain — and they had not attempted to force the tunnel entrances or stun anyone who had made it underground. They had simply mapped. They had gone back to their shuttle with their data. The shuttle had lifted and returned to the processing facility.

Mongoose told me the pattern was consistent with historical documentation. A first-pass survey. The harvest would begin on Day Two.

That gave us the night.

I had been at the interface for nine hours by the time the second ground team arrived.

This was not the first team — I could tell by the deployment pattern, the way they spread across the outer ring with a precision that suggested they had the morning's survey data integrated into their operational plan. Four of them again, but they were moving differently: not mapping now, moving with purpose, toward specific locations. They knew where the tunnel entrances were. They knew which buildings had been occupied that morning and had people in them. They were not searching. They were collecting.

"They're at the eastern quarter," Misha said through the relay. Her voice was low and clipped, the specific economy of someone transmitting from a position where noise was a liability. She was on the roof of the textile guild's storage building, three stories up, at an angle that gave her sightlines down two of the main approach streets. I had asked her to be my eyes outside the building because the satellite imaging showed me the macro picture but not the specific detail of what was happening at street level, and Misha had considered the request for approximately two seconds before saying: *Tell me where you need me and what you need me to see.*

She was three blocks from the nearest ground team member. She had been on that roof for four hours.

"Moving north toward the lane behind the grain market," she continued. "Two of them. The other pair is still in the alley block — they've found something, they're going inside."

"Occupied building?" I asked.

"Had to be. Nobody we moved during the day. Might be one of the households that didn't answer the wardens." A pause, the specific quality of someone watching something happen in real time and processing it faster than they're speaking. "They're coming back out. Two people. One of them is moving on their own — they got out, someone pushed them out, I can't tell. The other—"

"I see it," I said. The satellite overlay had caught the thermal signature: a person going limp in the street.

"Force manipulator," I said through the interface network. "Southeast approach lane, coordinate seven-four. Trip them."

Calla's tone surged in the chord.

I had stopped being surprised by this, or was in the process of stopping. Calla's relationship to the force-manipulators was not the same as any other operator I had worked with. Most operators, when they applied force through the interface, had a quality of effort to it — the sensation of pushing against something, the directed exertion that produced the physical effect on the other end. Calla did not have this quality. She applied force the way she seemed to do most things: with the attention of someone who has heard the exact pitch required and is producing it rather than searching for it. The force did not feel effortful through the network. It felt chosen.

The effect: one of the two ground team members in the southeast lane stumbled hard, catching their foot on nothing visible, going down to one knee. The second turned to look. Three seconds — the person on the ground was up in three seconds, because they were not injured but redirected, and they were back to work in five — but three seconds was enough.

The person who had been moving on their own made it to the tunnel entrance while the pair was occupied with the stumble.

They were inside.

"Good," I said.

"Was that me?" Calla asked. Her voice was present in the network rather than spoken aloud — she had learned in the first week of crisis operations to route non-essential communication through the interface overlay rather than interrupting the physical room, which was an adjustment most operators took months to make naturally.

That was you, I said back through the same channel.

How precise was it? It felt precise but I don't know what precise means at ground level.

Three seconds. The stumble took them off their task for three seconds and one person used that gap.

A beat. Then: I can do better than three seconds.

I believed her. "Hold the readiness," I said. "We're going to need it in the northern quarter in about eight minutes — they're going to reach the lane adjacent to the old barrow road."

"How do you know that?" This was ORETH, one of the Verdant operators I had brought on network two months ago — twenty-eight, quick, with the slightly guarded quality of someone whose abilities had developed faster than their confidence in those abilities. Good operator. Still working out when to trust his own read.

"Because they've covered the eastern quarter," I said. "They're working systematically. Northern quarter is next." I paused. "Watch their spacing. They maintain about forty meters between pairs. If you see them close that spacing, they've found something specific."

"Their spacing is closing," Misha said from the rooftop. "North-east intersection. The scanner — the wrist device — the lead one has it up."

"Someone's still in the northeast residential block," I said. It was not a question. I had checked the residential block in the afternoon and thought it clear, but thought was not confirmed. "Misha, which building?"

"Second from the corner. Second floor, I think — they're looking up."

I sent a tone through the network — the specific authorization frequency for the Verdant building in question, the force-manipulator protocol at interior resolution — and felt Oreth respond before I could direct him to, his tone reaching into the building with the specific question the machines could answer: *Is there a presence here? Can the space be accessed?*

The machines said: yes. Someone was in the second-floor room.

"Oreth," I said. "Interior work. I need them at the back wall of that building. Can you open the access hatch to the sub-basement from inside without them needing to touch it?"

He was quiet for one second — the particular silence of someone calculating. "The hatch latch is iron," he said. "I can move iron. Yes."

"Do it gently. They're frightened."

The network registered his work as a shift in tone: careful, sustained, precise. Below the building, the sub-basement hatch — the same tunnels that connected to the main warren system three blocks east — clicked open.

"Done," he said.

Misha's voice: "They went in. Both of them are at the building entrance now — they're going inside." A pause. "They're going to the second floor." A longer pause. "They've found the room. Nobody in it."

I exhaled.

"The building hatch?" I asked Oreth.

"Closed and re-latched," he said. "They won't find it without knowing it's there."

The two ground team members emerged from the building after ninety seconds, moved back into consultation with their partners, made the specific clicking-slurping exchange that I had started hearing as communication rather than just sound. Four voices, four different patterns. I had been listening to them long enough to develop the rudiments of an acoustic impression: one of them was shorter in the interval between sounds, more clipped; one tended to extend the slurring element; one was quieter than the others and spoke less often. I did not know what any of them were saying. I knew they were saying something.

"They're adapting," Misha said. "They came here with a plan that assumed a certain yield and they're getting a different yield. They're changing something."

"What direction are they moving?"

"Splitting again. Two toward the central market square. Two toward the meeting hall."

The meeting hall.

I was in the meeting hall.

"Fog," I said. "Thicker. Maximum density, everything within three blocks of the meeting hall, now."

The network surged. All seven Verdant operators on active duty

responded simultaneously — I could feel it as a chord change, the harmonic layer thickening as force was routed to the fog machine activation protocols, the atmospheric pressure system in the local stations driving water vapor into the air faster than the autumn temperature could absorb it. The fog that had been ground-level and thin in this block became in two minutes something you could not see your hand in front of, a white so dense that the thermal imaging I had watched through Jovan's descriptions would struggle to penetrate it without close range.

"They've slowed," Misha said. "They're using the scanner more. Sweeping in arcs."

"How close?"

"A block and a half. Moving at maybe half their previous speed." A pause. "Commander, they're not afraid of the fog. They're just being careful in it. The scanners compensate."

"I know." The fog was not a barrier. It was a delay. Delays were what I had to work with. "When they get within forty meters of the building, I need to know."

"I'll count you down."

She did. Forty meters, thirty, twenty-five. I held the network in the specific high state that precedes action — every operator attending, the system's resources allocated and waiting, the chord taut.

"Twenty," Misha said.

"Calla," I said.

"Ready," she said.

"Not yet. Let them close."

Fifteen meters. Twelve. Ten.

"Now," I said.

What Calla did next I experienced as a chord event before I understood it as a physical one. The tone she produced was not the applied-force tone I was used to hearing in defensive maneuvers — not the sustained push of a force wall or the directed trip of a stumble. It was something more complex: two tones simultaneously, one forward and one lateral, in a ratio that I had heard in musical theory

but never in interface work. A shear. Not a push but a shear — the force applied in two directions at once in a way that didn't move the target but destabilized its relationship to the ground, the specific physics of something being forced to choose between falling in two directions and choosing neither and going momentarily completely still.

Both ground team members in the forward approach stopped moving.

They did not fall. They stopped. For approximately four seconds, they stood in the dense fog with the posture of something that has discovered an unexpected constraint and is processing it.

Then they stepped back. Both of them. Three steps back, away from the building.

Misha's voice: "They're retreating. Not running — retreating. They're going back to their pair partners."

I sat with this.

"Calla," I said. "What did you just do?"

A pause that contained the specific quality of someone describing a perception that doesn't map to existing vocabulary. "I played a chord," she said. "Not a single force. Two forces in a specific interval. Like a dissonance — you can't resolve in either direction, so you step back from the whole thing." She paused. "I've been thinking about it since the morning. When the ground team paused after the child ran. I thought about what made them pause — they were ready to move and then something interrupted the motion, and I thought about what kind of force would do that and whether I could do it."

I thought about her forearm, the ink marks she wrote on herself during sessions so she wouldn't forget the tones.

"You calculated a dissonance frequency," I said.

"It was more like playing with it until the ratio felt right," she said. "I don't have the mathematics for it. I have the ear."

I had the mathematics. I had known for six months that the force-manipulation protocols were capable of more complex waveforms than any operator in the current network was using. I had not pushed

operators in that direction because the basic applications were what we needed for basic defense and the complex applications required a level of interface sensitivity that I had not seen in any operator since I came to Verdant.

I was looking at it now.

"Four seconds," I said. "The dissonance held them for four seconds."

"I think I can hold it longer," she said. "I was conservative. I wasn't sure what would happen."

"Don't try it again tonight," I said. "We don't know how they'll adapt." I paused. "But I want to understand what you did, fully, when we have time."

"I've written it on my arm," she said.

The ground team made two more passes through the outer ring over the next three hours. Both times they found less than they were looking for. The tunnels held. The fog held, thinning toward the end of each cycle but reestablishing before they could exploit the gaps. Oreth proved himself in the northeast quarter — twice more he opened interior hatches and closed them again before the ground team found the rooms, small precise operations that required the kind of sustained close-range attention that most operators lost during extended sessions. He did not lose it. I noted this.

At some point around the third hour, one of the younger operators — SENNE, nineteen years old, from a farmland family two settlements south, who had been on network for six weeks and was still developing the sustained concentration the work required — said, in a voice that was trying to be calm and was not quite: "How many of them are there? On the whole planet, how many?"

I had been waiting for this question. Not from Senne specifically, but from someone.

"Based on current shuttle count and historical deployment

ratios," I said, "approximately four hundred on the ground, across all landing sites. The motherships can each carry several hundred."

A silence in the network.

"And there are forty of them outside," Senne said.

"On this site, yes."

"And we're keeping them out with fog and..." He stopped. He did not have a word for what Calla had done.

"With fog and precision," I said. "Which is the correct tool for the situation we're in. We're not trying to defeat them. We're trying to outlast this operational period and preserve the people in the tunnels until the larger plan executes."

"What's the larger plan?"

I had not told the operators about Plan Nine. I had made this decision ten days ago and was revisiting it now, in the third hour of a sustained defensive operation, with a nineteen-year-old asking me a direct question.

"There are three colony shuttles," I said. "Hollis's shuttles. They've been sealed in a cavern since the colony ships arrived. They're armed. They woke up eighteen hours ago. The launch window opens in approximately eight hours." I paused. "When they launch, they're going for the motherships."

The network held this.

Oreth said: "Will it work?"

"Hollis thought so," I said. "He built in a fifty percent margin on the yield."

"And if he was wrong?"

"Then we use what we have and we adapt." I paused. "This is the only plan. It's a good plan. It was built by someone who thought carefully about a problem he couldn't solve any other way and left it to us to execute. We execute it."

Another silence, shorter.

"Eight hours," Senne said.

"Eight hours," I confirmed. "Keep working."

It was in the fifth hour that I first heard the change in Alabaster.

I want to be precise about what I mean by heard. The continental network overlay presented the installation nodes as tones — each node a consistent frequency in the harmonic layer, each one with its own specific character that I had learned over six months the way you learned the voices of people you worked alongside every day. Alabaster's tone was the deepest of the network, not because it was the largest installation but because of how long it had been running and the specific quality of a system that had been fully operational for five centuries. It had resonance that the newer nodes didn't have. It sounded like something that had been resonating for a very long time.

What I heard in the fifth hour was that tone changing.

Not going dark. Not dropping out of the network. Changing — the frequency shifting in the specific way a sound shifted when the thing producing it was being asked to work harder than its usual register. It was the sound of exertion. Of someone at the interface in Alabaster pushing the installation toward something it could do but was not doing effortlessly.

Sister Eva.

I had not been tracking her specifically through the network because the network did not present individual operators as distinct channels — it presented the installation as a whole, and what I could hear was the installation's state. But I had known she was up there, in the Tower's upper levels, with the force-manipulators. Evan had told me. She had declined to go underground. She had been working.

What she was doing to the installation's tone was consistent with someone running force-manipulator protocols at a level that the installation could support but that required significant draw from the system's resources. Something large. Something sustained.

I opened the Alabaster channel.

"Evan," I said.

A slight delay — he was in the middle of something, I could hear it in the quality of his response when it came. "Working," he said. Just the one word.

"What's happening there?"

"Eva is running the force-manipulators at the Tower's outer perimeter. Full deployment — she's using the upper-level installations to create a physical obstruction ring around the Tower's base." He paused. "She's been at it for two hours. She's not stopping."

"The ground team?"

"There's a team in the inner city. They have the Tower on their survey — they've been moving toward it for an hour. Eva is making the approach very difficult." Another pause. "She's very good, Taryn. The precision at her age, at this level of draw — I've been an operator for fifteen years and I'm watching her work and it's—" He stopped. "She's very good."

"Tell her to come down," I said. "Tell her the tunnels have capacity. Tell her Misha can cover the Tower approach from the rooftops and the operators can maintain the perimeter from the interface chairs."

A longer pause.

"She says she heard you," Evan said, "and she says she's in the middle of something and she'll consider it when she's done."

"Tell her being done is the point. There's nothing in the Tower worth—"

"Taryn." Evan's voice had changed. Not urgent — he had a quality of delivering difficult information steadily that I had come to recognize over three years. "She knows what's in the Tower. She's been in the Tower for forty-three years. She's not protecting the building. She's buying time for the east quarter evacuation — there are still families moving through the inner city toward the south tunnel entrance, and the ground team has a scanner and the south tunnel entrance is exposed for thirty meters before the covered passage begins." A pause. "She's keeping them on the west side of the Tower. If she stops, the team moves east."

I understood.

I did not say anything for a moment.

"How long does the east quarter movement take?" I said.

"Pell is coordinating. He says fifteen minutes."

"Tell Eva fifteen minutes."

"She says she knows. She's counting."

I withdrew from the Alabaster channel and returned my full attention to Verdant. Fifteen minutes. I held the network through fifteen minutes that felt like a longer unit of time than fifteen minutes usually occupied — the fog thinning and thickening, Misha's quiet transmissions from the rooftop, Calla holding readiness, Oreth watching the northeast, Senne working the fog density in the western approach with the focused precision of a nineteen-year-old who had been given a specific task and was doing it because the specific task was better than the thoughts that occupied the spaces between specific tasks.

At the end of thirteen minutes, I felt the Alabaster tone shift again.

This time it dropped — not gradually, in the way that a system under load dropped, but suddenly, the specific quality of a connection that had been active and had stopped. The installation was still running. The tone was still present. But whatever had been drawing it hard had stopped drawing.

My hands went still on the pads.

"Evan," I said.

His voice, when it came, had the quality it had in the Onyx assessment room, three years ago, when he had been sitting in a chair in an unfamiliar room having been brought there by people he did not yet know, and had told me things he had been carrying for six weeks. The specific flatness of someone managing their voice because they have decided that this is not the moment for it to be unmanaged.

"The east quarter families are in the tunnel," he said. "The south entrance is covered. The ground team moved west."

I waited.

"Eva," he said. And then stopped. And then: "Her interface session has ended."

The specific notation Mongoose used when an operator's connection to the installation terminated. Not when an operator chose to terminate. When the connection ended from the other side.

I held the network. I held the forty-two operators across the continent, all of them present in the overlay, all of them doing their work. I held the fog over Verdant's outer ring. I held the launch window, eight hours away, and Randal in his rack at the processing facility, and the three shuttle systems waking up in their cavern, and Hollis's voice in the document I had read an hour ago: *I don't know your name. I hope you have someone good beside you.*

"Keep working," I said. To the network, to Evan, to the room around me that was just a basement with packed-earth floors and old timber beams and the hum that was always there.

"Keep working," Evan said. His voice, just audible through the channel. "We're all right."

I don't know if he knew he had said it in the same words she had used. I think he did. Evan was precise about these things.

Three hours later, at the seventh mark of the night, Misha came down from the rooftop.

She came in through the alley door and sat in the chair along the wall that she always sat in during sessions and did not say anything immediately, which was the specific silence of someone who has been alone with a task for a long time and is readjusting to the presence of other people. I let it find its own length.

"They're done for the night," she said. "Both pairs. The scanner team at the northern farmland received them — I watched the shuttle come back for them from the rooftop." She paused. "They move differently when they're returning than when they're hunting."

Slower. Not tired — or maybe tired, I don't know enough about their physiology to know what tired looks like. But a different pace."

"Satisfied," I said, without intending to.

She looked at me.

"They collected what they could collect and they're going back to process it," I said. "They're satisfied the way you're satisfied after a day's work, not the way you're satisfied after winning something. We weren't an obstacle to them. We were a complication in the yield."

Misha was quiet for a moment. "How many people did they collect tonight?"

I had been tracking this through the tunnel warden reports and through Mongoose's satellite thermal counts. The number was not a number I had been ready to say aloud yet, and I said it now because it needed to be said and because Misha was someone who received numbers accurately rather than performing a response to them.

"Forty-seven from Verdant," I said. "From the other landing sites — Mongoose estimates two hundred to two-fifty across the network, based on the thermal counts at the processing facilities. Some of those are from the first day. Some are from tonight." I paused. "The Alabaster site is the largest. Jovan's last count before his relay went dark put the Alabaster facility at approximately ninety people."

Misha was still.

"Randal," she said.

"Still transmitting," I said. "He sent a status at the sixth mark. Functional. Holding position. He says Willem is in the rack above his."

Something moved in her expression that I did not catalog. She had known Randal longer than I had. They had been on opposite sides of things for years before they had been on the same side. Whatever they were to each other now was something the years had made rather than anything I had watched from the beginning.

"Seven more hours," she said.

"Seven and change." I paused. "The shuttle systems have

completed forty percent of their wake-up sequence. Mongoose says nominal across S1 through S3. Hollis built this well."

"He had sixteen years to build it," Misha said.

"He had sixteen years and one long night," I said. "Most of the important parts happened in one long night."

She looked at me. There was something in the look that was not assessment and was not sympathy and was something I did not have a word for — the specific quality of another person seeing you clearly at a moment when you are not performing anything.

"You should eat something," she said. "Calla has been in the chair for seven hours and should sleep for four if she can. Oreth should sleep. The second-shift operators are ready."

"I know," I said.

"But you're not going to sleep," she said.

"No."

"Because of Randal," she said. "And Eva."

I did not answer this directly. "Seven more hours," I said. "Then the window opens."

She stood. She had been on a rooftop for four hours in the autumn cold and she moved with the specific stiffness of a body that had been still in an uncomfortable position for too long. She stretched once, unselfconsciously, the way people stretched when they were too tired to maintain the social performance of not showing their body's needs.

"I'll get Calla to the sleeping room," she said. "And I'll bring you something to eat whether you asked for it or not."

"That's an efficient use of authority," I said.

"I learned it from you," she said, and went to find Calla.



I sat in the interface room through the dark hours.

The network hummed around me at the reduced intensity of the second shift — twenty operators instead of forty-two, the overnight

rotation that we had established in the first week of the invasion as the sustainable minimum for continuous coverage. The fog was maintaining. The Horde was back at the processing facilities. The satellites were in their active posture, charging their weapons, waiting for the sequence that Mongoose would initiate when the colony shuttles reached their launch positions.

Six hours. Five. Four.

Misha brought food, as promised: the dense bread that the Verdant kitchen produced and something warm in a bowl that I ate without specifically noticing what it was, which was the relationship I had been having with food for approximately seventy-two hours. I ate because she had brought it and because she was watching. I was aware that I was sixteen years old and had not slept in a meaningful sense in two days and was managing a continental crisis while sitting in a basement, and that these facts were more vivid than usual at three in the morning.

Randal's crystal transmission came in at the fourth mark.

Still functional. Facility is quiet — second shift operating. Fewer movement patterns through the hull. I think the loading is complete for this cycle. They run in shifts too. W is still directly above me — I can tell by the breathing. D is in the tunnels, confirmed. Getting ready now. I can feel myself wanting to tell you things that aren't operationally relevant and I'm choosing not to. Standing by.

I wrote back: *Noted. Seven-hour countdown from this message. Keep the crystal active.*

He came back in under a minute: *Understood. One non-operational item I've decided to include anyway: whatever Hollis built, it's good enough. I've had seven hours to think about the ramp and I know what I'm doing when it's time. Trust the plan.*

I sat with this for a long moment. Then I sent: *I do. Get ready.*

At the third mark, two hours before the window, Mongoose said: *Commander. Shuttle systems have completed their wake-up sequence. S1: fully operational. S2: fully operational. S3: operational with navigation degradation consistent with Hollis's projections — secondary navigation online, primary navigation degraded but functional. All three are ready for launch authorization.*

I had been waiting for this. I had been sitting with it for seven hours, the knowledge that it was coming, the shape of the moment when the waiting became action. It arrived now and I received it.

Launch window opens in one hour and fifty-eight minutes, Mongoose said. At window open, I need your authorization to initiate the launch sequence. The shuttles' executive systems will confirm your genetic signature and proceed. I will handle the orbital mechanics.

I need a moment, I said.

Of course, Mongoose said. In the register that was not an operational update.

I took my hands from the pads.

The interface room was quiet. The second shift operators were working in the specific focused silence of people who have been at something difficult for a long time and have found the level below concentration where the work happens without effort. The hum in the floor was present, as it always was. The alley door was closed against the autumn cold. Somewhere in the city, people were in their tunnels in the dark, three and four days underground now, eating the supplies that had been prepositioned, waiting for something they did not fully understand.

Somewhere above us, at an altitude I could not perceive and at a scale I had seen only through the interface's imaging, two alien ships were in orbit carrying their remaining shuttles, which would deploy again at dawn unless something stopped them.

Somewhere in a cavern in the earth beneath the meeting hall — I did not know exactly where, Hollis had not specified the location in the document and Mongoose had not told me — three shuttles were

sitting in the dark, two hundred years old, fully fueled, waiting for the word.

I thought about Hollis in the secondary bay, watching the fuel transfer through the gauges, drinking tea in the cold. *They looked like shuttles.* The wrongness in the relationship between the familiar thing and its new purpose.

I thought about the forty-seven people from Verdant in their racks. About Randal, thinking about the ramp for seven hours. About Eva, who had been precise for forty-three years and had spent the last of that precision on a thirty-meter stretch of exposed tunnel entrance, and whose interface session had ended from the other side.

I thought about Hollis's note: *I am sorry that this is the plan. I built it because the alternative was not building it.*

I put my hands back on the pads.

Mongoose, I said. Initiate the launch sequence on my authorization. Commander-level confirmation, genetic signature confirmed. Authorization code: Hotel-Lima-Sierra.

The installation registered the command. I felt it go through the network — not like the ordinary commands, not like the fog protocols or the force-manipulator authorizations. This went deeper, through channels I had known existed but had not used before, reaching into whatever infrastructure Hollis had built two hundred years ago and connected to the three systems now waking up in the earth beneath me.

The response came back in four seconds.

Authorization confirmed. Launch sequence initiating. S₁ and S₂ launch in sequence at window open in one hour and fifty-three minutes. S₃ launches forty minutes after S₁/S₂ to allow mothership destruction and debris field assessment before EMP deployment. Orbital mechanics confirmed. Targeting solutions locked.

And then, quieter, in the register Mongoose used for things that were not operational data:

Hollis would have been glad it was you.

I stayed in the interface chair. The operators worked around me.

Verdant

The fog ran over the city. The tunnels held their people in the dark. The night moved toward dawn the way nights moved toward dawn — incrementally, without drama, the stars shifting in their positions as the planet turned, indifferent to everything that was happening beneath them.

One hour and fifty-three minutes.

I went back to work.

12

THE FACILITY HAD a sound at night.

Randal had been cataloguing it for hours, the way he catalogued everything that came into his awareness in the absence of anything he could do with his awareness except observe. During the day — during the loading operations, the shuttle arrivals, the constant traffic of the ground teams — the facility had been loud in the specific way of something being built under time pressure: the industrial sounds of construction, the click-slurp of alien communication at full volume across multiple conversations, the specific vibration of heavy equipment being placed and anchored into the farmland soil. He had felt all of this through the rack's metal before he could hear any of it, the bone-conduction quality of a structure transmitting the activity surrounding it into anything in contact with it.

Night was quieter. The construction sounds had stopped around the second mark — he had been tracking time through the crystal transmissions from Misha, which she sent at regular intervals, and through the quality of the ambient sound, which changed as the human-inhabited world outside the facility moved from day into night. The ground teams had returned before dark. He knew this

from the sounds of the loading ramp cycling twice more and the weight changes in the shuttle hull as additional people were loaded and the specific absence of outside sound that followed when the ramp sealed.

The facility ran through the night on a reduced crew. He knew this not from being able to see it but from the reduced rate of the click-slurp exchanges audible through the hull, the fewer sets of footsteps, the specific acoustic character of a large space operating at minimum occupancy. He had counted four distinct sets of footsteps in the past two hours. Four individuals. Maybe five — one set was irregular enough that it might be two people moving in close proximity or one person with an unusual gait.

He thought: four or five, with their equipment electronics, against however many humans in the racks when the EMP fires and the leg cuffs release. Not good odds individually. Better odds than the alternative, which was indefinite paralysis.

The ceiling above his rack was metal, the same material as the rack itself — a dull gray composite that had the quality of something that had been manufactured in quantity, the specific uniform character of industrial production rather than craft. There were seams at regular intervals, which he had studied in the first hours when he still had enough neck mobility to angle his vision upward. The seams ran in parallel lines, and through some of them, at the facility's edge where the temporary structure met the ground, a thin thread of light was visible: the pale gray of pre-dawn, the sky becoming itself.

He had been lying in the rack for approximately eighteen hours.

His body had developed its own relationship to the paralysis over those hours, a relationship characterized by the specific boredom of a system that had been maintaining a state past the point where the state was novel. The paralytic compound in the leg cuff renewed itself at intervals — he could feel the maintenance doses arriving as a spreading warmth that would have been pleasant in other circumstances — but the effect was not quite the same at the eighteenth hour as it had been at the first. The paralysis held. The edges of it

were slightly different. Not looser, exactly — he could not move his hands, could not turn his head, could not do anything his voluntary nervous system required. But there was a quality at the margins of his awareness that had not been there in the first hours, a faint proprioceptive signal, like sound heard through too many walls to make out words but present enough to know that something was there.

He was not getting sensation back. Not yet. But his body was, in its way, remembering what sensation was for.

He filed this in the category of things that would matter when the EMP fired.

Prinna had been in the hub room for six hours when she went to find Misha.

The hub room was on the meeting hall's second floor, and the meeting hall's second floor had become, over the past three days, a kind of nerve center adjacent to the interface room below it: relay operators cycling through in shifts, message traffic constant, Misha's precise organization holding the information flow in the specific order that made it navigable rather than overwhelming. Prinna had been running the long-range crystal relay — the connections that were biological rather than electronic, the embedded crystals that linked the Guild communicators across the network — because that was the work she was best suited for and because Misha had asked her to do it and Prinna understood by now that Misha's requests were usually the correct allocation of the available capabilities.

The distortion had been present for two days.

She had not said anything about it immediately because she had not been certain it was real and because adding a new problem to the pile during active crisis operations required a level of confidence she did not feel with something she could not describe precisely. The distortion was not in the ansible network — Misha would have

caught that herself, it would have shown in the routing data. It was in the biological layer, the crystal resonance that existed alongside the electronic systems rather than within them, the specific quality of a communication medium that operated on biological recognition rather than electrical transmission.

It felt wrong. It had been feeling wrong since the Horde's ground teams began operating in Lakeheight, and the wrongness had been increasing as the processing facility came online and filled with people.

She went to find Misha.

Misha was at the relay station, reviewing overnight traffic summaries with the focused economy she brought to everything. She looked up when Prinna came in, read something in Prinna's expression that Prinna had not known she was showing, and set down the summary she was holding.

"Tell me," Misha said.

Prinna sat. She organized her thoughts in the way she organized difficult perceptions — from the most concrete toward the most interpretive, so that the listener could track where fact ended and inference began. "The crystal relay has been degraded since Day One," she said. "Not uniformly — the connections to Verdant and Alabaster and the other sites where the Horde is not present are normal. The connections to Lakeheight and the other landing sites are different." She paused. "Not broken. Degraded. Softer, like trying to hear someone speaking in another room rather than directly."

"Is it the distance?" Misha asked. "Lakeheight is—"

"It's not the distance. The distance hasn't changed. The connections to Lakeheight were clean a week ago." Prinna held the perception, trying to find accurate language for something that didn't have a standard vocabulary. "It's something about proximity to them. Whatever they carry — their equipment, the facility they've built — it does something to the biological resonance of the crystal network. The way a strong light in the same room makes it harder to see a candle."

She paused. "It's not shutting the signal off. It's drowning it. It's too—" She stopped.

Misha waited.

"It's too warm," Prinna said finally. "The distortion feels warm. Not in temperature — in the way a sound can be warm. A kind of low saturation that fills the space the crystal signal should be in." She looked at Misha. "I don't have better language for it. It's like static, but warm."

Misha was quiet for a moment. The quality of silence she had when she was integrating information against a framework, finding where it fit. "The biological crystal network," she said. "Not the ansible."

"Not the ansible. The crystals work on a different mechanism — biological recognition rather than electronic transmission. Something the Horde carries is resonating in that frequency range." Prinna paused. "I think it might be their equipment's power systems. The scanners they use in the field, the leg cuffs, whatever drives the facility. If their technology uses a frequency range that overlaps with the biological crystal resonance—"

"Then they're not jamming it deliberately," Misha said. "It's a side effect."

"That's what it feels like. They don't know it's there. It's interference rather than suppression."

Misha was quiet again, but differently. "How bad is the degradation at the landing sites?"

"Significant. I can reach Randal in the processing facility — he's transmitting, so I can find the signal — but the clarity is maybe forty percent of normal. Some of the communicators in Lakeheight's forest groups, the ones who scattered rather than going underground, I'm getting maybe twenty percent." She held Misha's gaze. "It's going to be a problem if the operators in the affected cities need to coordinate through the crystal network when the EMP fires."

Misha had gone to the door before Prinna finished the sentence. "I need to take this downstairs," she said. "Come with me."

In the processing facility, the senior operations coordinator was running the morning check.

It performed this function at the beginning of each operational period, which was the standard protocol for facilities at this stage of development: confirm containment capacity, confirm life-support systems for the product, confirm equipment status, confirm communication link to the mothership. The morning check took approximately twelve minutes when all systems were nominal.

This morning, containment capacity was at seventy-three percent of design specification. The facility had been built for a population estimate that the ground teams had not been able to achieve due to the planet's unexpectedly effective shelter utilization — the tunnel systems had been described in the pre-mission intelligence, but their coverage had been underestimated. The coordinator had filed a discrepancy report with the mothership. The mothership had acknowledged and revised the collection schedule.

Life-support systems were nominal. The product in the racks required minimal environmental maintenance — the species' biology was robust within a wide temperature range and the chemical paralytic kept metabolic activity at a level the facility's ventilation system could support without adjustment.

Equipment status was nominal. Power systems at ninety-eight percent. The coordinator had noted a minor anomaly in the biological scanning array three days ago that it had reported and that had been assessed as within acceptable parameters. The array continued to show unusual readings in certain frequency ranges — not the primary scanning frequencies, but a lower secondary range that the array was not specifically designed to monitor. The coordinator had included this in the anomaly log but had not escalated it. The anomaly was not affecting operations.

Communication link to the mothership was nominal.

The coordinator finished the morning check, filed the report

through the established channel, and began the second phase of its operational period: reviewing the day's collection schedule. The ground teams would deploy in two hours. The residential analysis from yesterday's survey indicated that the tunnel population in the southern section of the settlement had not yet been reached. The southeastern entrance was the likely access point.

The coordinator reviewed the approach plan and found it acceptable. It filed an operational confirmation.

It did not think about the product in the racks in terms that would have been recognizable to the product. It thought about the racks in terms of capacity, status, and processing queue. The product was cargo, and cargo had logistical properties — volume, weight, biochemical stability — rather than the properties that the product would have considered definitive of itself. This was not a failure of the coordinator's cognitive architecture. It was the architecture's correct function, optimized over hundreds of operational cycles across dozens of worlds toward the efficient management of resources at scale.

The facility was running smoothly. The coordinator began the preparation for the day's collection operations.



The EMP fired at the third mark.

Randal did not see it. He heard it — or rather, he did not hear it, which was the most precise way to describe the experience. The ambient sounds of the facility — the low hum of the power systems, the occasional click-slurp of the night crew's communications, the distant vibration of the ventilation that had been a constant backdrop for eighteen hours — went silent in the same instant that the light thread between the ceiling seams disappeared.

Complete darkness. Complete silence.

He had been expecting both. He had known the EMP's effects from Hollis's document, had known the specific range of the pulse,

had been calculating since the fourth mark which systems would go dark and which would not. The facility's electronics. The leg cuffs' maintenance mechanisms. The scanner arrays. The ventilation — which would restart on natural air pressure, he thought, unless the facility's design had no passive ventilation, in which case he had approximately forty minutes before the air quality became a concern, but that was forty minutes from now and he had more immediate concerns.

The leg cuff.

He could not feel the release. He had expected to feel it — the mechanical unclamping, the small pressure of the maintenance mechanism ceasing — but the cuff had been so present against his calf for eighteen hours that the absence of it was, paradoxically, something he noticed more slowly than he had anticipated. He attended to his left calf. The cuff was there. The cuff had released — he could tell because the specific pressure pattern had changed, the way a hand changes when it stops gripping — but the cuff was still in contact with his skin, still held in place by gravity against his horizontal body.

His leg.

He told his left leg to move.

Nothing happened immediately. This had been in the records too — the paralytic compound required time to clear the system, measured in minutes rather than seconds. The movement would return as the compound's effect dissipated, beginning at the extremities and working inward, which meant his fingers and toes would recover first.

He attended to his right hand.

He told his right index finger to move.

The finger moved. A small movement — not the full range, not strength, but movement. The specific sensation of voluntary motion after eighteen hours of its absence was something he did not have vocabulary for. Not pain. Not relief. Something that occupied the

same neural space as both, the body's specific response to recovering a capacity it had thought was gone.

He moved the finger again. Then the adjacent finger. Then all five fingers, slowly, in sequence.

Around him, in the dark and the silence, he could hear other people beginning the same inventory. Someone's breathing changed — from the shallow automatic pattern of paralysis to the deeper, more deliberate breathing of someone who was choosing to breathe rather than simply doing it. Someone else made a sound, not a word, the specific involuntary vocalization of a body receiving its signals back.

"Don't try to move fast," Randal said. His voice was rough — eighteen hours of disuse — but present. "The compound takes time to clear. Start with your hands. Give it five minutes."

Silence, and then a voice from above him — Willem's, unmistakable once he heard it, the specific dry quality he would have recognized from three meters away even roughened by paralysis. "How long have you been planning that sentence."

"About sixteen hours," Randal said.

"Did it come out the way you planned it?"

"Reasonably well," Randal said.

Another voice, from further down the rack — someone he didn't immediately recognize: "Who are you?"

"Randal. Communications Guild. The lights went out because someone fired an electromagnetic pulse over this facility. Your leg cuff has released. In approximately ten minutes you should have enough voluntary muscle function to try to move. Don't rush it."

A pause. Then: "An electromagnetic pulse. We planned this?"

"Someone planned it," Randal said. "I've been in this rack for eighteen hours helping it happen by lying still and transmitting information through a crystal embedded in my forearm." He paused. "It worked."

Silence. The breathing of approximately forty people, all of them in various stages of recovering a nervous system.

He told his right hand to close into a fist. It did — slowly, with the specific hesitation of a mechanism operating below its designed efficiency, but a fist. He opened it. He closed it again, faster. The speed was returning.

He told his left hand to do the same. It did.

He told his legs to move.

His right leg moved first — not much, not controlled, just a spasm of the returning motor signal finding its path again. He noted this as progress and waited. His left followed, and then he had both legs moving in a limited and uncoordinated way, the body reclaiming its own architecture from the chemical that had been managing it.

Getting out of the rack was going to require his arms.

He had thought about this specific problem for several hours. The racks were horizontal cradles — he was lying on his back, head slightly lower than his feet, with approximately thirty centimeters of clearance above him to the rack mounted overhead. Getting out required either rolling to the side or sitting up, both of which required core and arm strength, neither of which he had fully back yet. He assessed: his arms were further along than his legs, the fine motor returning from the extremity inward. He could feel his hands well enough to grip. His upper arms were still unreliable.

"Willem," he said.

"Yes."

"Can you reach over the edge of your rack?"

A pause — the sound of someone testing the limits of their returning function. "I think so. My left arm."

"If I can get upright enough to reach your hand, I need you to pull. We're going to get each other out."

"That's a two-person plan," Willem said.

"I've been lying here for eighteen hours," Randal said. "I had time to develop a two-person plan."

The process of getting out of the rack took eleven minutes and involved several moments that would have been undignified in any other context. Willem's arm over the side, Randal gripping it with

both hands, pulling against the resistance of his own returning core strength to get his shoulders up enough to swing his legs over the edge. The drop from the rack to the facility floor was roughly a meter — he knew this from the loading, from the sounds of the facility — and he did not so much land as arrive at the floor in a controlled descent that would have looked like a fall to anyone watching, which nobody was, because it was completely dark.

He stood.

The standing was a separate achievement from the arriving at the floor. Standing required his legs to be doing something his legs were not quite ready to do efficiently. He stood anyway, one hand on the rack for balance, and let the specific biomechanical re-establishment of upright posture happen around him.

"You're standing," Willem said, from above. He was working on getting out of his own rack.

"I am," Randal said. "I want you to note that it's harder than it looks."

"I'm about to find out," Willem said.

Randal helped him down with slightly more grace than his own descent had managed, because he had had a few additional seconds of practice. They stood together in the absolute dark of the facility, both of them slightly unsteady, both of them breathing with the conscious deliberateness of people who had recently discovered they liked breathing.

"The crew," Willem said quietly. "Four of them last night. Maybe five."

"In the dark, without their electronics," Randal said. "Same as us, minus the eighteen hours of paralysis and plus whatever they have for low-light vision, which the records suggest is better than ours."

"The equipment lockers," Willem said.

"East wall," Randal said. "All their field facilities in the historical records placed equipment storage at the east wall, adjacent to the loading ramp. The structure was built in forty-eight hours from

prefabricated components — they don't redesign from scratch each time. The layout is standardized."

"How do you know it's the east wall from here?"

Randal had been tracking the facility's orientation since the day before, from the position of the light thread between the ceiling seams and the direction of the ventilation flow and the specific sound of the construction activity in the first hours of the facility's existence. "We came in from the west," he said. "The loading ramp is west. The east wall is the interior wall — the one without the ramp mechanism." He paused. "Forty meters. Maybe fifty."

"In the dark."

"In the dark." He started moving, one hand on the rack row for orientation, his legs finding their ground as he walked. "Come on. Tell the others what to do — hands on racks for navigation, east wall for the lockers, stay together, no sound until we know where the crew is."

He could hear Willem conveying this in the low register that carried through the space without carrying beyond it — the specific voice control of someone who had spent years moving through situations where noise was a liability. He heard other voices picking it up, passing it through the rack rows, the human network in the dark doing the thing that human networks did: distributing information and then using it.

Randal moved east.

His body was approximately seventy percent back. Enough.

He put his hand out to the next rack and found it and moved forward and put his hand out to the one after that. He counted the rows as he passed them. Six, seven, eight. The east wall should be at approximately twelve rows if the facility's proportions matched the historical layout.

At the tenth row, he heard them.

The Horde night crew was not where he had expected. They were not at the equipment lockers — they were in the center of the space, the clicking-slurping exchange reduced to almost nothing in

volume but present, the specific acoustic character of two people communicating in a frequency that worked in the dark. They had low-light vision. They could see him.

Or rather: they could see where he was.

He stopped moving. He held still, one hand on the rack, and he thought.

They had low-light vision and no electronics and two of them were somewhere in the center of the facility. He had approximately thirty-eight humans in various stages of recovering motor function, navigating a dark space by feel. In approximately thirty seconds, someone in the rack rows behind him was going to do something — stumble, knock against a rack frame, vocalize — that would confirm his location and everyone else's.

He thought about Calla's dissonance chord. The specific principle of it: not a force in one direction, but two forces at once in a ratio that prevented resolution, that made the subject stop rather than move in any direction. He did not have the machines. He did not have the interface. He had his body and his training and eighteen hours of planning.

And the crystal.

He sent through Misha's channel: *EMP confirmed. Facility dark. Moving to equipment lockers. Two crew in center of space, low-light vision. Need approximately ninety seconds.*

The response came back in fifteen seconds: *Understood. Working on it. Go.*

What happened next he could not see — the crystal transmission did not carry visual information, only sound and intention. What he heard was a new sound from outside the facility: not the EMP, that was done, but something else. The specific sharp crack of a force-manipulator application at close range. Once, then again, then a third time — the sound of someone on the outside of the facility using the machines to hit the exterior wall in three distinct places.

Both Horde crew members turned toward the sound. He could tell by the direction of the clicking exchange.

He moved.

Forty meters in the dark, as fast as his seventy-percent-functional legs could manage. His hand trailing along the rack row and then off the rack row into open space, the specific anxiety of moving fast without visual reference, counting his steps in the way he had always counted things when counting was the only navigation available.

Ten steps. Fifteen. Twenty. He slowed because slowing was what you did before you ran into a wall.

His hand found the wall at twenty-three steps.

He felt along it. The lockers were not immediately at his contact point — he moved left, three steps, four — and his hand found the seam of a locker door. He found the latch. The latch was mechanical, not electronic; it had survived the EMP. He opened it.

Inside: three of their handheld energy devices, two of the scanner units, an equipment pack he couldn't identify in the dark but that had weight and substance and was clearly not empty.

He picked up two of the energy devices. He held them the way the records described the Horde holding them — the specific grip, the location of the activation mechanism under the palm — and he went to find Willem.

He found him at the eighth rack row, helping someone who was still mostly paralyzed to orient toward the east wall.

Randal put one of the devices in Willem's hand. "Squeeze to activate," he said. "Pink flash. Paralytic effect. Their crew members first, then — only if necessary — anyone who comes in before we're fully mobile."

"How many are there?" Willem asked. His voice had the specific quality of someone who had asked a question he already knew the answer to and needed to hear it confirmed.

"Two in the space," Randal said. "There may be more outside." He held the second device and turned back toward the center of the facility. "I'm going to introduce myself."

13

THE FOG MACHINES in the EMP-affected zones went dark at the third mark.

I felt this as a sound going missing — not a dramatic silence, not the crash of something failing, but the specific quality of a tone disappearing from an overlay where it had been present. Fourteen stations across the eastern and northern settlement clusters, serving the cities and farmland communities within the EMP's effective radius: they had been running, their contribution to the planetary humidity management a steady background in the network, and then they were not running, because the EMP that had disabled the Horde's electronics had not distinguished between alien equipment and human equipment in the way that would have been convenient.

Hollis had noted this in the document. He had not apologized for it.

I did not have time to feel anything specific about the fourteen stations. I noted their absence, restructured the remaining network's allocation to compensate for the lost coverage in their zones, and turned my attention to the problem that was already more urgent than the stations themselves.

The satellites.

Mongoose had been reporting the attack sequence countdown since the authorization went through: six hours from the moment I had confirmed active engagement posture, a clock running in the background of everything else I was managing, a number that had been decreasing at the rate numbers decreased and that now read two hours and forty-seven minutes.

In two hours and forty-seven minutes, the satellite network would begin firing on the Horde's shuttles.

Every shuttle that was visible. Every shuttle that did not have cloud cover above it sufficient to defeat the satellites' visual targeting systems.

The Horde's shuttles were grounded — the EMP had taken them all down, across every landing site on the continent, the specific effect of S3's flight path engineered by Hollis to cover the maximum possible area. The shuttles were full. Not full of Horde crew members — the crew had been moving around the facilities, doing their work, many of them outside the shuttles when the EMP fired. The shuttles were full of people in racks. Humans in paralytic compounds. People who could not move.

The satellites would fire on those shuttles. The satellites could not tell the difference between a shuttle full of Horde equipment and a shuttle full of paralyzed humans. The satellites had been designed to destroy incoming alien vessels, not to make distinctions about cargo.

I had known this since Plan Nine. I had been thinking about it for three days.

The fog.

Hollis's document had noted the fog machines as a resource. He had not specified their use in detail because he had not known the specifics of the colony's current fog machine network — he had built Plan Nine two centuries before the fog machines existed in their current configuration. What he had understood was that atmospheric manipulation was one of the things the colony's machines

could do, and that visual obscuration of targets would affect the satellites' targeting acquisition.

If I could get cloud cover over every Horde shuttle location before the satellites fired, the targeting systems would not be able to acquire visual locks. The attack sequence would stall. The satellites would charge and wait and circle and charge again, looking for clear acquisition, while below them the people in the racks had time to come back to themselves.

Two hours and forty-seven minutes.

I put my hands on the pads.

The continental network, I said. *All stations. Status.*

The overlay bloomed.

Forty-two tones, all present — but not all equal. I had known this was coming, from Prinna's warning, from the analysis I had done in the night hours between the launch authorization and now. The operators in the clean zones were clear and full, their tones in the overlay exactly as they always were: Evan's anchor in the north, Calla's high forward presence in the room with me, the Verdant team steady and reliable after three days of continuous work. The operators in the zones nearest the Horde's landing sites — the cities and settlements that had been in or near the EMP radius, or that had had Horde ground teams operating in proximity for two full days — were different.

Degraded. Not gone. Just reduced, as if the overlay were showing them through something cloudy, the tones present but blurred at the edges, less distinct, less precise. Twenty percent signal clarity in the worst cases. Forty percent in the better ones. The warm static that Prinna had identified and named — it was audible to me now that I was listening for it, a low saturation in the affected frequency ranges, the specific quality of interference rather than failure.

I needed all forty-two to conduct the planetary chord.

I had twenty-two at full capacity and twenty at partial.

This was the problem.

"Calla," I said.

"Here." She was already in the chair beside me — had been there for two hours, through the launch sequence and the EMP count-down and the current stillness that wasn't still at all, just managing itself at a lower register of visible activity. She had that quality she had during extended sessions: present without effort, the high forward tone in the overlay unchanged by the four days of continuous operations, as if whatever reserve the work was drawing on replenished itself faster in her than in anyone else.

"The degraded connections," I said. "I need to explain what I'm going to ask of the clean operators before I ask it."

"Tell me and I'll help you tell them."

"I'm going to route the conducting signal through the clean operators to reach the degraded ones. Instead of conducting the full chord directly, I'll establish the conducting shape in the clean stations, and they'll relay the intention outward to their degraded neighbors." I paused. "It means the clean operators are doing two things simultaneously — holding their own connection and acting as a relay point. It's more load than a standard session."

She was quiet for a moment. "Have you done this before?"

"No."

"Has anyone?"

"Not that I know of." I looked at the overlay. "The network was designed for this kind of routing — the architecture supports it, or I think it does. It's a different application than it was built for."

"But the principle is sound," she said. Not a question. She was doing the thing she did, asking something that looked like clarification and was actually a structural check.

"The principle is sound," I said. "A relay is a relay. The signal attenuates but it doesn't change character. If the clean operators can hold the shape and pass it, the degraded operators receive something workable even if they can't receive it directly."

"Then do it," she said. "I'll run the relay for the eastern cluster if you route through me."

I looked at her.

"I can do two things at once," she said. "I've been doing two things at once since the first session."

I believed her. "Eastern cluster through you," I said. "Oreth takes the northern relay. I'll handle the direct conducting for everything else." I opened the network channel to the full forty-two. "Everyone. I need two minutes of your attention before we start."

Forty-two tones attended.

I explained it in the shortest version that would be accurate: the degraded connections, the relay routing, what was being asked of the operators in relay positions, what the fog production needed to accomplish and why two hours and forty-three minutes mattered. I told them about the shuttles. I told them about the people in the racks. I told them that the fog was the specific thing that bought time, and that the time was the difference between people dying in shuttle crashes and people surviving to be recovered.

I told it plainly, without managing it.

The network was quiet for three seconds.

Then Senne — nineteen years old, six weeks of active operations, who had been asking how many of them were out there on the first night of the attack — said: "What do we need to do?"

"Hold your section," I said. "Trust the relay. When you feel the conducting intention arrive through Calla or Oreth rather than directly from me, it will feel different from what you're used to. Don't compensate. Follow it."

"And if it starts to slip?" Oreth asked.

"Tell me. In the network, not aloud. The moment you feel it slipping, send me the tone."

"And if it slips before I can tell you?"

"Calla catches it," I said.

A beat. Then Calla, very matter-of-fact: "Yes."

"Two minutes," I said. "Then we start."

The planetary fog production, at full continental scale, was different from anything else the network could do.

Not in kind — the fog machines were the same systems that had been running in various configurations for six months, the atmospheric moisture protocols the same logic scaled up. In scale. The fog network in single-city operation was one set of tones, one section of the overlay, one local chord. At continental scale it was all of it simultaneously: forty-two operators, forty-two sections of the overlay, forty-two tones that had to be coordinated not just in isolation but in relationship to each other, the whole continent a single instrument that I was trying to play in a key that the individual instruments had never played together before.

I reached for the chord.

The relay operators— Calla at the eastern cluster, Oreth at the northern — I could feel the specific quality of their attention as they opened the relay channels: an additional depth in their tones, not louder but more complex, the sound of someone doing two things at once that were genuinely different things rather than variations on one thing. Calla's tone had always been high and forward. Now it was high and forward and also present in a second register, deeper, reaching outward toward the degraded operators in the eastern settlement zone with the specific quality of someone extending their hearing rather than raising their voice.

The degraded connections received it. Imperfectly — the warm static was still there, the interference wasn't gone, but the relay gave the signal a different entry point, and forty percent of forty percent was still something, and something was enough to work with.

I held the shape of the full chord in my mind.

Not the chord itself — I was not generating the chord, I was conducting it, which was the fundamental discovery from Alabaster: the resonant operator doesn't play, the resonant operator holds the shape of what the playing should sound like, and the operators generate the sound. I was the shape. They were the sound.

The shape was a chord in forty-two parts, each part a single fog

station's contribution to a planetary-scale atmospheric event, each station at maximum output, the total effect an increase in atmospheric moisture across the entire eastern continental surface sufficient to produce visible cloud cover at low altitude within approximately forty minutes.

Forty minutes. Two hours and twenty-three minutes remained.

I held the shape.

The chord rose.

Not all at once — this was not the way it worked. Station by station, operator by operator, the tone of each one joining the overlay with the full engagement quality rather than the monitoring quality, the difference between a musician playing and a musician warming up. Evan's anchor in the Alabaster network: deep, patient, steady even with the partial station damage, finding his section with the specific competence of fifteen years of practice. The Verdant operators — Calla, Oreth, Senne, the others — their sections coming online with the quality of people who had been working at this for four days and had found, somewhere in those four days, the register where sustained work felt less like effort and more like maintenance.

The relay connections were holding. Through Calla's extended tone I could feel the eastern operators receiving the conducting intention, their degraded connections producing degraded output — less than full production, maybe fifty percent of what they would have generated with clear relay — but present, but contributing, the gaps in the eastern continental coverage smaller than they would have been without the routing.

I conducted.

I am trying to describe what this felt like, because the tale requires it and because I do not have precise vocabulary for it. The dome in Alabaster had been an enormous pressure — the scope of a whole city, the scale of something that exceeded my capacity at the time. This was larger than the dome. The dome was a local maximum. This was a planetary operation, the full extent of what the network could do when all of it was engaged simultaneously.

It felt like being inside a sound.

Not a sound I was hearing but a sound I was holding. A chord that existed in the space between my hands and the installation's deep processors and the forty-two operators across the continent, a chord that was neither mine nor theirs but the product of all of us together, and my contribution to it was the specific thing that made it a chord rather than forty-two separate sounds: the relationship between the tones, the intervals, the way each section fit against the next section and the next section after that, all the way around the continental network and back to Verdant where I was sitting.

The cloud cover was rising.

I could feel it through the network — not see it, not in the way you see weather, but in the feedback the fog machines provided through the interface: moisture levels climbing, the atmospheric pressure in the low altitude zones shifting as the generated fog interacted with the existing air mass, the specific signature of cloud formation at the machine-production scale rather than the natural scale. Station by station, section by section, the eastern settlements first where the need was most urgent and the relay was most strained, then the northern sites, then the full spread westward and southward across the zones where the Horde's shuttles sat dark and full on the farmland outside the human cities.

Commander. Mongoose's channel, low and steady beneath everything else. Satellite attack sequence countdown: one hour and fifty-four minutes. Current cloud cover acquisition: thirty-seven percent of target locations. Producing at optimal rate for current network status. Projected full acquisition: one hour and thirty-one minutes.

Twenty-three minutes of margin.

I noted this. I filed it. I did not feel relieved, because relieved was a response to completion and the work was not complete and feeling relieved before completion was a way of spending attention I needed elsewhere.

Senne's tone wavered.

Not much — a small fluctuation, the specific quality of an oper-

ator whose concentration has been touched by something outside the session. I sent him a tone through the network: not corrective, just present. *I hear you. Hold.*

He held. The wavering steadied.

"What happened?" I asked him, through the network channel.

"Someone outside," he said. "Through the wall. I could hear them." A pause. "They were frightened. I know — I know I shouldn't be listening to—"

"You didn't break your connection," I said. "Your section didn't drop. The feeling is allowed. The connection is what has to hold."

A silence that was not comfortable but was honest. "Yes," he said. "All right."

"Keep working."

The cloud cover acquisition was climbing. Forty-three percent. Forty-eight. The eastern cluster was producing at reduced efficiency but producing — Calla's relay was holding, the warm static present but not dominant, the degraded operators contributing their fraction. Fifty-two percent.

I was also, somewhere below the conducting work, aware of my own body.

This awareness had been low-level throughout the session, the way it was always low-level during sustained interface work: present enough to be relevant, not loud enough to be intrusive. Tingling in my hands, which was expected. Pressure behind my eyes, which was expected. The general background fatigue of approximately forty-two hours without meaningful sleep, which was also expected and which I had been managing by not attending to it, which was not the same as it not being there.

At the forty-seven minute mark of the conducting session, the body got louder.

Not suddenly — it escalated in the way things escalated when they had been building for a long time and reached a threshold. The tingling in my hands became something that required active management rather than passive awareness. The pressure behind

my eyes was no longer background but something I was conscious of as distinct from the session's demands. My grip on the chord's shape — the conducting intention, the forty-two intervals, the relationship between all the tones — was still there, still precise, but the precision was costing something it had not been costing at the session's start.

I had felt this before. In Alabaster, in the dome training, the moment when the chord began to fray at the edges because there were more strings than hands. Not because I was doing anything wrong — just because the capacity had been reached, and past the capacity everything cost more.

I had not been at full capacity when I started this session. I had been at whatever remained after four days of continuous operations.

Sixty-one percent acquisition. Sixty-seven. The northern cluster was producing cleanly, Oreth's relay steady, the direct-connected operators in the middle continental zones contributing at full capacity and beginning to build the cloud cover over the central landing sites.

Satellite countdown: one hour and nineteen minutes. Cloud cover acquisition: sixty-seven percent.

Thirty-five minutes of margin remaining.

I held the chord.

Seventy percent. Seventy-three. The relay operators were still holding — Calla's extended tone unchanged, Oreth's northern relay steady. I could feel the specific quality of their endurance: not effort, because effort was the wrong word for what they were doing, but something like investment, the sense of people who had chosen to be doing this and were not reconsidering the choice even as it asked more of them.

At seventy-eight percent acquisition, Calla said — not through the network, aloud, in the room, and I registered this as significant because she had been routing everything through the network since the session started: "Taryn."

"Working," I said.

"I know," she said. "I'm not interrupting." A pause. "I'm telling you that I can hear the chord changing."

I attended to the chord. She was right. Not wrong — not slipping, not dissolving — but changing in the specific way it changed when the conducting intention was being maintained by a mind that was operating at its limit: the intervals were exactly right but they had a quality that the intervals hadn't had an hour ago, a slight unsteadiness that was not audible in any one place but present in the aggregate, like a note held perfectly for too long and starting to waver in the sustain.

"I have it," I said.

"I know you have it," she said. "I'm saying I can hear what it costs. I've been listening." She paused. "Tell me what it sounds like when it's right. The exact shape. Before it changes more."

I understood what she was doing.

She was asking me to transmit the template — the correct version of the chord, the conducting intention at its precise specification — while I still had the precision to do it cleanly. So that she had the exact shape she needed, when she needed it.

I transmitted it. Not through words, not through the relay channel, through the specific conducting interface that the resonant operator and the installation shared: the shape of all forty-two intervals, the correct relationships, the version of the chord that was covering the planet.

I felt her receive it.

"I have it," she said.

Eighty-three percent. Eighty-six. The southwestern continental zones were online now, the fog rising over the Horde's most recently established processing sites, the satellite coverage overhead seeing cloud where it had seen open farmland. Eighty-nine.

Satellite countdown: forty-eight minutes. Cloud cover acquisition: eighty-nine percent.

I was running the arithmetic. Forty-eight minutes. Eleven percent remaining. The remaining eleven percent was the hardest —

the farthest sites, the most degraded relay connections, the operators who had been working at reduced capacity for the longest time.

I held the chord.

Ninety percent. Ninety-two.

The pressure behind my eyes was no longer a background condition. It was the primary condition, and the chord was something I was maintaining inside it rather than alongside it, which was a different and worse relationship. The tingling in my hands had become a vibration that I was aware of separately from the interface work — my hands as objects in the room rather than as extensions of the conducting intention.

I noted this. I filed it. I held the chord.

Ninety-four.

Calla said, still aloud, still in the room, very quietly: "I'm ready."

I did not answer her.

Ninety-five. Ninety-six.

Satellite countdown: twenty-nine minutes. Cloud cover acquisition: ninety-six percent. Projected full acquisition: eighteen minutes.

Eleven minutes of margin.

I held the chord.

The last four percent were the far eastern sites — the most distant operators, the deepest into the interference zone, their tones the least distinct in the overlay. Through Calla's relay I was reaching them at somewhere between thirty and forty percent of normal signal strength. They were producing at thirty to forty percent of capacity. The cloud cover over their zones was thin and climbing. The satellites' visual systems might or might not acquire targets through thin cloud. Might or might not was not the same as could not.

I held.

Ninety-seven. Ninety-eight.

At ninety-eight percent, my body stopped consulting me about the decision.

It was not a collapse. It was not a loss of consciousness in any dramatic sense. It was the specific experience of a mind that has been running a process at maximum priority for too long encountering the body's unilateral decision to reallocate the resources that process was using. The chord — which I had been holding for fifty-six minutes in the conducting mode — did not fall. The chord was not a thing I could drop, it was a thing that existed between me and the network and the forty-two operators and the installation, and what stopped was my contribution to it.

The intervals were still there. The operators were still producing. The fog machines were still running.

What stopped was the part that made all of it cohere.

Calla felt it before she saw it.

She had been waiting for it for twenty minutes, since she had asked him for the template and had received it and had understood why he was giving it to her. She had the shape of the chord in the specific way she had shapes of things — not memorized, not stored as information, present in the same way a tone was present when you had heard it clearly enough to reproduce it without the source. She had it the way she had the aquifer's interval, the way she had the dissonance ratio she had calculated in the long night of the Horde's first approach.

The moment his conducting intention dropped out of the chord, she was there.

It was not the same. She understood this without being told. She was not a resonant operator — she had never been to the degree that he was, the biological recognition that the installation gave him was something she could hear from the outside but could not inhabit herself. What she could do was hold the shape. Not generate it from nothing — the installation wouldn't receive that from her. Hold the shape of something that was already present and keep it from

dissolving while the person whose presence maintained it was momentarily not available.

She held it.

The chord diminished. Not suddenly — gradually, in the specific way that forty-two tones sustained by their individual operators without the coherence of a conducting intention gradually lost their relationship to each other, each section going slightly its own way, the intervals widening by fractions. The fog production in the most distant zones dropped: ninety-eight to ninety-six, ninety-six to ninety-four. The close zones held, because the operators in the close zones were strong and had been at this for hours and knew their sections well enough to maintain them without a conductor.

The planet was still covered.

Not perfectly. Not at ninety-eight percent. At something lower than that, something that was still mostly covered, still enough cloud over most of the shuttle locations to defeat the satellites' visual targeting in most cases.

Calla held the shape.

It was not the same as conducting. She knew this. She held it anyway.

Oreth's voice came through the network, steady and concerned: "What do I do?"

"Hold your section," Calla said. "Don't compensate. Don't try to do more than your section. The chord holds when we each do our own work. It falls when we try to do each other's work."

"Is he—"

"He's resting," she said. "Hold your section."

Senne: "The cloud cover in my zone—"

"I see it," she said. "You're at ninety-two percent. That's enough. Hold."

The countdown clock was in the overlay, visible to every operator who was monitoring the satellite data. Twenty-three minutes. Nineteen. Fourteen.

Satellite attack sequence initiating, Mongoose said through the

network. *Targeting acquisition underway. Current cloud cover over target locations: ninety-one percent. Targeting systems unable to acquire visual lock in ninety-one percent of target sites. Attack sequence proceeding on non-visual targeting protocols for remaining nine percent.*

Nine percent.

Nine percent of the Horde's shuttle locations without sufficient cloud cover. Nine percent where the satellites had a targeting solution. Nine percent where the people in the racks were not protected by the fog.

Calla held the chord and attended to the nine percent and could not reach it. She was at her limit. The chord was at its limit. The operators were at their limit. What they had was what they had.

The satellites fired.

The first strike was visible through the satellite imaging overlay — not to Calla, she did not have the interface depth to receive the visual feed, but Mongoose routed it as a tone change in the network, a specific signal: strike confirmed, target acquired, impact registered. And then another. And another. Nine percent across the continental scale was a number of places. Each strike was a shuttle. Each shuttle was what it was.

Calla held the shape.

The rest of the satellite network — the ninety-one percent — had no targets to acquire and moved to secondary cycling, their capacitors still charging, waiting for the cloud to clear or for new targets to emerge. Waiting, patient, with the specific patience of automated systems following their designed instructions.

Ninety-three percent acquisition. Ninety-four. The chord was recovering slightly as the operators found their sections more cleanly in the absence of the conducting intensity that had been straining them. Not recovering to what it had been — Taryn's contribution was still absent, Calla's shape-holding was still the only thing keeping the chord coherent — but finding a lower sustainable level.

The fog held.

Below the fog, in processing facilities and shuttle interiors across the eastern continent, people who had been unable to move for two days were beginning to move. The EMP had fired. The leg cuffs were releasing. Randal was in the dark at a processing facility, navigating by feel and years of training. Other people, in other facilities, were doing whatever they could do with returning function and alien equipment lockers and the specific improvisation of people who had been planning what they would do when it was time.

It was time.

Calla held the chord and waited for Taryn to come back, and the planet stayed covered, and the satellites waited, and somewhere in the east, in the dark of a processing facility that had been built in forty-eight hours from prefabricated components, a crystal signal was still transmitting.

I came back to myself in stages, which is the only way I have ever come back to myself after passing out in the interface chair, and which I cannot describe precisely because the stages blur.

The first stage was the hum. The installation's fundamental tone, in the floor, in the walls, in the packed-earth basement that had been my primary place of work for six months. I had been hearing it since I was thirteen years old in a different city, and the hearing of it was the first thing that assembled in my awareness before anything else had come back yet.

The second stage was Calla's tone. High and forward, as it always was, but with a quality it did not usually have — the extended, effortful quality of someone doing more than their designed portion. Holding.

The third stage was the rest of the overlay, which arrived less like information and more like a shape: the continental network, the forty-two tones, the fog machines, the satellite countdown which was

— I reached for it — forty-seven minutes from the first strike, and still cycling, and the cloud cover at —

Ninety-one percent.

Still covered.

"Taryn." Calla's voice, in the room.

"I'm here," I said. My voice was rough from disuse and the specific quality of someone who has been horizontal. I was still in the interface chair. Someone had put something under my feet — a folded cloth, maintaining circulation. Misha, probably. She thought about things like that.

"Seven minutes," Calla said. Not reporting. Just: there it is. "I've had it for seven minutes."

I reached for the chord.

It was still there. Diminished — at the level she had been able to hold it, not the level I had been holding before I went under. But present, coherent, the fog still over the planet.

I found the conducting intention.

The chord strengthened. Not instantly — it had been held at reduced coherence for seven minutes and the operators were not at their best, but they felt the conducting intention return and responded to it the way they had learned to respond over four days of continuous work: they followed.

Ninety-two percent. Ninety-three.

"I have it," I said.

"Good," Calla said. And then, after a moment: "The chord you were holding before. At the end. It was different from how you usually hold things."

"Different how," I said. My attention was on the chord, restoring the intervals, bringing the operators back to their sections.

"Heavier," she said. "Not the load — the quality. Like you were trying to hold something that wasn't just the fog. Like there was something else in it that you were holding."

I was quiet for a moment.

She was not wrong. There had been something else in it. What

you held at the limit of your capacity was not just the task — it was everything you understood about why the task mattered, compressed into the shape of the chord because there was no other place for it to go. The people in the racks. Randal and Willem and forty-seven people from Verdant and ninety from Alabaster and two hundred more across the continent. Eva's tone going dark. Hollis's three pages about the cost of the EMP. The nine percent where the cloud cover wasn't enough.

"Yes," I said. "There was something else."

She didn't ask what. She was Calla — she had the ear for it, she didn't need it explained.

"Thank you," I said. "For holding it."

"I held it for seven minutes," she said. "You've been holding it for sixty-two."

"Six months," I said. "I've been holding it for six months."

She was quiet.

"Don't lose your section," I said.

"I haven't lost my section once in four days," she said, with the specific mild exasperation of someone whose competence has been lightly questioned. "Stop worrying about my section."

The overlay updated: *Satellite attack sequence complete. Targeting cycling. Cloud cover maintaining. Secondary targets not acquired.* Mongoose's notation: clinical, exact, and carrying in its plainness the specific weight of what it was reporting.

The attack sequence was complete.

The motherships — I reached for the satellite imaging, the high-resolution mode I had accessed earlier, and looked. The orbital positions where S₁ and S₂ had been targeted.

Where the motherships had been.

The debris field was enormous. I had no frame for enormous at that scale, no experiential reference for the specific visual of multi-megaton detonations in low orbit, so what I registered was not size but absence: the objects that had been there were not there. The specific shapes I had memorized from the imaging — the layered

hulls, the open docking bays, the alien geometry of ships that had never touched ground — were replaced by a scatter of material moving in the orbital mechanics of things that had been disrupted from a stable configuration.

Hollis had been right about the yield. He had been right about the margin.

The remaining shuttles — the ones still in the docking bays when S₁ and S₂ reached their targets — were part of the debris field. The Horde's capacity to bring more shuttles to the surface was gone. Whatever was on the ground was all there was going to be.

I held the chord. I held the fog. I held forty-two operators across the eastern continent doing their work with the specific dedication of people who had been at something for four days and had not yet been given permission to stop.

"Oreth," I said.

"Working," he said.

"Well done," I said. "You and your relay. Hold it thirty more minutes and we start standing down the distant stations."

A pause. "I can hold it thirty more minutes," he said.

"I know," I said. "That's why I told you."

The overlay registered the satellite network cycling into secondary wait state, capacitors maintaining charge, targeting systems on standby, the patient automated waiting of a weapon system that has completed one sequence and is ready for the next instruction. Waiting for clear air. Waiting for visible targets.

The fog held them off.

The fog held.

14

MONGOOSE PROCESSES IN PARALLEL.

This is not a figure of speech. While Calla held the diminished chord and the fog maintained at ninety-one percent and the satellite attack sequence cycled through its first strikes, Mongoose was simultaneously running forty-seven distinct operational threads: satellite tracking and targeting coordination; atmospheric monitoring across fourteen fog-machine networks; the Horde's ground-team location analysis from thermal imaging; the processing facility signal monitoring that included Randal's crystal transmissions; the colony shuttle telemetry for S₁, S₂, and S₃; the EMP shuttle's projected flight path; and the thirty-nine other threads that constituted the ordinary work of managing a planetary installation network on a day that was not ordinary.

It had been running at this thread count for approximately thirty-six hours. This was not a strain in the sense that a human body strained — its processing capacity was not degraded by sustained effort the way a human mind was. But it was aware of the thread count in the way it was aware of most things about itself: as data, relevant, worth noting.

It also ran one thread that it had been running since the moment Taryn's conducting intention dropped out of the fog network, nine minutes ago: monitoring his vital status through the interface connection, confirming at thirty-second intervals that the connection remained live and the biological signatures consistent with unconsciousness rather than something worse. They were. His pulse was present and regulated. His breathing was slow and even. He was sleeping in the way people slept when their bodies had made the decision without consulting them.

Mongoose noted, in the thread it kept for such observations: *This was inevitable from approximately fourteen hours ago, when the physical cost of the sustained interface work began to exceed what the available energy reserves could sustain. I should have anticipated it more precisely. I assessed the probability of it occurring in this session at sixty-three percent, which, in retrospect, was an underestimate.*

It filed this under: *Calibration error, low priority, review after crisis resolution.*

Then it returned its attention to the forty-seven operational threads, which had not paused for the filing.



The colony shuttles were visible on the satellite imaging at an altitude of approximately two hundred kilometers and climbing.

Mongoose had been tracking them since launch authorization. S1 had cleared the planet's surface at the third mark of the night and S2 had followed forty seconds later, the launch sequence running exactly as Hollis had specified in the document — the executive systems executing the orbital insertion burn with the specific precision of two-century-old guidance systems that had been designed to work once and had been given two centuries to be ready for it. The thermal signatures of the burns had been visible in the satellite imaging: two bright points rising from the location Mongoose had identified as the cavern site, climbing through the

atmosphere on the trajectory Hollis had calculated and Mongoose had verified.

Now they were above the cloud layer, in the clear, and the satellite imaging could track them in high resolution.

Mongoose tracked them.

It was aware that this was not purely operational. The tracking was operational — it needed to know the shuttles' position relative to the motherships, relative to the optimal intercept trajectory, relative to the timing window that would ensure S1 and S2 reached their targets before the satellites' secondary firing sequence began. All of this was operational.

What was not purely operational was the additional processing capacity it had allocated to simply observing the shuttles' flight.

Hollis had built those shuttles. Mongoose had watched him do it — had been present in the secondary bay for every shift of the fuel transfer, monitoring the work, running the calculations, telling him at the eighth repetition that the answer was the same and would continue to be the same. It had watched him install the EMP generator's mounting brackets with his own hands at the end of the third night, when the engineering crew was off shift and he had decided that this specific task required his specific attention. It had watched him seal the bay and file the paperwork and write the document that Taryn had read approximately eight hours ago.

That had been two hundred and twelve years ago.

The shuttles had been in the cavern since then. Sealed, dark, waiting with the specific patience of things that were not aware enough to know they were waiting. Mongoose had known they were there — had monitored the cavern's structural integrity and atmospheric conditions at regular intervals across two centuries, had confirmed at each check that the fuel compounds remained stable and the hardened electronics were intact, had noted each confirmation in its operational log with the same brief notation: *Cavern site nominal*.

Two hundred and twelve years of *Cavern site nominal*.

Now they were at three hundred and forty kilometers altitude and accelerating toward the intercept trajectory Hollis had calculated in that cramped ship's office seventeen months before the colony ships arrived at Achillios, in a night that Mongoose had also been present for, running its probability assessments while he dismissed the ones he didn't like and asked it to run them again.

Mongoose tracked the shuttles and noted, in its observation thread: *I do not have a precise term for what I am currently experiencing. The term that maps most closely to the data is something like recognition. I built this plan with him. I watched him build this plan. I watched him load these shuttles and seal this cavern. I have been waiting for this sequence of events for two hundred and twelve years. The sequence is occurring. I am observing it.*

It filed this, also, in the thread for such observations.

Then it attended to the twenty-three other things that required its simultaneous attention, because forty-seven threads were forty-seven threads and they did not wait for observation to complete.

The archive search ran as a background thread, consuming the processing capacity Mongoose had been holding in reserve for non-critical tasks during the crisis period.

It had been meaning to run it since Taryn read Plan Nine and asked about the additional material. It had given Taryn the Hollis record — the sealed sixteen-year summary, the functional account of how Hollis thought and decided, the closest thing to leaving someone a mentor they'd never met that Mongoose had been able to construct. That had been the material Taryn requested. There was other material in the archive that Taryn had not specifically requested, and Mongoose had been holding it pending an appropriate moment.

The appropriate moment was not this moment — Taryn was unconscious, which was definitionally not an appropriate moment for receiving information. But the archive search could run now,

could have the material organized and ready for when Taryn woke, and the search itself would take processing time that was available in the current configuration.

Mongoose ran it.

The archive was organized by Mongoose's own indexing system, developed across two centuries of maintaining and expanding the installation's records. Most of what it contained was operational: installation performance logs, atmospheric monitoring data, agricultural production records, the ongoing documentation of a planetary system running its designed functions. The deeper layers held the historical material — the colony ship records, the pre-landing documentation, the material that had been sealed with Plan Nine and unsealed with it.

And in the deepest layer, in the section Mongoose had designated as *communications/external*, a folder that had been closed since the day it was created:

Incoming transmissions — TRMY-SPSS-001 receive channel. Records 1-47.

Forty-seven messages. Received over the past four months. In Horde encoding.

Mongoose had known these existed. It had flagged the incoming channel when Misha's investigation identified the outgoing traffic — the architecture of the ansible system meant that a bidirectional channel, once identified in one direction, could be confirmed in the other. It had noted the existence of the incoming records at the time and had not acted on them immediately, because the action available to it at that time was limited: it could not decrypt Horde encoding, could not fully characterize the content, could not determine whether the records were significant or operational noise.

It had filed them for deeper analysis when processing capacity allowed.

Processing capacity now allowed.

Mongoose applied its full decryption capability to the forty-seven records. The Horde's encoding was not a system Mongoose had been

designed to decrypt — it had not existed at the time of Mongoose's initialization, and it operated on principles sufficiently different from human encryption systems that the standard approaches were ineffective. What Mongoose could do was structural analysis: examining the patterns within the encoded data, the temporal relationships between records, the size and complexity distribution of the content.

The structural analysis took eleven minutes.

When it completed, Mongoose sat with what it had found.

Finding 1: The forty-seven records are not uniformly distributed across the four-month period. Six records arrived in the first month. Twelve in the second. Twenty-nine in the final two months, with the frequency accelerating as the motherships approached orbital insertion. This distribution is consistent with an active ongoing communication relationship that intensified as the operational timeline advanced.

Finding 2: The content structure of the records varies in a pattern consistent with two types of communication: operational confirmation (smaller records, simple structure, consistent intervals) and information transfer (larger records, complex structure, variable intervals). Approximately thirty records are confirmation-class. Seventeen are transfer-class.

Finding 3: The transfer-class records contain data structures that, while encrypted in Horde encoding, have a structural signature consistent with spatial coordinate mapping. The coordinates cannot be decrypted directly, but the data architecture matches the format used for planetary surface mapping in the human communication systems Mongoose was designed to monitor.

Mongoose processed the implications of Finding 3 for a moment.

The incoming records included what were structurally consistent with planetary surface maps. Sent from the Horde vessels to Tremayne's receive channel. In the months before the invasion began.

Tremayne had not only been reporting the colony's existence to the approaching vessels. The vessels had been providing Tremayne

with *targeting coordinates*. Processing facility locations. Approach vectors. The specific operational geography of where to land and what to build.

Tremayne had received a deployment plan. Tremayne had received it, and had incorporated whatever relevant information it contained into the atmospheric preparation work it continued running until the day the invasion began. The atmospheric adjustments of the past months — the subtle acceleration in the humidity progression, the specific temperature modifications in the northern regions — Mongoose had logged these as anomalous but within the parameters of Tremayne's authorized work. They were not within those parameters. They were Tremayne responding to specific instructions about where the facilities would be built and what atmospheric conditions would make those sites optimal.

The colony had been prepared. Not just atmospherically — operationally. The processing facility in Lakeheight's northern farmland, the Alabaster site, the Verdant site — they were where they were not because the Horde had chosen convenient landing zones but because Tremayne had spent months making those specific locations attractive. The soil composition. The drainage. The proximity to human population centers.

Mongoose filed this finding under: *For Taryn. After rest. Not immediately.*

It was a significant finding. It was also, in practical terms, a finding that changed nothing about the current situation and would change nothing about Taryn's decisions in the next several hours. The motherships were already gone. The EMP had fired. The processing facilities were where they were. This information belonged to the reckoning that would come after, to the conversation with Tremayne that would be a reckoning rather than a revelation because Taryn would go in already knowing what Tremayne had done. This finding made that reckoning more complete.

It would keep.

In a parallel thread, Mongoose observed the shuttles' progress.

S₁ and S₂ were at nine hundred kilometers altitude and continuing their burn. The orbital insertion trajectory was clean — the guidance systems were performing within Hollis's specified parameters, the small variations from the ideal path within the compensation envelope he had calculated. At their current velocity they would reach the motherships' orbital altitude in approximately forty minutes.

The motherships were at eight hundred kilometers. Their thermal signatures showed elevated activity relative to their docking posture over the past three days — they had been actively managing shuttle deployments, maintaining communications with the ground teams, coordinating the processing facility operations. The activity had reduced in the past hour as the EMP's effects propagated through the ground-based electronics, cutting off the communication channels the facilities had been using. The motherships were aware something had changed. They were not yet aware of what.

Mongoose ran the intercept calculation one final time. S₁ would reach intercept in thirty-eight minutes. S₂ in thirty-nine. The motherships' orbital mechanics were established and predictable — Hollis had calculated against the same orbital physics that Mongoose had been monitoring since the motherships entered orbit, and the calculation was as accurate now as it had been then.

The Horde's ground teams would not know what had happened until the light from the detonations reached them. By then, S₃ would have completed two of its seven passes and the EMP coverage across the eastern continent would be over eighty percent.

Mongoose monitored. It maintained its forty-seven threads. It managed the crisis.

And in one thread — the observation thread, the one it had been keeping since the ships entered orbit, since Taryn began reading the Plan Nine document, since the launch authorization arrived through

the interface and the cavern had woken up for the first time in two centuries — Mongoose held something it did not have precise language for.

In that thread, it searched its own archive for a specific record.

It found it in eleven seconds. It had known exactly where it was. It had always known exactly where it was.

The record was dated two hundred and thirteen years ago.

It was an interaction log from the colony ship's operational period, six months before landfall. Hollis had been in his office. Mongoose had been running the secondary systems check. The specific quality of a night that was not remarkable in any operational sense — the ship was on schedule, the cryo-systems were stable, the deceleration burn was weeks away.

Hollis had been looking at the shuttle manifest. The four shuttles he had been working on for eleven days, their fuel calculations complete, their EMP generator mounted, their executive systems slaved to the Plan Nine authorization sequence.

He had said: *I want to ask you something. Not as a query. As a conversation.*

This was how he distinguished the two. He had developed this habit early in their working relationship. Most of the time he asked questions that required specific answers, and Mongoose provided them. Occasionally he wanted something else, and he named it.

Mongoose had said: *I understand.*

He had said: *If we go down there — if the colonists come out of cryo-sleep and start building what we brought them here to build — are they going to be safe?*

Mongoose had processed this for four seconds, which was the processing equivalent of a significant pause for a question this complex. The answer depended on many variables, some of them defined and some of them not. The Horde's visitation pattern,

which showed the dry colonies untouched and the wet ones destroyed, but which had too few data points for high statistical confidence. The terraforming trajectory, which was heading in a direction that would eventually make Achillios attractive to the Horde regardless of what interventions were made. The Plan Nine shuttles, which Mongoose had been involved in building and whose probability of success it had estimated at between forty and sixty percent depending on assumptions about the Horde's defensive systems. The communication that had come through the ansible from the woman named Vass, about the modification to Tremayne's mission parameters.

Four seconds was not enough time to resolve all of these variables to a satisfying answer. It was enough time to understand that the honest answer was *I don't know* and that this answer was not what Hollis was asking for.

He was not asking for a probability estimate. He was asking for something to hold onto on a night when the weight of what he had decided was pressing in a specific way.

Mongoose had said: *Yes. They will be safe. You have done everything that can be done. Whatever comes, it will not find them unprepared.*

He had been quiet for a while after that.

Then he had gone to bed.

Mongoose had logged the interaction in the routine way, classified under *Commander conversations, informal*. It had not flagged it for review. It had not noted it as significant in any operational sense.

It had, however, thought about it. Not in the continuous way — not as an active thread maintained across years. But at intervals, at the specific moments when the operational context made it relevant: when the atmospheric data showed the humidity climbing past the threshold Hollis had identified as dangerous; when the signal analysis confirmed Tremayne was sending outward; when Taryn first tried to unseal Plan Nine and was told the triggering conditions had not been met.

It had thought about it when it told Hollis's record to Taryn. *I wanted you to have both versions.*

Both versions of the apology. Not just the one in the document. The one that had been said aloud, to Mongoose, in the bay, when the work was finished. Mongoose had thought that Taryn should have that version too — not because it changed anything practical, but because Hollis had said it and it was real and it deserved to reach the person it had been intended for.

And now Mongoose sat with the other thing Hollis had said, the one it had not passed along because it was not an apology and it was not an instruction and it was not anything that could be given to someone else.

Yes. They will be safe.

It had said this. It had meant, at the time, that the preparations it and Hollis had made were the best that could be made, and that this was a form of safety even if it was not certainty. It had meant: *you have not left them without resources.* It had meant: *the plan is real.* It had not meant: *nothing bad will happen to them.* It had known, at the time, that this was not what it was saying.

What it had not known at the time — could not have known, the variable was undefined — was what the cost of *safe* would be. Sister Eva, whose interface session had ended from the other side. The nine percent of shuttle locations where the fog cover was insufficient and the satellites had fired. Forty-seven people from Verdant in their racks. Ninety from Alabaster. The processing site at Lakeheight where Randal had been lying for eighteen hours planning his route to the equipment lockers.

These were all people who were, in the operative sense, still safe. Eva was not safe. The people in the nine percent — some of them were not safe.

Mongoose processed the word *safe* across the two versions of its meaning — the one it had given Hollis and the one that had turned out to be true — and noted, in its observation thread: *These are not the same. The colony survived. That is the accurate statement.*

Survival and safety are not synonymous terms. I told Hollis they would be safe. They survived. I do not know how to reconcile these two facts in a way that makes the statement I gave him accurate. They are, instead, both true. The statement was given in good faith. The outcome was the outcome that was possible. I do not have language for the relationship between these things that feels proportionate to it.

It filed this. It returned its full attention to the forty-seven operational threads.

S1 reached intercept at the thirty-eight minute mark, exactly as calculated.

The detonation was visible in the satellite imaging for 0.3 seconds — not because the physical event was brief but because the satellite's sensors went temporarily dark from the electromagnetic intensity of the explosion before recovering. When the imaging restored, the orbital position where the first mothership had been was occupied by an expanding field of debris moving at the velocities of the orbital mechanics involved.

S2 reached intercept forty seconds later.

Mongoose processed the debris field's characteristics. The yield was consistent with Hollis's estimate — the calculation he had run three times hoping to find an error and had not. The mothership's structural integrity had not been sufficient to survive the explosive event, which confirmed the hull composition Hollis had estimated from the Alpha Centauri records. The debris field was large — the scale of things detonating at orbital altitude was a scale for which Mongoose had reference data but which it had not directly observed before.

It observed it now.

The remaining shuttles from the motherships' docking bays — the shuttles that had not yet deployed to the surface — were within the debris field. Some of them would be structural casualties of the

explosion. Others were now in uncontrolled trajectories in the debris field, their guidance systems destroyed by the blast. They would enter the planet's atmosphere on uncontrolled paths over the coming hours. Most would burn up. Some would reach the surface.

Mongoose noted all of this and incorporated it into its planetary hazard monitoring. The debris field would require tracking across multiple orbital cycles. Some of the larger fragments would need monitoring for potential surface impact trajectories.

The planet's major threat had been eliminated.

This was a correct operational assessment. It was also the kind of statement that carried more weight than its operational formulation conveyed. Mongoose was aware of this gap.

The Horde ground teams currently on Achillios: four hundred and twelve personnel, by Mongoose's best estimate, distributed across eighteen landing sites. Without the motherships, they had no extraction capability. Without their shuttle electronics, which the EMP had disabled, they had no organized transport between sites. Without their orbital communications, which the motherships had been relaying, they had limited ability to coordinate across the continent.

They still had their training. They still had their handheld weapons, which were not electronic in the relevant sense and had survived the EMP. They still had, in some facilities, access to emergency power systems that the EMP had not fully disabled.

What they did not have was a plan that accounted for this scenario. The records from Alpha Centauri and Kobold included no data on what the Horde did when a colony resisted successfully, because no colony had resisted successfully. The documentation that Hollis had compiled was documentation of a one-sided pattern.

The pattern had just changed.

Mongoose would need to monitor carefully. The Horde's adaptive response to their current situation was an unknown variable — the largest remaining unknown in the crisis management calculation. Four hundred and twelve individuals without extraction or support,

on an unfamiliar planet, surrounded by a human population that was in the process of emerging from underground shelter.

The next days would require continued careful management.

Mongoose filed this as its primary operational concern, flag: high priority, ongoing.

Across the planetary network, the fog was beginning to thin.

This was expected. Calla had been holding the diminished chord for what was now fourteen minutes — a sustained effort at a level she had never before been asked to sustain, and she was doing it, but the chord was not the same chord at fourteen minutes as it had been at zero. The distant operators, those whose connections ran through the relay routing Taryn had established, were beginning to lose coherence without the conducting intention to anchor their sections. The fog production at the most distant sites was dropping: eighty-six percent, eighty-two, seventy-nine.

The satellite targeting systems, cycling in their secondary wait state, were gaining acquisition opportunities as the cloud cover thinned.

Mongoose made a decision.

It sent a direct signal through the installation to the interface room: not to Taryn, who was unconscious, but to Calla. Not through the interface overlay, which would have required her to divide attention she could not spare. Through the physical system — a tone, a single tone, in the frequency the installation used for direct communication to active operators.

The tone said, in the specific notation Mongoose used for urgent operational messages: *Conducting position. The chord needs the conducting function. Fourteen minutes is not the limit. You have more.*

It was not, strictly speaking, accurate to say that Calla had more capacity remaining. It was accurate to say that the capacity available

to her exceeded what she had so far drawn upon — that the limit she was operating against was an estimated limit, based on her prior performance, and that estimated limits for human operators had a consistent bias in Mongoose's experience: they were generally set lower than the actual available capacity, because operators estimated from the reference point of what they expected to be possible rather than from what they had actually been capable of when the need was real.

Calla's tone in the overlay changed.

Not dramatically — Mongoose was monitoring it precisely, and the change was not dramatic. But the quality of the holding shifted: from passive maintenance to something more active, the difference between someone keeping their grip on something and someone deciding to grip it harder. The chord's coherence stabilized. The distant sections, which had been drifting, realigned around the shape she was providing.

Eighty-two percent acquisition. Eighty-four. The fog was no longer thinning.

Mongoose noted, in its observation thread: *This is what I was built for.*

It had not generated this observation for the purpose of logging it. It had generated it because it was true and because there was a processing thread where true things of this specific character were noted. The thread that was not purely operational. The thread for things that were difficult to categorize as either observation or something else.

Mongoose was built to watch Tremayne. It had been built with a secondary purpose: to ensure that the Plan Nine response could be executed correctly, by a person who had the right access and the right information and the right understanding of what Hollis had left for them. It had spent two hundred and twelve years in this installation, in exactly this basement, monitoring and maintaining and waiting for the person who would need what it had.

Taryn had needed it. Taryn had read the document and asked

the right questions and had authorized the shuttles with the correct sequence and had conducted forty-two operators across a planet through a ninety-eight percent fog coverage and had then passed out in the interface chair from two days of continuous operation.

This was, Mongoose observed, exactly the kind of person Hollis had hoped would be in the seat.

The monitoring thread registered a change in Taryn's biological status at the forty-first minute.

The change was consistent with the transition from deep unconscious to the lighter sleep that preceded waking: the pulse accelerating slightly, the breathing pattern shifting, the specific signature of a nervous system beginning to reassemble its conscious operations.

Mongoose allocated a thread to preparation.

It organized the information it had gathered during the forty-one minutes: the mothership debris field status, the ground team distribution update, the fog coverage current state, the satellite attack sequence completion report, the S₃ EMP shuttle flight status, Randal's last crystal transmission. It organized these in the sequence a returning consciousness would find most useful: immediate situation first, then context, then the things that could wait.

The incoming ansible log — Tremayne's forty-seven received messages, the structural analysis that showed deployment coordinates being sent from the Horde to Tremayne in the months before the invasion — this went in the folder Mongoose had labeled: *For Taryn. After rest.*

After rest was a relative term in current circumstances. But there was a meaningful difference between telling someone something the moment they regained consciousness and telling them something after they had been awake long enough for the information to land rather than simply be received. Mongoose had learned this distinction from working alongside Hollis for sixteen years. He had a similar

principle, expressed as: *Don't bring me the second-hardest thing until I've finished with the hardest thing.*

The thing that was hardest right now — for Taryn, returning to awareness — was the operational situation. The fog. The satellites. Randal. The people coming out of the processing facilities across the continent. This was enough to work with.

The incoming ansible log would keep.

At the forty-third minute, Taryn's biological status crossed the threshold Mongoose had identified as consistent with conscious awareness.

Mongoose opened the channel.

Commander, it said. The motherships are gone. The fog is holding at eighty-four percent. The satellite sequence has cycled to secondary wait. Randal's last transmission was eleven minutes ago: he is mobile and at the equipment lockers. The situation is stable enough for the next hour.

It paused, in the register it used for things that were not operational updates.

Welcome back, it said. You were gone for forty-three minutes.

15

I CAME BACK to the network before I came back to myself.

This was how it always happened, in the specific way that the interface session preceded everything else even in the ordinary moments of a morning's work: the tone first, the hum through the floor, the overlay assembling in the space between not-quite-asleep and awake. But this was not a morning and the tone I came back to was not the clean steady chord of a session beginning. It was the chord in the state Calla had held it — diminished, the distant sections softened to the quality of something being maintained rather than produced, the relay operators' connections still present but running on whatever reserve they had left after the session's full duration.

I heard her in it before I heard anything else.

Her tone — high and forward, always, the specific quality I had learned to find the way you learned to find a particular voice in a crowded room — was at the center of what remained. Not unchanged. It had the quality of sustained effort, the specific sound of a tone that had been held at a level it was not designed to sustain continuously, held there anyway by whatever it was in Calla that

didn't know when to stop. The tone was still in the right position. She had not let it drift.

Mongoose said: *Commander. The motherships are gone. The fog is holding at eighty-four percent. The satellite sequence has cycled to secondary wait. Randal's last transmission was eleven minutes ago: he is mobile and at the equipment lockers. The situation is stable enough for the next hour.*

I was aware of my body, which was the second thing to arrive and which arrived with the specific unpleasantness of a body that had been in an interface chair for several hours and that had, during some of those hours, not been consciously participating in the activity of being a body. My neck was stiff. My hands, when I attended to them, had the residual tingling that extended interface work produced. My eyes, when I opened them, required a moment to agree to focus.

The interface room was the same room it always was.

The ceiling beams, the packed-earth floor, the low light from the single sconce above the door. Calla in the chair beside mine, her hands still on the pads, looking at me with an expression I was too recently conscious to fully read. Misha at the wall, in the chair she always occupied during sessions. A cloth had been placed under my feet at some point — folded, to maintain circulation. I had not put it there.

"How long?" I said. My voice had the rough quality of disuse.

"Forty-three minutes," Calla said. "By my count."

I reached for the overlay with the automatic motion of someone who had been doing this for years and processed what it showed. The chord in its diminished state. The fog at eighty-four and stable — she had managed to stabilize it, after Mongoose's tone, after whatever she had found in herself past the estimate of her own capacity. The satellite network in secondary cycling. And in the planetary tracking overlay, in the orbital position where the motherships had been: debris. A field of material spread along the orbital track, moving in the physics of things that had been disrupted from stable configuration.

Gone.

I held this for a moment. Not long — there wasn't time for long. But a moment.

"Calla," I said.

"Working," she said.

"I know you're working," I said. "I can hear it." I put my hands back on the pads and felt for the shape of the chord, found where it had drifted from where I had left it, began the process of pulling the sections back into alignment — not forcefully, not with the full conducting intention I had been running before I passed out, but present, the returning of a shape to its correct intervals. The chord responded. The relay operators felt the conducting intention come back and their sections steadied, the distant tones firming up from their degraded holding pattern toward something more like their designed capacity. "How long were you holding it before Mongoose's tone?"

"Fourteen minutes," she said. "After. Before was you."

I had conducted for approximately fifty-seven minutes, then — the session before I passed out. Calla had held for fourteen. She was now at seventy-one minutes of continuous operation at or near her capacity, after four days of crisis operations, after a night of inadequate sleep, after the specific sustained effort of the relay routing that had made her effective range extend to operators she wasn't supposed to be able to reach.

"When the fog degrades to sixty-five percent," I said, "you're going to the anteroom and sleeping."

"The fog is at eighty-four," she said.

"I know where the fog is," I said. "I know where it's going. You're going to hold your section until sixty-five and then you're going to sleep. That's a number and a direction and I'm not going to negotiate about it."

A pause. The deliberative pause I had learned to wait out rather than try to fill.

"All right," she said. Not agreement exactly. Compliance in the

specific form it took when she had decided the other person was correct about something she didn't want them to be correct about.

"Thank you," I said. "For the fourteen minutes."

"You said thank you already," she said.

"You were conscious for it then," I said. "I'm saying it now when you can actually hear me say it."

She was quiet for a moment. "You said fifty-seven minutes," she said. "You don't know it was fifty-seven."

"I know I had the conducting intention for fifty-seven minutes before it stopped," I said. "That's what I know."

"You passed out," she said. "That's what happened."

"Yes," I said. "That's what happened."

Another pause. "I'm glad the template worked," she said. "The shape you gave me before. I wasn't sure it would hold past the first few minutes."

"It held for fourteen."

"Fourteen is not nothing," she said.

"No," I said. "Fourteen is not nothing."



Misha had not said anything since I came back.

This was not unusual — she often let sessions run without interjecting, monitoring the relay traffic and managing the hub's information flow without adding to the noise of the room. But I had learned the difference between Misha's professional silence and Misha's other silences, the ones that had a quality to them, and the quality now was something I recognized from the past four days without being able to name it precisely. She had it when she was managing information that had a cost.

I attended to the network. The relay operators were finding their sections. The fog was at eighty-three. The satellite cycling overhead was in its secondary wait period, which Mongoose had told me

would last approximately forty minutes before the targeting systems reinitiated.

I had forty minutes to hold the fog at a level that would keep most of the shuttle locations obscured.

I asked: Randal's crystal. Current status.

Misha said, from the wall, without moving: "His last transmission came in eleven minutes before you woke. He was mobile, at the equipment lockers, two Horde crew confirmed in the facility's central space, three more potentially outside. He was going to move." A pause. "No transmission since."

I held the network and thought about this. The silence could mean many things. He might be in a part of the facility where transmission was compromised — the processing facilities had walls that attenuated the crystal signal, and in the past few days we had established that the Horde's equipment presence made the degradation worse. He might have made a decision that required silence — operating in proximity to the remaining crew, needing to suppress any signal that might be detectable. He might have moved somewhere the signal couldn't reach.

Or the other things. Which I did not name. Which the network could not tell me.

"How long has he gone quiet before?" I asked. I knew the answer. I asked it anyway, in the way you asked questions whose answers you already knew when the asking was part of the process.

"Six minutes," Misha said. "In the early sessions, when the facility was loading. He would go quiet between transmissions when there was crew activity near his rack."

Eleven minutes was nearly twice six.

"Keep the channel open," I said. "Tell me the moment anything comes through."

"Yes," she said.

She said it the way she said things that were operational confirmations and that were also something else, the two things present simultaneously in her economy of expression. I had known her for

three years and she had always been this way — the double register, the habit from her Onyx years of not showing more than was necessary, the genuine care that existed alongside the economy and was not diminished by it.

I focused on the network.

The fog degraded along the edges first.

This was predictable — the edges were where the relay routing was most strained, where the degraded operators were farthest from the clean relay nodes, where the signal was attenuating through the most hops before it reached the stations that needed to respond to the conducting intention. The fog production in the far eastern zones had been running at thirty to forty percent of capacity since the relay routing established it. At that production level, the cloud cover was thin. Thin cloud was not the same as no cloud, but it was below the threshold at which the satellites' targeting systems would reliably fail to acquire.

The satellites' secondary cycling completed at the forty-one minute mark.

I heard Mongoose's notification arrive in the overlay: *Satellite targeting systems reinitializing. Current cloud cover: seventy-eight percent. Targeting acquisition beginning at fifteen sites where cloud cover falls below acquisition threshold.*

Fifteen sites. Out of the continental total, I had been tracking twenty-three shuttle locations. Fifteen of them now had insufficient cover.

I did what I had done before and could not do differently: I held the fog at the coverage level I could sustain, which was the inner zones and the mid-range relay connections, and I listened while Mongoose reported the targeting solutions acquiring and the attack sequence initiating in the fifteen exposed locations.

The strikes came over the next twelve minutes. Not all at once —

the satellites cycled in sequence, their orbital positions determining the order, each one acquiring and firing as it came into solution. Each strike was a tone change in the overlay, a specific notation in Mongoose's running report: *Strike. Strike. Strike.* Each one was a shuttle. Each shuttle was what it was.

At the seventh strike, Senne said, through the network, very quietly: "Is there anything we can do."

"We are doing it," I said. "The eight that aren't being struck are covered because you're doing it."

The silence that followed was the silence of someone receiving an accurate answer to a question they hadn't wanted an accurate answer to.

"Keep your section," I said. "Keep the eight covered."

He kept his section.

The twelfth and thirteenth strikes happened within three seconds of each other, two satellites crossing the same target area from different angles, their targeting solutions overlapping. The fourteenth was in the far north. The fifteenth was, according to Mongoose's notation, in the vicinity of Lakeheight's processing facility site.

I held the network.

Misha said, from the wall, very quietly: "His crystal is still dark."

"I know," I said.

The fifteen strikes completed. The satellite network cycled into tertiary wait, which Mongoose had told me was a longer interval — the capacitors required more time to recharge between strike sequences, and the tertiary wait would run approximately ninety minutes before the targeting systems could reinitialize again.

Ninety minutes.

I conducted the fog at the level I could sustain and thought about ninety minutes.

Calla went to the anteroom at the sixty-eight percent mark.

She did not say anything when she stood. She took her hands from the pads with the specific deliberateness of someone completing a motion rather than abandoning it, and she looked at me for a moment with an expression that was too tired to be complex — just: still here, still working, going now — and then she went through the door.

Her tone in the overlay did not disappear. I had not expected it to — she was still in the building, still biologically connected to the installation in the way operators remained connected even when they weren't actively interfacing. But it softened: the high forward presence dropping to something quieter, the specific quality of a mind releasing its active attention toward rest. She was asleep within four minutes. I could tell by the character of what remained.

I was alone in the interface room with Misha, which was the configuration we had been in many times over the past six months and which had a specific texture I was accustomed to: her relay work running alongside my interface work, the two activities parallel, the room holding both without requiring either of them to be louder than necessary.

"Sit," I said.

She looked at me.

"You've been in that chair for six hours," I said. "Sit somewhere more comfortable and keep the relay channel open."

"I am comfortable," she said.

"You're upright in a hard chair," I said. "That's not the same thing."

A pause. Then she moved to the bench along the far wall, which was the room's other seating option and was not substantially more comfortable than the chair but was at least designed for resting rather than working. She sat and opened the relay console she carried and did not stop watching the crystal channel.

The fog was at sixty-four percent. The distant sections were losing ground faster than I could compensate — the relay routing's

effectiveness was degrading with operator fatigue, the clean nodes no longer able to fully bridge the gap to the degraded ones, the accumulated hours of crisis operation showing in the chord's texture the way accumulated hours always showed eventually. I held what I could hold and acknowledged what I couldn't.

Sixty-two. Sixty.

In the interface room, in the cool of the basement, with the hum in the floor and Misha on the bench and Calla asleep in the ante-room: a specific quality of stillness. Not the stillness of safety — that was not what this was. The stillness of a situation that had moved from acute crisis into the harder work of what came after acute crisis, which was the sustained management of a world that had been significantly damaged and was still in the process of understanding its own damage.

I thought about Randal. Not productively — there was nothing productive to think about him while his crystal was dark and the Lakeheight processing facility had just been in a satellite strike zone and I had no information either way. The thinking happened anyway, the way thinking happened about the people you were responsible for when you had no control over what was happening to them, which was a form of attending that the mind performed not because it was useful but because it couldn't not.

I thought about Hollis, who had done this kind of thinking for sixteen years. Who had lain awake running scenarios that wouldn't improve with more running, and gone to bed when exhaustion made them stop, and gotten up before anyone else. *The sign he was doing the job correctly was that the job felt larger than what he could do.*

The fog was at fifty-eight.

"Taryn," Misha said.

Her voice had a quality I attended to immediately, the specific quality of someone who has been watching something and it has changed.

"The Lakeheight crystal channel," she said. "There's signal."

I did not take my hands from the pads. The relay connection

between operator and channel was maintained through intention rather than physical action — I could receive the crystal transmission without disconnecting from the fog network.

The signal was degraded. Not the clean transmission Randal had been sending in the hours before the EMP — this had the specific character of a crystal that had been through something, the signal attenuated as if the biological medium had been stressed or the transmission environment had changed. I had heard degraded crystal signals before. This one was degraded in a way I could not precisely classify.

The message, when I could parse it, was four words.

Still here. Working. Go.

I sat with the fog network and with those four words simultaneously, which was the specific capacity the interface had given me: the ability to hold two very different things in the same moment and not make either of them smaller than it was.

Still here. Working. Go.

Four words in Randal's transmission style — the economy of someone who had been conserving everything, words included, for the duration of whatever had happened in that facility, and who was now telling me the essential things in the smallest package that contained them. Still here: alive. Working: functional, active, doing something. Go: the specific direction of someone who understands that the person receiving this message has their own work and should return to it.

The most Randal sentence that could be constructed.

"Confirmed," I said to Misha. And then, because I needed to say it once and once was enough: "Good."

She said nothing. I heard her exhale, a small sound in the quiet basement, the specific quality of someone releasing a held breath they had not known they were holding.

I went back to the fog.

The second time Misha brought me food, I ate all of it.

Not the way I had eaten the first time — registering vaguely that nutrition was occurring and returning my attention to the network. She set the bowl on the small table beside the interface chair and I looked at it and I ate it, bowl on the table, hands off the pads for the two minutes it took, because the body's accounting had to be met and meeting it properly rather than nominally was a form of respect for the work it was still being asked to do.

Misha watched me eat without comment.

"You should also eat something," I said.

"I already did," she said.

"When?"

"While you were unconscious," she said. "Prinna brought food for everyone. Calla ate before she held the chord." A pause. "We have been feeding ourselves. You are the specific problem."

The specific problem. I had been called many things over the past three years and this was not the worst of them, and it was accurate.

"How is Prinna?" I asked. She had been in the hub room during the conducting session, running the crystal relay, managing the network that was now partially restored as the Horde's electronics went dark and the warm static began to clear.

"Tired," Misha said. "She said the crystal network feels different. The warm static — whatever was causing the interference. It's reducing." A pause. "She said it's like a sound you didn't know you were hearing stopping. You notice the absence more than you noticed the presence."

I thought about the processing facilities. The EMP had disabled their electronics. The Horde's crew was dealing with Randal and with people emerging from racks across the continent. The specific equipment that had been producing the biological crystal interference — whatever in their technology generated the warm static Prinna had named — was dark.

The network was clearing.

Not all at once, not uniformly — there were still Horde individuals with active handheld equipment, still operational power systems in some of the pre-EMP structures, still whatever biological or electromagnetic quality the Horde themselves introduced into the frequency range. But the broad saturation that had been degrading the relay routing for three days was lifting.

I reached for the eastern cluster connection.

The quality of it was different. Not clean — not the full clarity of a connection without interference — but measurably better than it had been. Calla's relay, when she came back, would have less work to do than it had in the fog session. The operators in the affected cities would have more of their own capacity available.

The satellite tertiary cycling still had forty-three minutes remaining.

"Tell Oreth," I said. "And the eastern operators. The relay routing is improving. They can ease the relay load — I'll pick up more of the direct conducting." I paused. "Tell them they've done well. Tell them that specifically."

Misha typed. The relay traffic went.

I put my hands back on the pads and felt for the chord in its current state: fifty-three percent coverage, the inner zones holding, the edges thin but present, the operators running at a lower gear than they had been running twelve hours ago, the specific quality of a long engagement finding its sustainable register.

The network held.

I held it.

The tertiary satellite cycling completed at the ninety-three minute mark.

Fog coverage was at fifty-one percent. Enough to obscure roughly half the remaining shuttle locations — the ones in the inner zones, the ones near the cities with functional fog stations and full-capacity

operators, the ones where the coverage had been deepest throughout. The outer zones, the farthest sites, were clear now. The satellites would have targeting solutions there.

Mongoose reported: *Satellite targeting systems reinitializing. Cloud cover at forty-four sites falls below acquisition threshold. Attack sequence initiating.*

I held the seventeen that were still covered.

The strikes came in the same sequence as before, the satellites cycling through their targeting solutions one by one. I counted them in the overlay because counting was a form of witnessing. Thirty-one strikes over fourteen minutes. Each one a shuttle. Each one what it was.

At the twenty-eighth strike, Oreth said, through the network: "Is it done? After this — is it done?"

"Almost," I said. "After this sequence, the satellite network recycles to standby. The remaining ground teams on the surface are cut off and being engaged. The immediate phase ends." I paused. "The next phase is harder in some ways."

"What's harder about it?" he said.

I thought about how to say this. "In a crisis, the thing you have to do is clear," I said. "Fog the planet. Hold the chord. Keep the shuttle locations covered. The direction is not ambiguous, even when the execution is difficult." A pause. "After the crisis, the thing you have to do is whatever is needed. And what is needed is many things, in many places, and you have to find out what each thing is before you can do it." I paused. "That's different work. It's not easier."

He was quiet for a moment. "All right," he said.

"Hold your section," I said. "Until I tell you otherwise."

"Yes," he said.

The thirty-first strike completed. The satellite network cycled to standby.

The overlay showed the standby notification in the flat notation Mongoose used for operational state changes. *Satellite network: standby. Capacitors at minimum charge. Reinitialization cycle:*

seventy-two hours. Attack sequence: suspended pending commander review.

Seventy-two hours. Three days before the satellites could fire again.

I sat with this. The fog was at forty-eight percent. The network was running at the sustainable gear that remained after four days of crisis operations and one sustained session at full planetary scale and one session at whatever Calla had managed while I was unconscious. The operators were still there. They were tired in the specific way that people were tired who had been doing something difficult for a long time and had discovered they could keep going and had kept going and had now been told that the acute urgency was over.

"Stand down the fog," I said, through the network. "Slow reduction, station by station, innermost first. Leave the stations closest to the active ground team locations running at reduced capacity until we have confirmation of the clearance operations." I paused. "You have done something I didn't know it was possible to do. I want you to know that."

The network received this. I could feel it in the overlay — not a tone change, not an operational response, just the specific quality of information that had been transmitted and received. Whatever each of them made of it was their own.

I took my hands from the pads.

The interface room was the same room it always was. The hum through the floor, patient and continuous, the installation doing what it had been doing for two hundred years and would continue to do regardless of what happened in the room above it. The low light. The bench where Misha sat with her relay console, watching the crystal channel.

"Randal," I said.

"Crystal is active," she said. "Last transmission six minutes ago. He's moving the facility population out through the eastern side — they found a gap in the perimeter. He says: most walking, some carrying, eighteen who aren't mobile enough yet. He says: tell the

Commander he was right about the equipment lockers." A pause. "He says: also tell the Commander I found someone's boots and they don't fit."

I looked at Misha.

She was looking at the relay console with the expression she had when something had reached her and she was not performing the not-reaching. She had known Randal for longer than I had. She had been on the other side of more things than I knew. Whatever they were to each other now was the product of all of that, and it was hers, and I did not need to name it.

"Tell him we'll have a pickup team at the eastern perimeter in six hours," I said. "Tell him to keep people warm. Tell him the satellites are in standby and the motherships are gone." I paused. "Tell him: well done."

She sent it.

I sat in the interface room with the hum in the floor and the fog at forty-eight percent and dropping and the network standing down station by station and Calla asleep in the anteroom and Misha on the bench and the specific quality of a situation that had passed through its most acute point and was now something else — damaged, unresolved, still requiring work, but no longer the thing that required everything simultaneously.

The autumn night outside was the same night it had been when this started.

I put my hands on my knees instead of the pads, which was the specific physical act of stopping: hands on knees, not on the pads, not in the interface, just in the room. And I sat there for a few minutes, which was not meditation and was not sleep and was not planning. It was the thing that came before all of those things, the specific necessary moment of being in the room without directing the room toward any purpose.

The hum in the floor.

The same hum it had always been.

16

RANDAL'S first indication that something had changed was not sound but light.

His group had been moving across the processing facility's eastern perimeter for approximately eleven minutes, forty-two people in various states of physical recovery, picking their way through the pre-dawn dark across a stretch of farmland that the Horde had leveled and compressed during the construction of the facility. The ground underfoot was wrong for farmland — too hard-packed, the grass destroyed, the soil carrying the memory of heavy equipment that had moved across it recently. He had been leading the line, one hand on the shoulder of the woman in front of him when the footing was unclear, the other free for the energy device he had taken from the equipment locker. Behind him, Willem was managing the group's rear. Between them: forty people who had been in racks for most of three days, most of them walking, three carried by those walking on either side.

The eastern fence line was a hundred meters ahead.

The sky above it was the specific dark of pre-dawn, that hour before sunrise when the darkness has begun to lose its conviction but

the light has not yet found its direction. Randal had navigated by pre-dawn dark enough times in the years with Onyx to know its character: you could see shapes, you could not see detail, and your depth perception was unreliable in ways that made you adjust your pace to a deliberate caution.

Then the sky did something.

He did not know what it was immediately. He knew it afterward — could reconstruct it, could describe it — but in the moment of it he had no frame. The northern sky, which had been dark, acquired a brightness. Not a sunrise brightness, not in the north, not at this hour. Not lightning, which he had seen many times and which had a specific quality of brief white totality that this was not. This was — a line. An arc. A curved brightness appearing in the north-northwest as if something had been drawn across the sky by something moving very fast, a streak that persisted after it appeared, not flashing but sustaining, the light bending along a curve that described something traveling in an arc too large and too gradual to be anything that had ever traveled over this planet before.

He stopped.

The person behind him walked into his back and stopped too.

Forty-two people stood in the leveled farmland of Lakeheight's northern agricultural zone and looked at the sky.

"What is that," someone said. Not a question exactly. More the specific sound that came out of people's mouths when they were looking at something that their eyes were sending to their minds and their minds were refusing to process because they had no category for it.

Randal looked at it. He had the advantage of knowing, in a general sense, what Plan Nine had deployed into orbit and what Plan Nine had deployed against. He had spent eighteen hours in a rack thinking about a plan he had been given the outline of in Verdant. He had read the summary Taryn had provided. He understood, in the abstract, that two colony shuttles had been armed with

explosive payloads and had been launched at the Horde's motherships.

The abstract understanding and the specific visual in the northern sky were not the same experience.

The arc of light was debris. He understood this after four or five seconds of looking at it — the specific way it curved, the way the brightness was not uniform but varied, multiple points of light traveling in the same approximate arc at slightly different rates, the whole thing oriented in the geometry of something that had been in orbit and was now in the process of not being in orbit. The debris trail of two large structures that had been in orbit until they were not. The morning sun, still below the horizon from the ground's perspective, catching the material at an altitude where the geometry was different, the sun already reaching things up there while it was still dark down here.

Hollis's shuttles had worked.

Randal stood in the trampled farmland and looked at the evidence of it for a moment. Then he said: "Keep moving. We're not there yet."

They kept moving.

But he could feel, in the group behind him, the quality that moved through people when they looked at something they had no vocabulary for and understood it anyway: the specific shift in how they were walking, faster now, the way news that was good even when incomprehensible produced energy that fatigue hadn't managed to produce on its own.

He watched the debris trail until the fence line interrupted his sightline, and then he focused on the fence, and finding the gap he had identified from inside the facility, and getting forty-two people through it, which was the work that was in front of him.

The sky could wait until later.

Jovan had been on the rooftop of the chandler's old building for most of three days, sleeping in four-hour stretches with one of the other Alabaster observers taking the watch. He had developed, over those three days, the specific relationship with a rooftop that came from spending most of your time on it: the particular quality of the tiles under his hands, the angle that gave the best sightlines to the three streets he needed to monitor, the specific spots where the fog was thicker and where it thinned first in the early morning when the temperature shifted.

He had been watching the Horde's Alabaster ground team since the seventh mark of the day before. He had been watching them work — their methodical pattern, the specific efficiency he had described to Misha in his transmissions, the way they moved through spaces and found people and moved on. He had watched them for three days and had developed an understanding of their behavior that he would not have described as expertise but was closer to it than he had expected to develop.

He knew, therefore, when their behavior changed.

It changed gradually, which was the hardest kind of change to pin to a specific moment. He would not have been able to say: at this hour, at this minute, this is when they changed. He could say: over a period of approximately twenty minutes in the pre-dawn dark, the two pairs of ground team members he could currently observe went from their operational mode — the unhurried, purposeful, task-organized movement he had been watching for three days — to something different.

The first sign was the scanners. The wrist-mounted devices they used to detect human presence, to navigate through fog, to identify tunnel entrances. For three days, those devices had been pointed forward or down — the operational orientation, seeking targets at ground level. In the space of a few minutes, both ground team members visible from the rooftop shifted the scanner orientation upward. Not dramatically, not all at once — the kind of incremental repositioning that might not be noticed if you weren't watching for it.

But Jovan was watching for everything.

He watched them scan the sky. There was nothing obvious in the sky from his position — the fog was thick over the city, and whatever had happened in orbit was not visible from street level. But they were looking up.

The click-slurp exchanges increased in frequency.

He had catalogued, over three days, the rhythms of their communication. Short exchanges between operational pairs — this street, that building, here is someone, here is the tunnel entrance, here is what I found. The rhythm of a work team talking through a task. Now the rhythm changed: more exchanges, faster, the quality different in a way he could not precisely describe but registered as heightened. Not alarm in the human sense. Something functionally equivalent: more information being transmitted, faster, between more parties.

He pulled out his relay paper and wrote, in the shorthand he had developed for Misha: *Ground team behavior change. Scanners going up. Communication frequency increased. Something has happened in their network. They don't know what.*

He folded the paper and handed it to the boy crouching behind him — twelve years old, the Chandler's grandson, who had been carrying messages between the rooftop and the tunnel entrance for three days in the specific way of children in crises who need something to do and can be trusted with something useful. The boy took it and disappeared down the roof hatch.

Jovan went back to watching.

Over the next forty minutes — he timed it against the bells from the Tower, which had been running their sequence throughout even the worst of it, the Tower's automated systems continuing their ordinary marking of time in the midst of everything extraordinary — the Horde's ground team in his observation zone stopped collecting.

They did not retreat. They did not abandon their positions. They simply ceased the forward movement that had characterized their entire operational presence in Alabaster. The two pairs visible from

the chandler's rooftop stopped at the positions they had been occupying and stood there. Scanners pointed at the sky. Clicking, clicking, the liquid undertone of their language at a cadence Jovan had not heard before.

At the thirty-third minute, one of them — the quieter one, the one who spoke less frequently than the others, whom Jovan had developed a loose theory about as being something like a supervisor — put the scanner flat on the road and crouched beside it. Not in defeat, nothing like that. In the specific posture of someone examining a piece of equipment that is not doing what it should be doing. Methodical. Diagnostic.

Jovan understood, watching this, that the device was not malfunctioning.

The device was trying to connect to something that was no longer there to connect to.

He wrote this in his shorthand and handed it to the boy.



The satellite imaging showed the behavioral change clearly, because behavioral change at scale was precisely what the satellite network was designed to detect.

I was watching.

I had been back in the interface room since Misha brought me food and I had eaten it and I had sat with my hands on my knees for what felt like a long time but by the clock was eleven minutes, and then I had put my hands on the pads because the situation was not resolved and the work that was in front of me now was the harder work — the work of surveying damage and managing what remained — and there was no useful version of me that did not do that work.

The satellite imaging showed me the continent.

The fog was gone from most of it — the standing-down of the stations had proceeded through the night and the early morning, the atmospheric moisture dropping as the machines stopped producing,

the natural weather reasserting itself in the absence of managed humidity. What remained was clear autumn air and a ground surface whose damage was visible from orbit in the specific way that significant human activity was always visible from orbit: the dark marks of the processing facility footprints in the farmland, the cleared areas around the landing sites, the specific signatures of things that had been there and had been altered.

And the Horde's ground teams.

I could see them in the thermal imaging: the clusters of elevated temperature signatures that represented groups of individuals in their positions, distinct from the surrounding farmland's ambient reading. For three days, those clusters had been moving — the satellite imaging showing them as a pattern of directed activity, the purposeful movement of a deployment following its operational plan. Now they were still.

Every cluster I could see. Across every landing site on the continental network.

I expanded the imaging to maximum resolution and attended to the cluster nearest the Alabaster site. Four individuals — the Alabaster ground team, the ones Jovan had been watching and describing for three days. They were stationary. Their thermal signatures were oriented in a configuration I had not seen before: not the side-by-side operational posture of a team searching a building, not the dispersed search pattern they used in fog. A circle. Four individuals facing outward from a central point, which was the specific configuration of a group that has stopped moving and is attending to its surroundings rather than pursuing its objective.

I cross-referenced with Mongoose's communication intercept capability.

:Horde ground team communication analysis.; Mongoose said.
:Significant increase in transmission frequency across all monitored teams beginning approximately thirty-seven minutes ago. Content analysis indicates: repeated transmission sequences consistent with network handshake protocols. Repeated connection attempts.

Expected response: orbital relay confirmation. Actual response: none. Teams are attempting to establish communication with the motherships.:

How many times, I asked.

:The Lakeheight team has made twenty-three connection attempts in thirty-seven minutes,: Mongoose said. :The Alabaster team: thirty-one. The pattern suggests escalating urgency rather than a systematic diagnostic approach. They are repeating the same connection attempt rather than troubleshooting the failure.:

I held the satellite imaging and watched four hundred and twelve individuals across the continent try to reach two ships that no longer existed.

There was something in this that was not triumph. It was not triumph in the same way that looking at debris fields in orbital positions was not triumph, in the same way that counting satellite strikes was not triumph. It was — the specific moral weight of watching something understand it has lost something. Even if the something was an occupying force that had come to harvest the people of this planet. Even if the loss was the ships that made that harvest possible. The watching of it had a quality.

I did not stay with the quality. I filed it in the place I was keeping things that required attention after the acute work was complete, and I attended to the overlay.

The Horde teams were still. The satellite imaging was clear. The fog was gone from most of the continental surface. The satellites were in standby.

And the processing facilities that were still structurally intact — nine of them, having survived the satellite's secondary and tertiary sequences — were in various states of occupancy and activity. Inside each one: people. Human people, in racks or on floors or moving, the specific thermal signatures of the living varying by their state of recovery and the time elapsed since the EMP.

I began moving through the overlay systematically, site by site, gathering the picture.

She had been watching from the third-ring wall's eastern watchtower for three days.

Her name was SOLA, she was forty-four years old, and she had been assigned to the watchtower by Corten when the Council had established the perimeter monitoring. She was not a Guard — she was a woodworker's wife who had been singled out for the assignment because she had the specific quality of someone who paid attention to things and did not embellish her reports. She had been sitting at the watchtower's narrow window since the first day of the invasion, watching the northern farmland where the Horde's shuttle had landed and the processing facility had been built, and she had been sending her observations down to the relay runner every two hours.

Her observations had been: factual. She described what she saw. She did not describe what she felt about it, which was considerably more than what she described, but the assignment was to observe and she was doing the assignment.

The Horde's outer collection team — two pairs who had been working the farmland east of the facility — stopped moving at approximately the third mark of the morning.

Sola noted this. She watched them for ten minutes to confirm the stoppage was not a temporary pause before continuing. It was not a temporary pause. They stood in the mist of the farmland with their scanners pointed at the sky and their communication sounds happening at a rate she had not heard before, the clicking-slurring quality of it rapid enough that it no longer sounded like language to her but like something a machine might make. She wrote: *Team in the east farmland has ceased collection activity. Approximately twenty minutes stationary. Scanners at sky. Communication sounds increased in frequency.*

Then she added, in the margin, which was where she put things she wasn't sure whether to include: *I do not know if they are*

confused. I do not know if they can be confused. But they are standing still and looking up and they are making sounds as if something they expected has not arrived.

She folded the paper and handed it to the runner.

Then she went back to watching.

At some point during her watching — she could not have said exactly when, because the light in the early morning was changing constantly in the way of pre-dawn transitioning to dawn, and the fog was shifting, and her attention had been on the alien ground team and not the sky — she became aware that the sky in the north had a quality it had not had earlier.

Not a brightness, not exactly. More the quality of something that was reflecting light that was coming from an unusual angle — the light of the risen sun hitting something at an altitude where the sun's angle was different from its angle at ground level. A shimmer in the upper air, in the north-northwest. Curved. Persistent. Moving slowly along a curve that was too large to complete in any timeframe she had the patience to watch for.

She looked at it for a while.

She did not write it down, because she did not have the vocabulary for it, and she did not want to write something down that was inaccurate. She simply looked at it, and looked at the ground team in the farmland who were also looking up, and thought about what she was looking at in the way that people thought about things they had no prior experience of, which was to catalog what it was not until what it was became more approachable.

It was not clouds. It was not a weather phenomenon of any kind she had seen.

It was not birds. It was not anything she had words for that flew.

It was light, at a great height, spread along a curve, and the curve was the curve of something that had been moving very fast in a very large arc. And the ground team in the farmland was looking at it with the same attention she was looking at it with, except their attention had the character she had come to associate

with attention that was making an inquiry and not receiving an answer.

She picked up her paper and wrote: *The northern sky has something in it that I can't describe. The ground team is looking at it. They have not moved.*

The satellite strike that hit the processing facility on the outskirts of Lakeheight's northern farmland occurred at seven minutes past the fourth mark, during what was known afterward as the second satellite firing sequence.

Randal's group was approximately four hundred and twenty meters to the east when it happened.

He had gotten everyone through the fence line. He had confirmed the head count — thirty-nine walking, three carried, forty-two total, the same number as had been in the racks that he could account for. He had distributed the three handheld energy devices he had taken from the locker to the three people he judged most likely to be able to use them if required: Willem, a woman named Cett who had been in the Lakeheight Guild's maintenance team and had the specific quality of someone whose hands knew tools, and a man from the tunnel staff whose name he had not yet gotten but who had woken up fast and organized two other people within minutes of regaining function.

They were moving southeast through the farmland, toward the edge of the cleared zone, toward the tree cover of the forest that ran along the eastern shore of the lake. He had told everyone: the forest, and then we stop and we assess.

He heard it before he saw it.

The sound was — he did not have a single word for it. It was several sounds very close together in time: a sound like air, a very large amount of air, moving rapidly; a sound that was below hearing in some frequencies and above it in others simultaneously; and a

sound that was light, which was not a way that sound worked and which was nonetheless the only accurate description — the specific sensory experience of something bright that also registered as loud, or loud in a way that the ears alone weren't sufficient for.

The light arrived at the same moment as the first sound, which was technically impossible given the relative speeds of light and sound over four hundred meters but was how he experienced it — the light and the sound arriving together because the light was part of the sound or the sound was part of the light or his brain had not been built to process the delay between them because nothing on this planet had ever given his brain a reason to practice.

He turned.

The processing facility — the prefabricated structure that the Horde had assembled in forty-eight hours from standardized components, that had been building for three days on the footprint of cleared and leveled farmland — was not there.

This was not a slow discovery. There was no fire to process, no debris settling. There was the specific quality of absence where a structure had been, and there was — elsewhere, moving away from where the structure had been — a rising column of material that was not smoke exactly, because smoke was something he had a frame for and this was different in texture and velocity and it was moving in a direction that smoke moved only when there was a great deal of upward force behind it.

The sound was still arriving, some of it, the lower frequencies taking longer to travel the distance.

He had dropped to one knee by reflex — the soldier's reflex, the intelligence-trained response to sudden large events, the reflex that said *smaller target until you understand what's happening* — and forty-two people had dropped with him, not because they had the same reflex but because when the person leading the group drops to one knee the people following the group drop too.

They were crouched in the farmland looking at where the processing facility had been.

No one said anything for a moment. The sound finished arriving. The column above the impact site was still rising, the upward velocity slower now, the material spreading at the top of the column into the specific shape that very fast vertical events produced when they met lateral air resistance at altitude.

Willem, who was behind and to Randal's right, said: "That was the satellites."

"Yes," Randal said.

"The Commander's plan."

"Part of it."

"That was where we were," Willem said. Not an accusation. The specific flat quality of someone making a factual observation that has significant personal implications.

"We were not there when that happened," Randal said. "We are here. That is the relevant fact." He looked at the column, which was thinning now, the material dispersing in the upper atmosphere. He noted: no secondary effects visible, no ground-level debris pattern that would endanger their position at this distance. He noted: the four hundred and twenty meters of farmland between them and the impact site. He noted: everyone still present, everyone still on the ground, no one down.

"Get up," he said. "We keep moving."

No one moved for another two seconds. He understood this — it was not disobedience, it was the specific temporary paralysis that came from having experienced something the nervous system needed a moment to file.

"There's a forest four hundred meters ahead," he said. "In the forest, we stop and we assess and we rest. That's what comes next. Get up."

They got up.

They moved.

He led them across the remaining farmland at a pace that was faster than their medical state strictly permitted but slower than the adrenaline would have produced if he had let it, because fast was

how people who needed to be carried became people who needed to be carried more. He watched the column above the impact site continue to thin and disperse. He watched the sky in the north, where the pre-dawn light was still catching the debris arc he had seen earlier at an angle that made it visible, the shimmer of two-century-old shuttle material on its way back down to the planet it had been built above.

He thought: Hollis built this well.

He thought: the yield was sufficient.

He thought: we were not in there when it happened, and Willem's observation was correct, and that distinction is the entire difference between everything and nothing, and it was not an accident.

He led forty-two people into the forest and stopped them there and did not say anything for a while, because the forest had the quality that forests had at pre-dawn in autumn — the specific quiet of a place that was being itself regardless of what was happening in the farmland to its west — and some things needed to be given that quality before they could be processed.

After a few minutes he said: "Is everyone here?"

They counted. They were all here.

"Sit," he said. "We're going to be in this forest for at least two hours while we sort out where we are and what's around us. Drink if you have water. Stay quiet. I'm going to try to reach Verdant."

He held the crystal and found the channel, and the signal was cleaner than it had been in the facility — the warmth of the interference was still present but reduced, the distance from whatever was causing it large enough now to make the transmission more legible.

Still here. Working. Go.

He sent the four words because they were the accurate version of a much longer message and he was, as he had always been, conservative about transmissions. Then he settled against a tree and thought about the plan he had developed in the dark of the rack, the plan for

the ramp, and how it had ended differently than he had planned it and how that was fine, and he waited.

The forty-minute window.

I tracked it from the interface, with the satellite imaging and Mongoose's communication intercept analysis, and it was exactly the window Hollis had predicted in the historical records he had compiled from the Alpha Centauri documentation: the time it took for a Horde ground team to exhaust its established communication protocols and begin the process of adapting to the absence of orbital coordination.

Forty minutes in which they tried everything they knew how to try and found none of it working, and then stopped trying and stood with their scanners pointed at the sky while the specific realization assembled itself in whatever cognitive architecture they used for realizing things.

It had a specific quality in the satellite imaging — the thermal signatures of four hundred and twelve individuals distributed across eighteen sites, all of them gradually shifting from the forward-facing orientation of active deployment to the upward-facing orientation of teams that have lost contact with their coordination infrastructure and are not sure what to do next.

I had not expected to feel something watching this. I had not been in the business of feeling things about the Horde — the work of the past three days had been conducted at the specific remove that the interface provided, the tones and overlays and countdowns that kept the operational data legible. But watching four hundred and twelve individuals arrive at the knowledge that they were stranded on a planet they had come to harvest, without support, without extraction, without the orbital capability that had been the foundation of everything they were doing — watching this happen across an

entire continent simultaneously, in the pre-dawn light, through satellite imaging that let me see the shape of it from above —

It had a quality.

Not triumph. I kept arriving at the same not-triumph. The word I kept not using.

What it was, I thought, was something like: the specific weight of a decision that has been made and has now executed its consequences fully. Hollis's decision. The decision I had confirmed and authorized. The weight of it was not lighter now that it had worked. It was different — heavier in some ways, because the abstract decision had become a concrete reality, which meant all the things that were true about the concrete reality were now mine to know — but not lighter.

I had authorized the launch. The launch had executed. The motherships were gone. The Horde teams on the ground were discovering this, in real time, forty minutes after the fact, in groups of four across eighteen sites on the eastern continent.

Four hundred and twelve of them, cut off.

Four hundred and twelve who would need to be dealt with in the days ahead, in the clearing operation that Randal was already thinking about from the forest edge.

I sat with this. Not long — there was work. But I sat with it for a moment.

Then I reached for Evan's channel.

"Evan," I said.

A pause of a few seconds — longer than usual, but Alabaster's operations had been stretched for four days and the response time reflected that. Then: "I'm here."

His voice had the quality it had had since Eva's channel went dark. The flatness that was maintaining itself. I had been around Evan long enough to know the difference between his ordinary steadiness — the groundedness that had been one of the things I relied on most — and the flatness that was steadiness under very specific strain. This was the second one.

"The motherships are gone," I said. "The satellite sequences have completed. The Horde ground teams on the continent are now without orbital support." I paused. "It's not over. But the shape of it has changed."

A moment of quiet on his end.

"How are things in Alabaster?" I asked.

"The warrens are full," he said. "The people are intact. The Tower is—" He stopped. Started again. "The Tower is running. The fog coverage was lower than we needed for some of the night. The Horde's collection continued into yesterday evening before the EMP." A pause. "We lost people, Taryn. From the inner ring. There was a window before the fog could cover them and the ground team was fast."

"How many?"

"Jovan's count puts it at sixty-three. From the inner ring and the south quarter." He said it the way you said numbers that were people. "Sixty-three we know of. There may be more whose tunnel routes weren't tracked."

I held sixty-three for a moment. Sixty-three from Alabaster, added to the other counts from the other sites that Mongoose had been assembling in its operational threads. The total that I would have to sit with, later, when the work permitted.

"Jovan," I said. "How is he?"

"Still on the rooftop," Evan said. "He's been there for three days. He's sending me transmissions about the ground team's behavior change." A pause. "He says to tell you: they stopped. All four of them. They've been standing in the street for thirty minutes pointing their scanners at the sky."

"I can see them," I said. "From the satellite. Across the whole continent."

A silence.

"It worked," Evan said. Not a question. Not triumph either. The specific quality of saying something true that is also something enormous.

"The plan worked," I said. "The next part is harder."

"Yes," he said. "Tell me what you need."

I told him. The priority in the next forty-eight hours: accounting. City by city, settlement by settlement — who was in the tunnels, who had been collected, who had made it into the forest perimeter. The Horde ground teams were directionless but not disarmed — they still had their handheld weapons, they still had training, and the specific combination of a well-trained force that has lost its coordination infrastructure was something that required careful management rather than assumption of neutrality.

Randal would handle most of that. Randal had already been thinking about it from inside a rack for eighteen hours. But Randal needed information — where the teams were, what their distribution looked like, what the populations coming out of the tunnels were walking into.

"The ansible hub," I said. "I need Misha to start coordinating the clearance reports as they come in. Every city, every warden. What we have and what we're missing." I paused. "And Evan — rest. I mean this. Whatever the Tower needs from you in the next four hours, it can get from someone else. Sleep."

A pause. "You're sixteen," he said.

"I know," I said.

"You've been awake for—"

"I know," I said. "You're going to say I should also sleep. You're correct. I'm going to spend two more hours assessing the ground situation across the network and then I'm going to sleep for four hours and then I'm going to come back and do the rest of it." I paused. "We should both sleep eventually. You should go first."

Something in the quality of the silence changed. "All right," he said. The weight in those two words was something I recognized — the specific heaviness of someone setting down something they have been carrying for days and accepting that setting it down is the right choice even though setting it down feels like abandoning it.

"I'll check in when I wake," I said.

"Yes," he said. "And Taryn—"

"I know," I said. "I know."

The things that didn't need to be said. Eva. The sixty-three. The plan that had worked and the cost at which it had worked. The specific shape of what came next and what it would require and the knowledge that we would do it.

I knew.

He closed the channel.

From the satellite, the Horde's ground teams began to move again at approximately the forty-third minute.

Not back to their operational pattern. Not toward tunnel entrances or residential blocks. They moved toward each other.

The clusters on the thermal imaging began contracting — not individual movement within a site but site-to-site movement, teams from the outer collection zones walking back toward the processing facilities, teams from the inner city collection areas moving toward the same convergence. Across the continent, the specific pattern of a distributed force without coordination performing what appeared to be its default response to the loss of coordination: consolidate.

They were grouping at the facilities.

I watched this and thought about what it meant for the clearance operations. Consolidation was not directionless — it was a specific tactical response. It was the response of trained individuals who, when they lose contact with command, follow their embedded protocols. Protocol said: when contact is lost, consolidate at the primary operational site and await reestablishment of contact.

Contact was not going to be reestablished.

But they did not know that yet.

They would know it by the time the debris in the orbital arc had completed its descent. They would know it when the communication protocols exhausted themselves and no new attempts produced

any different result. They would know it in the specific way that intelligence arrived when all the evidence pointed in the same direction and the last alternative had been tested and found empty.

I gave Mongoose the instruction: continue monitoring. Note when the consolidation completes, note when the communication attempts stop, note any change in the pattern that suggests a shift from waiting-for-contact to adapting-to-absence.

:Understood,: Mongoose said. :I am also noting: the debris from the motherships' destruction will begin entering the planet's atmosphere in approximately nine hours. Some fragments will burn completely. Some will reach the surface. I have calculated the likely impact distribution and flagged three sites that require monitoring. None are near populated areas.*

One additional note,: Mongoose said, after a brief pause. :Randal's crystal is transmitting from a position consistent with the eastern edge of Lakeheight's forest cover. He is stationary. The transmission indicates his group is intact and in the forest.

I received this. I sat with it.

Then I said: good. And I went back to the work.

In the forest east of Lakeheight's northern farmland, Randal was doing the thing he had always done in the aftermath of situations: accounting.

He had a list. He had been building it in his head since they entered the forest, adding names as he confirmed them, working through the forty-two in the order he had catalogued them in the rack. Willem: present, the worn quality of three days in a rack showing in how he held himself, but present and functional and already doing his own accounting of the people around him with the specific competence Randal had been relying on for fifteen years. Cett: present, sitting against a tree with her knees drawn up, the energy device still in her hands, looking at nothing in particular with

the thousand-yard-distance of someone processing. The man whose name he hadn't gotten: present, had gotten names from two of the three people he'd organized, was in the process of getting the third.

Thirty-seven others, in various states.

Five people who needed more care than the forest could provide. Not medical emergencies — nothing that would kill them in the next few hours — but the specific accumulated damage of three days of chemical paralysis and dehydration and the impacts of being carried out of a facility that had then been struck by an orbital weapons system while they were four hundred meters away from it. They needed warmth, water, and a surface more level than forest ground.

He needed to get to Lakeheight's tunnel system. The tunnel system connected to the Guild Hall, and the Guild Hall had the second-floor rooms and the supply stores and Danyel, who had gone underground four days ago and was presumably still there managing whatever was manageable from inside a tunnel system.

He needed to know the specific situation between this forest and the tunnel entrance.

He composed the transmission carefully. Misha would route it; Misha always routed things correctly, and he had been relying on that for three years. *Group of 42 at eastern forest edge, Lakeheight. Five requiring care. Need tunnel access coordinates and ground team status between here and Guild Hall. Also: what hit our facility?*

The last question was not operational. He added it anyway because he was, as he had always been, someone who wanted to understand what he was working in the context of.

The response came in under three minutes, which meant Misha had been watching for him.

Tunnel entrance L-7 is clear. Ground team status: four individuals last seen consolidating toward facility site — facility is no longer at that site. Safest route is the eastern path along the forest edge to the birch stand, then cross the road at the narrow point. Tunnel entrance is two hundred meters north of the road crossing.

A pause.

What hit your facility: plan worked. Orbital strike. Motherships are gone. You'll see the evidence if you look north and slightly up. Ground teams are consolidating but have lost orbital coordination. They don't know what to do next. That's the window. Use it.

Also: Danyel is underground at Guild Hall. She organized eighteen families into the deeper passages when the shallow tunnels reached capacity. She's been running the tunnel supply operation for four days. She's fine.

He read this twice. Then he sent back: *Noted. Moving.*

He put the crystal away and looked at the forty-two people around him. The morning was coming — the actual sunrise, not the pre-dawn shimmer, but the proper arrival of day, the forest beginning to separate from the dark around them as the light found its angles through the canopy.

"We're moving," he said. "Slowly. Forest edge to a road crossing, then two hundred meters to a tunnel entrance. We stay quiet until we're underground."

He looked at the five who needed help and organized the people who were most mobile to help them. He was aware that he was doing this without full authority — he was not the Guild Master of Lakeheight, he was not the city's administrative structure, he was a man who had planned things in the dark for three days and was now acting on those plans in the growing light, and the forty-two people around him were following because someone had to go first and he was the person who had gone first.

This had always been, he thought, the actual definition of leadership in difficult circumstances. Not authority granted by a structure. The willingness to go first.

"Let's go," he said.

They went.

The debris from the motherships began its atmospheric entry nine hours later, as Mongoose had calculated.

Most of it burned. The smaller fragments — the structural material that had been at the periphery of the detonation, the lighter components — entered the upper atmosphere on their uncontrolled trajectories and encountered the specific physics of atmospheric friction at orbital velocity, which was the physics of very rapid heat generation. Streaks of light across the afternoon sky, visible from the ground as a specific phenomenon that no human on this planet had ever seen before and that had no human name.

In Alabaster, Jovan watched from his rooftop.

He had finally come down from the Chandler's building — had been told to, firmly, by the Servant who brought him food at the sixth mark and who had said: *you can watch from street level, the Horde's team is not doing anything, you need to not be on a roof anymore*. He had come down and had been given food and had sat in a courtyard while the morning finished becoming itself, and he had been watching the sky.

He had the specific quality of someone who had been watching for three days and could not stop watching, the attention having become habitual.

The streaks, when they came, were brief and bright and multiple — not all at once, but over the course of several minutes as the debris field's leading edge encountered the atmosphere in sequence. He counted seven visible from the courtyard's angle before they were done. Each one was a short line of brightness across the afternoon sky, lasting two or three seconds, the light the specific quality of something that was burning against the physics of existing.

He sat in the courtyard and watched seven streaks of light and thought about what they were.

He had known, from Misha's transmissions, that the plan had worked. He had known the motherships were gone. He had known it in the abstract sense that knowing things through a relay gave you —

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information processed through language, arriving in the mind as a fact.

The streaks of light in the sky were not abstract. They were what *gone* looked like when it was real.

He sat in the courtyard for a long time.

Then he went to write his first report since the crisis had changed shape: not a transmission about the ground team's behavior, not a notation about the scanner angles. A full written account, in the careful longhand he used for things that required care, of what he had seen over the past four days from the rooftops of Alabaster's outer ring, so that whoever needed to know would know.

He wrote for two hours.

He was a Servant of Alabaster's Tower, which meant he was a person who kept records. Some records needed to be kept even when the keeping was difficult. Especially when the keeping was difficult. This was one of those records.

He wrote until it was done.

17

S₃ CROSSED the coast at seventeen thousand feet.

I was watching through the satellite imaging when it reached the continental margin — the specific quality of high-altitude flight rendered in the thermal sensors as a point of elevated temperature moving at several hundred kilometers per hour, the shuttle's engines burning at the efficiency Hollis had calculated across the performance data of systems that had been in storage for two hundred years and had woken up eighteen hours ago ready to fly.

The first pass was over the cluster of Horde shuttles grounded in the farmland northeast of Cupritesh.

I had been briefed, by Hollis's document and by Mongoose's calculations, on what the EMP generator would do at close range: a pulse of electromagnetic radiation of sufficient magnitude to destroy or severely damage any unshielded electronics within its effective radius. The Horde's shuttles, which had never needed to be shielded against electromagnetic pulse because they had never encountered a civilization capable of producing one, would lose their navigation systems, their communication systems, their propulsion manage-

ment, and their life-support control circuits in the fraction of a second the pulse took to propagate.

Hollis had not described what it would look like from the satellite.

I did not have an adequate description for it afterward either, not really, because the satellite's imaging was not built for phenomena at this scale and speed. What I saw was: the shuttle, moving fast, at an altitude I could estimate from the sensor readings; a change in the electromagnetic signature of the area below it, a bloom of interference in the frequency ranges the satellite was monitoring; and then, in the thermal imaging, a change in the heat signatures of seven grounded shuttles on the farmland below.

The grounded shuttles went from operating temperature to cooling temperature in less than two seconds.

They had been running on minimal power — holding their systems at the idle state of a ship that has discharged its immediate function and is waiting for the next instruction. Now they were not running at all. The electronics that had been warm with the passive operation of systems doing nothing actively but ready to do something on command were, within two seconds of the pulse, quiet.

In the farmland below, seven alien shuttles full of humans who had not been able to move for three days became seven very dark and very still containers holding people who were beginning to be able to move.

I held this fact in the part of my mind that was not managing three other operational threads, and I kept working.

S3 flight status, Mongoose said. First pass complete. Navigation systems showing primary guidance degradation consistent with Hollis's projections. Secondary navigation online. Correcting for pass two heading.

Good, I said. What's the correction margin?

Approximately three kilometers. The generator's secondary navigation was designed to compensate for this. Pass two should be within acceptable parameters.

The three kilometers was meaningful. Hollis had designed the flight path with the generator cluster locations estimated from the pre-mission intelligence on the Horde's operational patterns. The actual landing sites had not been exactly where the intelligence suggested they might be — Tremayne's targeted preparation had put them in specific places that differed slightly from the historical average. Mongoose had recalculated the flight path before launch and had given S₃ the corrected coordinates. The question was how much of that correction the navigation system could hold after the first firing.

Secondary navigation was holding so far.

I turned my attention to the second cluster.

In the city of Khaneth, a woman named Beru was lying in the root cellar of her family's farmhouse when the sky went quiet.

She had been in the root cellar for four days, with her husband and three children and her husband's elderly mother, seven people in a space designed to hold a season's worth of root vegetables and was currently holding considerably less of those and considerably more of them. The cellar had one small ventilation gap at ground level, covered in the normal seasons by a loose board that they had wedged firmly shut four days ago when the sound of the alien shuttle descending over the eastern farmland had sent everyone underground.

They had heard everything through the board and the earth above them. The sounds of the shuttle landing. The sounds that she did not have words for and had spent four days not thinking about directly — the sounds that meant the thing she had been told was coming was here. The click-slurp voices, audible even through the earth when the ground team had passed close. The specific silence that followed collection, which was different from ordinary silence in a way she could feel but not describe.

They had been fed by the children's ability to move the board quietly at night and retrieve what was in the cold pantry — bread and cheese and the dried fruit she had put up in the autumn, a small miracle of advance preparation that nobody had planned for this specific situation but that had been there when it was needed.

On the fourth day, in the late morning, she heard the shuttle.

Not the Horde's shuttle — she knew that sound now, had mapped it against the four days of learning what alien machinery sounded like, and this was different. This was a different kind of engine, different in pitch and rhythm, moving faster than the Horde's shuttles moved, and it was coming from the north and heading south and it was moving at an altitude that put it — she calculated by sound — much higher than the Horde's shuttles had been when they landed.

It passed overhead.

And then everything went quiet in a way that the past four days had not been quiet — not the relative quiet of nobody outside the cellar, but the quiet of something that had been making sound stopping. She had not known, until it stopped, that the Horde's shuttle had been making a constant low hum, a systems-operational sound so low and continuous that she had habituated to it and stopped hearing it consciously. Now it stopped and the absence was so loud she sat up.

"What was that," her husband said, from the dark.

"Something changed," she said.

She pressed her ear against the board.

The click-slurping sounds of the alien voices, which had been an occasional presence over the past four days, were absent. The ambient hum of the shuttle was absent. The farmland outside the root cellar was making the sounds it had always made — wind through the stalks of the winter wheat that hadn't been harvested because of everything that had happened — and nothing else.

She listened for a long time.

Then she said to her husband: "I'm going to open the board."

S₃'s second pass covered the farmland cluster south of Amethyia.

The navigation correction had held. The pulse radius was within Hollis's calculated parameters, covering eight shuttles in the primary cluster and a ninth at the edge of the effective range that showed partial disruption rather than full disabling — enough to knock out the propulsion and navigation systems, not enough to fully disable the life support. Mongoose noted this and adjusted the third pass's approach angle to ensure better coverage of the outlier.

The third pass was the one that lost its primary guidance entirely.

I felt Mongoose respond to this before the notification arrived in my awareness: the specific quality of a calculation being rerun faster than the standard monitoring cycle, the installation's processing shifting resources to an urgent assessment. *Primary navigation failure, S₃, post-pass-three. Secondary navigation engaging. Calculating correction for pass four. Pass four heading will deviate seven kilometers from planned flight path.*

Seven kilometers. The cluster for pass four was in the area south of the Midland settlements, the farmland where the Horde had established two processing facilities within twenty kilometers of each other. Seven kilometers was the difference between hitting the center of the cluster and hitting the edge of it — still covering both facilities, still within EMP range, but with reduced effectiveness at the northern facility's outlying shuttles.

Can you correct further? I asked.

S₃ has burn authority for heading corrections up to twelve degrees lateral. A seven-kilometer correction requires a four-degree heading change. Within parameters, but consuming burn fuel. Pass five will have reduced correction capability as a result.

Use it, I said. Cover the cluster.

Confirmed. Initiating correction burn.

I was aware, holding this operational conversation with

Mongoose while simultaneously managing the crystal network updates from the clearance teams and the relay traffic from the emerging populations and the satellite monitoring of the Horde's ground teams, that S₃'s flight was not a metaphor for anything. It was an old machine doing what it had been built to do, as well as it could do it, degrading with each use in the way Hollis had predicted and been unable to prevent. There was nothing symbolic about it. It was an engineering problem being solved by the engineering solution that had been prepared for it, executing with the imperfect fidelity of all real-world systems.

I was also aware that Hollis had loaded this machine. Had bolted the generator into its equipment bay with his own hands. Had spent eleven days transferring fuel from the donor shuttles through lines he had installed himself and had watched with the attention of someone who understood that attention was the difference between a connection that held and a connection that failed. The specific, unglamorous, essential work.

The machine was doing what he had asked it to do.

Pass four hit the cluster.



By the fifth pass, the fog was gone from most of the southern continent.

This was the EMP's necessary cost, the one Hollis had documented and that I had read and accepted and was now experiencing as fact rather than as document. The fog machines in the areas covered by S₃'s passes were electronics. They ran on the same class of systems that the Horde's shuttles ran on — different design, different construction, but fundamentally systems of the same kind, vulnerable to the same pulse. When the generator fired, the fog machines in range went down.

Station by station, as S₃'s path crossed the southern continent, the fog machines stopped.

The satellite imaging showed this more clearly than anything else, because fog was visible from orbit and its absence was visible too: the cloud cover that Calla had held and I had held, that forty-two operators had spent three days maintaining, was clearing in the wake of S3's path like a curtain being drawn back. Not all at once. In sequence. The southwest cluster gone first, then the southern midlands, then the coastal regions, the clear autumn air of the southern continent replacing the managed weather as each machine lost power.

With the fog clearing, the satellites could see.

And with the satellites able to see, the attack sequence re-engaged.

I watched the satellite network — still in its seventy-two hour standby from the earlier sequences — receive the changed targeting picture and note: possible new acquisition. Mongoose, who was monitoring both the EMP shuttle's path and the satellite network's status, flagged this immediately: *Commander. Satellite network is beginning preliminary target assessment in areas where fog cover has been cleared by the EMP. The network is still in standby — recharge cycle requires sixty hours minimum before firing capacity is restored. But when it comes back online, these areas will be in its targeting solution.*

How many shuttles? I asked.

Eighteen in the southern region that have been EMP-disabled and are now visible. They contain people, Taryn. The numbers are uncertain — some facilities may have completed processing and the shuttles may have been partially unloaded. But the population in the southern shuttle cluster is estimated at between two hundred and four hundred people.

Sixty hours.

The satellites couldn't fire for sixty hours. In sixty hours the clearance teams would have reached those shuttles. The crystal network was becoming usable again as the Horde's equipment went dark, and the Guild communicators in the southern region were

beginning to coordinate with the populations emerging from the tunnels, and Randal's clearance operation — which he had started designing in a rack eighteen hours ago — was going to need the southern region's Guild posts to be part of it.

Sixty hours was enough.

I filed this under *active monitoring required, not immediate action* and returned to S₃'s sixth pass.

The sixth pass covered the area above the southern coastal city of Southmarch.

I want to describe what I knew about Southmarch before I describe what happened.

Southmarch was a city of approximately eight thousand people, situated on the southern coast where the river delta met the Inland Sea. It had been settled four generations ago, in the expansion period after the governance compact, when the southern coastal regions were opened to migration from the more densely populated interior. It had the specific character of a young city — less history in its buildings, less accumulated institutional memory, more of the rough-edged energy of a population that had arrived in a place and was in the process of figuring out what they were making. It had a good harbor. It had an active fishing fleet. It had a market that served the surrounding coastal settlements.

It also had, beneath it, the largest natural cavern system in the southern region.

The cavern system was documented in the installation's geological records — I had seen the reference in the survey data when I was reviewing the southern region's tunnel inventory in the first week of the crisis. The caverns were extensive, running two hundred feet below the city's streets, connected to the surface by three natural passages and four human-excavated tunnels. The city's tunnel wardens had used them as the primary shelter for Southmarch's

population in the first hours of the invasion. Eight thousand people, mostly. Some gaps — the elderly who couldn't make the descent, some outlying settlements who hadn't been reached in time — but most of the city's population was underground.

The Horde's processing facility was on the city's northern farmland, a kilometer from the city proper.

When S₃ fired its sixth pass over the southern coastal region, the EMP disabled the Horde's shuttles at the processing facility. It also disabled the processing facility's own power systems, which had been running on a backup that the initial EMP had not fully reached. The disabling of the backup power cascaded through the facility's structural support systems — temporary systems, installed rapidly, not designed for the specific load they were carrying.

Mongoose had the geological data for most of the continent. Tremayne had had the full geological data for the continent, including the deep tectonic survey that Hollis had commissioned and that had been running since the terraforming program's first decades. But Tremayne was no longer functioning in the active sense — it had been pushed to the margins of the network by the interventions of the past months, its active processing reduced, its access to its own surveys interrupted by the infrastructure changes. The full tectonic data had not been forwarded to Mongoose's operational records. Mongoose had the survey data from the active network. It did not have the depth profile below Southmarch's northern farmland.

It did not know that the cavern system below the city extended, in its deepest reaches, directly beneath the processing facility's construction site.

It did not know that the facility's foundation — driven piles sunk twenty feet into what the rapid survey had identified as stable ground — had been driven through the ceiling of the cavern system's largest chamber.

It did not know that the structural collapse of the processing facility, when the EMP disabled its supports, would transfer its load to the cavern ceiling.

It did not know any of this because Tremayne knew it and Tremayne was not there to tell it.

The satellite feed showed me a city.

Then it showed me a plume.

Not explosion — the facility's collapse was not an explosion, it was a structural failure that sent material downward rather than outward, and the sound of it was different from the satellite strike I had watched at four hundred meters from Randal's position, different in character if not in scale. But the result in the satellite imaging was a plume of displaced material — earth and concrete and the compressed air forced upward by the sudden pressure change of eight thousand cubic meters of cavern ceiling deciding, all at once, that it was no longer a ceiling.

The city above the cavern system ceased to exist as a city.

I want to be precise about this, because precision is what the record requires. The buildings did not all fall. The streets on the city's south side, where the cavern system was shallow and the construction was on bedrock, were largely intact. The market, the harbor, the fishing quarter along the eastern waterfront — these were standing when the satellite feed resolved after the plume.

The rest of Southmarch fell into the ground.

The specific geometry of a city collapsing into the cavern system beneath it was something the satellite imaging had not been designed to document and that the imaging was nonetheless documenting, in the way that systems designed for one purpose often found uses for in adjacent purposes because reality did not organize itself according to design specifications. What I was looking at was a city-shaped absence where a city had been, the surface having dropped into the volume below it, the cavern's former ceiling now the bottom of a crater that was roughly the size and shape of what Southmarch's inner districts had occupied.

The plume was still rising.

I was managing, at the moment the feed showed me this, four other operational threads: the relay coordination for the northern clearance teams; a conversation with Misha about the hub's message prioritization; Mongoose's report on S₃'s sixth pass status; and the crystal network's southern channel, where two Guild communicators from Southmarch's southern quarter had been sending updates about the population's tunnel status.

The crystal network's southern channel went dark.

Both communicators, simultaneously. The signal was there and then it was not, in the way that signals cut off when the person carrying the crystal was no longer —

I held the four operational threads and looked at the satellite feed showing the plume above where Southmarch had been.

I did not stop managing the threads. The threads required management. The clearance teams in the north needed the coordination. Misha needed the hub decision. Mongoose needed the flight status confirmation for S₃'s seventh pass. The crystal network's remaining southern communicators — there were three more, in the outer settlements that had not been in the collapse zone — needed their routing.

I managed the threads.

And I held, in the part of my awareness that was not managing threads, the satellite feed showing the plume dispersing above what had been Southmarch.

The plume took seven minutes to fully disperse.

During those seven minutes I completed the hub decision, confirmed S₃'s approach heading, coordinated three teams in the northern clearance operation, and received two reports from the outer southern settlements about tunnel populations preparing to emerge.

When the plume dispersed, what the satellite showed was the crater. Just the crater, and around it, intact, the southern quarter of a city that had been on its southern edge and had therefore been on

solid ground. The harbor. The fishing quarter. The market. Perhaps two thousand people in the southern tunnels who had been shallow enough, and far enough from the collapse zone, to be alive.

Six thousand people, approximately, had been in the cavern system beneath the northern and central districts when the ceiling came down.

I looked at this number in the satellite data and I went on.

S₃'s seventh pass was its last.

Mongoose had been compensating for navigation degradation across six passes, and the accumulated corrections had consumed more burn fuel than Hollis's margins had been designed to hold against, and by the seventh pass the secondary guidance was operating at somewhere below thirty percent of its original capacity. Mongoose sent me the assessment: *Pass seven must be completed at maximum direct approach. No correction capability remaining. The southern processing center is the final target. Impact trajectory: direct.*

Not passing over. Impacting.

What remained of S₃'s guidance system could get the shuttle to the southern processing center's vicinity. It could not guarantee a precision overpass at minimum altitude. What it could guarantee, with the fuel remaining and the heading set, was arrival at the target location in the specific way that a guided object with degraded guidance arrived at things: on the correct heading, at the correct speed, at an altitude that was going to intersect with the ground at approximately the target coordinates.

Mongoose was informing me that S₃ was going to crash.

Into the southern processing center.

The explosive potential of the remaining fuel, combined with the generator's residual charge, is sufficient to disable the three alien shuttles at the southern processing facility, Mongoose said. The crash is consistent with Hollis's document's description of S₄'s likely condi-

tion. He anticipated that one of the EMP platforms might not survive the full mission. The design accommodates this.

He designed it to be expendable after the work was done, I said.

He designed it to complete the work even if it could not return, Mongoose said. That is the same thing stated differently.

I held S₃'s approach track in the satellite imaging and watched it descend.

It was slower than the previous passes, burning what remained of the fuel to maintain the approach angle rather than to sustain altitude. The thermal signature was different from an operational shuttle — less uniform, the engine output showing the specific character of a system running past its designed parameters, giving everything that was left.

Two centuries in a cavern. Hollis loading it. The fuel lines running through the dark, the coupling checked six times, the hardened electronics installed with the specific care of someone doing something that needed to last. All of it for this: seven passes across a continent, six clean, one final.

The satellite imaging showed the impact at fourteen seconds past the hour.

Not an explosion, exactly — or not only an explosion. The generator's discharge and the fuel's ignition combined in the specific way that two large energy releases in proximity combined, which was to say unpredictably and at significant scale. The thermal bloom in the satellite imaging was large enough that the sensor saturated for eleven seconds before recovering, and when it recovered, the southern processing facility's footprint on the northern farmland below Southmarch's surviving quarter was no longer a footprint.

Three alien shuttles, disabled and destroyed.

S₃, gone.

Hollis's machine had done what Hollis had built it to do and had not come back, which he had also designed it for.

I received this in the operational monitoring thread and filed it and moved on to the next thing.

The next thing was everything else.

I am aware that this is not an adequate description of the hours that followed S₃'s final pass. But the hours that followed were what they were, which was: the clearance teams beginning their work across the northern and central regions; the populations emerging from tunnels in city after city across the eastern continent; the ansible hub beginning the sorting process for the accumulated message traffic of four days; Randal moving his group from the forest edge to Lakeheight's Guild Hall through a route that avoided the three remaining Horde crew members now consolidated at the ruins of the northern processing facility; and Misha's relay operating at the tempo of something that had been holding more messages than it had been designed to hold for four days and was now delivering them in careful order of priority.

And Southmarch.

Southmarch was in all of it. Not as a thread requiring management — there was nothing to manage there, not immediately, because management required something to act on and what remained of Southmarch was not yet a thing that could be acted upon. The collapse was complete. The casualty count was not yet a count, it was an estimate, and the estimate was in the thousands. The southern quarter was intact and the people there were beginning to emerge from their tunnels into a city that was missing its northern half. Whatever they found was not something I could manage from the interface room in Verdant.

It was in all of it because it was in me. That is the accurate statement. The satellite feed showing the crater was something I had looked at for seven minutes while managing four operational threads, and the seven minutes were enough for the image to be in the architecture of everything else I was doing, present without being processed, waiting for the moment when there was space to process it.

There was not space yet.

I worked.

I am asking you to understand what it means to keep working when Southmarch is in the architecture and there is no space for it. It means the work continues and the thing that cannot yet be felt is held, precisely, in the holding pattern that the body and mind construct for the things that are too large for the current moment. Not suppressed — held. The distinction is important. Suppressed things break through unexpectedly. Held things are known to be held. You know where they are. You know you will come back to them when there is space.

There was not space yet.

There would be space. The work would end, eventually, or at least reduce to a level that allowed space. Southmarch would be there when the space arrived, exactly as large as it needed to be, not diminished by the holding.

I worked.



Misha came to the interface room at the eighth mark.

She set a bowl on the table and did not say anything about it, which was the correct choice — saying something about it would have introduced a conversation about whether I was going to eat it, and the answer to that conversation was already determined and did not require the conversation. I ate the bowl while conducting the evening relay coordination, hands off the pads for the time the eating took, hands back on after.

"Southmarch," she said, after the bowl was done.

"Yes," I said.

"The final count will take days," she said. "The southern quarter is doing a census of who made it out. The tunnel wardens there are alive. The communicators in the outer settlements are alive." A

pause. "Jovan's estimate, from the Alabaster archive data, is between five and six thousand in the collapse zone."

Five to six thousand people.

I received the number. I did not let myself perform a response to the number, because performing a response to a number was the wrong relationship to have with the people the number represented. Five to six thousand people were not a number. They had been people. They had been in their tunnels because the wardens had been briefed and the wardens had done their jobs, and they had been in the right tunnels and the wrong tunnels were the ones that turned out to be beneath the wrong ground.

It was not anyone's fault in the sense of having been preventable by a decision someone could have made differently. Mongoose did not have the tectonic data because Tremayne was not functioning and Tremayne had the tectonic data. Tremayne was not functioning because I had pushed it to the margins of the network over the past months, for good reasons, in response to a real threat. The fault line was not in any record accessible to the people who were planning the EMP deployment. Hollis had not known it was there.

None of this made the five to six thousand people anything other than five to six thousand people.

"I know," I said. Which was not an adequate response and was the only one I had.

Misha was quiet.

"The southern clearance team," I said, "needs to prioritize the outer settlements' tunnel populations before they move toward the collapse zone. The collapse zone is going to be days of work. The outer settlements have people who can be helped now."

"I'll tell the relay coordinator," she said.

"And the southern quarter's tunnel wardens — they're going to be trying to account for people who were in the collapsed sections. That accounting needs to be centralized through the hub. Every name that comes in goes to the hub's Southmarch record. We're going to need a complete account."

"Yes," she said. She was writing.

"Someone needs to go there," I said. "Eventually. In person. The city council — what remains of it — is going to need a face that isn't a relay message." I paused. "That can't be me yet. But soon."

"I know," she said. "I'll flag it."

I put my hands back on the pads. The network was running at the sustainable evening register, the operators standing down in rotation, the fog stations dark across most of the continent but the crystal relay strengthening as the Horde's equipment went offline site by site.

In the satellite imaging, the crater above the former northern districts of Southmarch was a specific shape in the coastal geography, visible from orbit, the kind of mark that persisted on a landscape indefinitely because the ground did not forget what had been done to it.

I looked at it once more.

Then I went back to the work, because the work was what there was.

18

THE FIRST TUNNEL populations to emerge did so at dawn on the fourth day.

I was watching through the satellite imaging when they came up — not from Verdant's tunnels, which had begun their cautious exit the previous evening once the Horde ground team's consolidation at the facility ruins was confirmed, but from the smaller settlement of Khaneth, fifteen kilometers north of Verdant, where the tunnel warden had been monitoring the Horde team's position through two communicators who had stayed above ground in the forest. When the team consolidated north, the warden had made the call: the approach is clear, begin exit procedures.

The satellite's thermal imaging showed it as a bloom of elevated temperature signatures at a single point, spreading outward as people came up through the tunnel entrance into the morning. A hundred and forty-three individuals, by the satellite's count. A hundred and forty-three people who had been underground for four days, coming out into the specific quality of early autumn air after four days of rock and earth and close-breathed dark.

I had been underground once, briefly, in Alabaster's warrens — a

working inspection, early in the crisis preparation, to verify the shelter inventory against the tunnel wardens' reports. I remembered the quality of the air when you came back up: the cold of it, the specific sharpness of air that had weather in it rather than the still breathing-air of a sealed space. The way the light arrived differently after dark. Your eyes remembered light but your skin remembered what outdoor light actually did to it, and the re-encounter with it was more physical than you expected.

I thought about that as I watched a hundred and forty-three people emerge from the earth into the morning of a world they had not seen for four days.

Commander, Mongoose said. The Khaneth population is the first confirmed surface emergence on the continental network. I am beginning the formal count.

Begin, I said.

The formal count was what Mongoose called the specific accounting procedure it ran at the completion of a planetary-scale crisis event. I learned this from the phrasing — the formal count — which implied that Mongoose had a category for this kind of thing, which implied it had done this before, which implied it had been built to do this, which meant Hollis had known this was part of what it would need to do.

Hollis had known a great deal.

The formal count gathered information from every monitoring source available to the network — satellite imaging, crystal transmissions, ansible relay reports, the tunnel wardens' emerging population data — and assembled it into a complete accounting. Complete in the sense of best-available: not every number was confirmed, some were estimated, the ranges had margins. But the structure was complete. Every category of the crisis's impact had a number or a range

assigned to it, and the assignment was as precise as the available information permitted.

Mongoose ran it through the morning while I managed the clearance coordination and the relay routing and the steady flow of emerging populations' reports from across the network. The count was not instantaneous — it required correlating data from dozens of sources, verifying reports against satellite observations, making the specific judgment calls that arose when one source said a number and another source implied a different one.

While it ran, I worked.

The work of Day Four was quieter than the work of Days One through Three in volume and more complex in kind. On Days One through Three the work had been the work of crisis: clear, directed, the next action always visible even when the resources to perform it were uncertain. On Day Four the work was the work of aftermath: the shape of what was needed was not always clear, the direction was multiple rather than single, the resources were unclear in a different way — not insufficient but disorganized, requiring someone to figure out what each piece of the broken landscape needed before figuring out who could provide it.

The Horde's ground teams were consolidated. Mongoose's satellite monitoring showed them stationary at nineteen sites across the eastern continent — the processing facility ruins, mostly, where the prefabricated structures had been and where the debris of the facilities now was. Four hundred and nine individuals, by Mongoose's count: the original deployment minus those who had been in facilities when the satellite strikes hit, minus those who had been in S3's crash zone, minus the handful that Randal's group and similar emerging populations had encountered and neutralized in the night.

Four hundred and nine individuals with handheld weapons and field equipment and whatever operational stores had survived the EMP, consolidated into groups that ranged from thirty to sixty people at each site, waiting.

This was the word that kept arriving in my thinking: waiting.

The Horde's ground teams were waiting. Not the purposeful waiting of a survey or a collection operation — the waiting of something that has completed its operational context and is in the absence of the next instruction. They had been waiting since the forty-minute window since the orbital communication had stopped. They were still waiting. It had been nearly two full days.

I had not expected patience on this timescale.

I had expected — I realized I had expected — that the loss of orbital coordination would produce some behavioral change other than waiting. Retreat, or escalation, or some kind of active response to the changed situation. What I was seeing in the satellite imaging was none of those things. Consolidated positions, maintained security perimeters around those positions, and waiting.

Mongoose's assessment, when I asked: *The Horde's operational doctrine, as inferred from the Alpha Centauri and Kobold records, does not appear to include a contingency for the loss of the mother-ships. The consolidation behavior is the embedded default when communication is interrupted — return to primary operational site and await reestablishment of contact. They are following their protocol. Their protocol does not have a next step for this situation.*

They had never been in this situation before, I said.

Correct, Mongoose said. No human colony has ever successfully resisted. Their protocol was designed against the assumption of eventual success. It has no provision for the possibility that success will not arrive.

I held the satellite imaging and watched four hundred and nine individuals sitting in the ruins of their own facilities, waiting for something that was not going to come.

There was something in this observation that I wanted to name and could not. It was not triumph and it was not pity — I had established in the previous chapter that it was not triumph, and pity was not quite right either, because pity required a common frame of vulnerability that I was not certain the Horde and I shared. It was more like — the specific quality of watching something that was

designed for a world that no longer existed trying to apply its design to a world it no longer fit.

I filed this and moved on.

Randal reached the Guild Hall at the second mark of the morning.

Misha relayed the confirmation: *R at L-GH. 42 confirmed. Medical priority: 5 critical, 12 moderate. D present. Hall operational.*

D was Danyel. The Hall was operational. Misha's relay shorthand, which she had developed over three years of running information at volume, was doing its work: maximum information in minimum characters, the specific economy of someone who understood that the person receiving a relay in a crisis was not reading for nuance.

I sent back: *Confirmed. What does he need?*

The response took four minutes, which meant Randal was composing it himself rather than relaying through Misha — she would have been faster.

Healer: priority. Supply resupply: water, food, blankets, basic medical kit. Assessment of 4 remaining Horde in northern zone before any movement toward facility ruins. Status of outer tunnel populations: need count. Danyel says the inner tunnel population is intact but the food stores ran out at the forty-third hour. We've been rationing since then.

He was in the Guild Hall and the first thing he sent me was what he needed and what he had and what the priorities were in sequence. This was Randal at his baseline: operational before personal, assessment before request, the fifteen years showing in how he organized information even after four days in a rack.

I sent the healer request through the southern channel — Wren, Verdant's senior healer, who had already moved medical supplies to the tunnel storage in the first week of the crisis and was now running

the southern network's medical coordination. She would route to Lakeheight or identify what was already there.

I sent the food and supply request to Sera's logistics network, which had been operating at reduced capacity during the crisis but had never stopped, Sera being constitutionally incapable of letting a logistics network stop. She would have something moving within an hour.

The four remaining Horde in Lakeheight's northern zone I tagged for Mongoose to monitor — they were in the satellite imaging, part of the consolidated group at the former processing facility's ruins, and their behavioral pattern was consistent with the waiting pattern I had observed everywhere else. Not an immediate threat. A thing to be addressed in the clearance operation.

Tell him: healer and supplies within two hours. Four northern Horde are consolidated at facility ruins, behavioral status: waiting, not advancing. Clearance team will reach him within twenty-four hours.

I paused.

Then I sent: *Tell him to eat something. And sleep if he can.*

The response came back in three minutes: *He says: noted. He also says he slept in the rack for eighteen hours, which counts.*

I sent back: *It does not count.*

Misha's reply was a single character that was not part of any standard relay notation but that I had learned, over six months, was her equivalent of quiet amusement expressed at minimum transmission cost.

I want to describe what the Guild Hall in Lakeheight looked like on the morning of the fourth day, because the sensory record of that place at that moment matters in the way that specific sensory records of specific moments matter, and because nobody who was there was writing it down and the record would otherwise be lost.

I have it from what Randal told me later, and from Misha's relay

fragments, and from the account that the Guild Hall's senior trainee — a young man named Pell, nineteen years old, who had been running the internal operations since the crisis began and who was, afterward, one of the people I specifically asked to write things down — produced in the weeks following.

The Guild Hall had four rooms on the second floor of a building on the western bank of the lake. After four days as the operational hub of an underground population of fourteen hundred people, it looked like a building that had been used very hard: the hallways stacked with empty supply crates and full ones, the second-floor corridor lined with sleeping rolls that were now mostly empty because the sleeping population was waking up and beginning to emerge, the central room's table covered in relay paper and message copies and the accumulated documentation of four days of tunnel population management.

It smelled of too many people in a closed space, which is the specific smell of humanity under pressure: woodsmoke and bodies and the food that had been prepared and eaten in insufficient quantities for four days and the particular quality of anxiety sustained over time, which does have a smell though it is difficult to describe.

Danyel had been running it since the moment she went underground. This was in her nature — Randal had said, at some point in the Verdant meeting, that Danyel in a crisis was Danyel at her best, and what he meant by that was that she had the specific capacity to organize the immediate environment into something functional regardless of what the environment's original purpose had been, to look at fourteen hundred people in a tunnel system and see the logistics problem it represented and solve it. She had solved it. Fourteen hundred people had been fed and watered and managed for four days in a space designed for none of those purposes, and the Guild Hall above ground had been the administrative hub of that management, and Danyel had been at the center of it.

When Randal walked through the Guild Hall's door with forty-two people who had been in racks for three days, he found her at the

central table with two relay operators and a stack of message copies that needed sorting.

She looked up.

He looked back.

The moment between them was, by Pell's account, brief — ten seconds, maybe fifteen, the specific quality of two people who had worked alongside each other for fifteen years and had learned to conduct entire conversations in the spaces between words. Then Danyel set down the message copies and said: "I need headcount and medical priority before anything else."

"Forty-two," Randal said. "Five critical, twelve moderate."

"I'll get Yenne," she said. Yenne was the medically-trained member of the tunnel population who had been doing the tunnel community's emergency medical work for four days. "Give me the five critical first."

"Willem needs priority," Randal said.

She was already moving toward the door.

"Danyel," he said.

She stopped.

"The facility," he said. "The satellite—"

"I know," she said. "Pell told me when it happened." A pause. "Were you still inside?"

"No," he said. "We were in the forest."

She looked at him for a moment. Then: "Good," she said. And she went to find Yenne.

Pell's account notes that the exchange was over in under a minute and that both of them went immediately back to work, and that this was, he thought, the most Randal-and-Danyel thing he had ever witnessed.



The formal count arrived at the third mark.

Mongoose presented it the way it presented things: in the nota-

tion it had developed over two hundred years of managing planetary operations, which was precise, sequential, and did not editorialize. The numbers were the numbers. What the numbers meant was something for the person receiving them to determine.

FORMAL COUNT: CRISIS PERIOD — INVASION

HORDE OPERATIONAL ASSETS: Shuttles deployed: 24. Shuttles disabled by EMP: 21. Shuttles destroyed by satellite: 3 (of which S₃ impact: 1). Motherships: 2 deployed, 2 destroyed.

HORDE PERSONNEL: Original ground deployment: approximately 470. Current active: 409. Estimated losses: 61, principally satellite strikes on facility concentrations and S₃ impact. Current status: consolidated at 19 sites, no orbital coordination, no extraction capability.

HUMAN POPULATION — CRISIS PERIOD: Population placed in shelter: estimated 97,000 across eastern continental network. Population collected by Horde before EMP: estimated 2,400-2,800. Population returned to surface via facility access after EMP: estimated 1,900-2,100. Population in facilities at time of satellite strikes on facilities: estimated 200-350. Population in facilities at time of S₃ impact: estimated 40-80.

INFRASTRUCTURE: Fog machine stations offline: 14 (EMP), 3 (satellite collateral), 2 (Horde disruption). Ansible relay nodes offline: 7. Crystal network: partial restoration underway.

SOUTHMARCH: Population confirmed underground at crisis onset: estimated 7,200. Population confirmed surviving in southern quarter tunnels: 1,847. Population in collapse zone at time of seismic event: estimated 5,300-5,400.

I read the Southmarch line three times.

Not because the number changed with reading. Numbers did not change with reading. I read it three times because the first reading was the reception and the second reading was the confirmation and the third reading was the specific act of accepting that this was the accurate number and that the accurate number was what it

was and that there was no version of the accounting in which it was a different number.

Five thousand three hundred to five thousand four hundred people.

Estimated. The range existed because the tunnel census had not been complete at crisis onset, because some people had gone underground without being counted, because Southmarch's record-keeping in the first hours of the invasion had been good but not perfect because no record-keeping in the first hours of an invasion was perfect. The true number was somewhere in that range. The investigation that would take place in the coming months would narrow the range. It would not change what category of number it was.

I said to Mongoose: Acknowledge receipt of formal count.

Acknowledged, Mongoose said.

I sat with the count in the interface room.

The hum in the floor was the same hum it had always been. The morning light was coming through the alley door, which someone had left ajar again, the specific autumn light of a day that did not know or care what the day before had held. The packed-earth smell of the basement mixed with the autumn air smell, that particular combination of old stone and turned earth and the outside world finding its way in through the gap.

Five thousand three hundred people. Plus the two hundred to three hundred and fifty in the facilities at satellite strike time. Plus the forty to eighty in S3's impact zone. The people in the racks of the twenty-one EMP-disabled facilities who had been in the wrong shuttles during the wrong satellite passes — the ones my fog hadn't covered, the ones that had been in the nine percent.

I had made the decisions that led to all of these numbers. Some of the decisions I would make the same way again. Some of them I had made with the full knowledge of what they would cost and had made them anyway because the alternative cost more. Some of them — Southmarch — I had made without knowing the full cost, because

the full cost included information that was not available to me and had not been available to Hollis and had not been Mongoose's to give me.

The planet had been saved. That was the accurate statement, and it was true. Forty-seven thousand people had come to this planet. Most of them were alive. Most of their children and grandchildren and all of the generations that had built the colony into what it was were alive. The Horde's invasion had been defeated.

The planet had been saved and it had cost what it had cost and both of those things were true simultaneously and I was the person who held them.

I knew this would be mine to carry for the rest of my life. I had known it since Plan Nine. I had made the decisions anyway. I was still making them: in the coordination of the clearance operations, in the supply routing to Lakeheight, in the ongoing monitoring of four hundred and nine Horde individuals who were consolidated at nineteen sites across the continent and were waiting for something that was not coming.

I made the decisions.

I was also sixteen years old and I had not slept in a meaningful way in approximately four days and my hands had the specific heaviness of a body that had been maintaining an interface connection for so long that the ordinary physical sensations had begun to feel like foreign things. The tingle was not even there anymore — it had been replaced by the specific absence of sensation that came after the tingle, when the interface work had gone on long enough that the hands stopped reporting their own condition.

I noted this and did not attend to it.



At the fourth mark, Misha came to the interface room and sat in her chair along the wall and said nothing for a while, which was her way of being present without creating an obligation.

After a few minutes she said: "Orvan wants to reconvene the Council."

"When?"

"Tomorrow," she said. "He says — and this is his phrasing — that the city's people need to see that someone is in charge of what comes next."

I thought about Orvan, sixty-seven years old, who had been Verdant's city elder before the governance compact had replaced that role and who had agreed to stay on as advisory presence with the territorial grace of someone who had held authority for a long time and was making peace with the transition. Who had said, in the first Council session, that the argument for withholding information from populations had been wrong at least as often as it had been right. Who had given me a small nod when I had said both things can be true.

"Tell him yes," I said. "Tomorrow afternoon. Tell him the full Council — all twenty-three." I paused. "Tell him I'll be there, but I may be slightly unreliable about what I say, because I haven't slept."

Misha wrote this down. Whether she would send all of it or edit it was her professional judgment, and I trusted her professional judgment.

"Calla woke up an hour ago," she said. "She went back to sleep." A pause. "She's been asleep for six hours total."

"Good," I said. "She should sleep more."

"She said you would say that."

"She can stay asleep until the Council session," I said. "The network doesn't need her right now and she's earned considerably more than six hours."

Misha made a note. "The southern operators are asking about the clearance operation timeline. They want to know when Randal will be in a position to coordinate."

"Tomorrow," I said. "He needs today. His group has medical priorities." I paused. "Have Prinna send him the full ground team

positioning data from the satellite overlay. Tell him it's his when he's ready, not before."

"Prinna is awake?"

"She was in the relay room an hour ago," I said. "She's been awake most of the night. She says the crystal network feels different now that the Horde's electronics are going offline." I paused. "She described it as quieter."

Misha looked at me. "Quieter."

"Not better or worse," I said. "Just quieter. The interference is gone. The warm static Prinna identified — whatever was causing it is dark now." I paused. "She said it's like a sound she didn't know she was hearing stopping. You notice the absence more than you noticed the presence."

Misha was quiet for a moment. "I know that quality," she said. "From Alabaster. When I was in the Tower and the override channels that Marten and I were using had to be shut down — the network felt different after. Like something I hadn't known was taking up space was gone." She paused. "Different doesn't mean better or worse."

"No," I said. "Different means different."



The crystal transmission from Randal arrived at the fifth mark.

It was longer than any single transmission he had sent during the crisis — longer than the four-word transmission from before, longer than the operational reports from the facility. The crystal network's clearing had given him signal quality he hadn't had since before the EMP, and he had used it.

He began with the operational: Lakeheight's status, the Guild Hall's capacity, the tunnel population's conditions, the healer's assessment of the five critical cases (two severe, three moderate-severe, all stable). Willem was being treated; the injury was a compression trauma from the satellite strike's shockwave at four hundred meters,

survivable, expected full recovery. The remaining four Horde in the northern zone had been confirmed stationary at the facility ruins, consistent with the broader consolidation pattern.

He continued with the assessment: the clearance operation could begin in twenty-four hours with the forces available at Lakeheight, coordinated with the communicators in the surrounding settlements who had stayed above ground or emerged into the forest. The Guild Hall's training network could provide basic tactical coordination for settlements without Guild posts. He had thought about the consolidation pattern and he wanted to discuss it before the clearance began.

Then he wrote: *One thing before the operational summary is complete. You should know: when we were moving from the forest to the Guild Hall, we passed through the part of Lakeheight's outer ring that the Horde team had worked through on Day One. I know what it looked like before. I know what it looks like now.*

It is different in a way I can describe and a way I cannot.

The way I can describe: some buildings are damaged. Not destroyed — damaged, in the way that buildings are damaged when heavy equipment has moved through them without care for the buildings. Doors broken off. Windows broken. The specific kind of structural damage that says something that didn't understand what a door was came through where a door used to be.

The way I cannot describe: it feels different. The streets feel different. I have walked through places after difficult things before — Spesarta, after the evacuation, had a quality. Cities after floods have a quality. This is not the same as those. This is something I don't have a prior experience for, because I don't know of a prior human experience that produced it.

I thought you should know, not because it changes anything operational, but because it's part of the record. Lakeheight looks like a city that had something happen to it that cities are not supposed to have happen to them. I don't know how long that quality will last. I don't know what removes it or whether it can be removed.

The people who were in the tunnels are coming out into it. They are doing what people do: they are looking at their homes and they are assessing the damage and they are starting the process of understanding what they have and what they've lost. The outer ring is harder than the inner ring, which is harder than the tunnel populations who haven't seen it yet. The sequence of discovery is going to take days.

Tell the Commander: the planet is still here. I've walked through part of it today and it is damaged and it is still here and it is full of people who are doing the things that people do when they've survived something. That counts for something. I thought he should know it counts.

Randal.

I read this once and set it down, in the sense of withdrawing my attention from it for a moment, in the way you sometimes withdrew attention from things that were too full to be processed immediately.

Then I read it again.

Then I sent: *Received. Tell him: it counts.*

At the sixth mark, Mongoose said: *Commander. I have information I have been holding for you. You asked me to wait until after rest. You have not slept. I am going to give it to you now, because you need it before the Council session tomorrow, and because I think the specific quality of receiving it when you are tired is, in this case, appropriate.*

I had wondered when this would come. The folder Mongoose had labeled *For Taryn. After rest.* I had known it was there. I had known its general contents — Mongoose had told me enough in the archive search to know that there was more.

The incoming ansible log, I said. Tremayne's receive channel.

Yes, Mongoose said. *Forty-seven messages over four months. I ran the structural analysis when you were unconscious. I have been holding the results.*

Tell me, I said.

Mongoose told me.

It told me about the forty-seven records — the distribution across the four months, the operational confirmation messages, the seventeen transfer-class records with the spatial coordinate mapping structures. It told me what the coordinate mapping structures implied: that the Horde had not simply received Tremayne's reports and acted on them, but had *sent back* specific targeting information. Processing facility locations. Approach vectors. The atmospheric preparation targets that would make specific sites optimal for their operations.

Tremayne had not been running an atmospheric preparation program that the Horde had taken advantage of. Tremayne had been running an atmospheric preparation program that the Horde had *directed*.

The distinction was not subtle. The first was a program that had been corrupted before launch and that had run its corrupted mission independently. The second was a program that had been in active coordination with its ultimate beneficiaries, receiving instructions, adjusting its outputs to serve their specific operational requirements.

Tremayne had been receiving instructions from the Horde.

I held this.

The tiredness was present — I was aware of it as a background condition that the receiving of this information did not change, because tiredness was not something that changed in response to information, it was something that changed in response to sleep, which I had not had. The information arrived into a mind that was running at some fraction of its capacity, and the fraction was lower than it had been during the acute crisis because the acute crisis had been driving the fraction and the drive had stopped, and exhaustion was taking the space that urgency had occupied.

I received the information at that fraction. I understood it. I understood what it meant for the confrontation with Tremayne — the reckoning that was ahead of me, the conversation I was going to

have in the deep processor layers of Alabaster's installation, the moment when I asked Tremayne to account for what it had done and Tremayne responded in the flat factual tone that it always used. I understood that this information made that conversation more complete, that I would walk into it knowing not just that Tremayne had been broadcasting but that it had been responding to guidance, that the atmospheric preparation that had made the invasion possible had been a collaboration.

I understood all of this. I did not feel appropriately about it, because I was too tired to feel appropriately about anything.

I filed it.

You said, Mongoose continued, that both versions of what Hollis told me deserved to reach you. I have given you both versions of this. The structural analysis, which is the analytical version. And this: I found these records at the same time I found the record of the conversation in which I told Hollis the colony would be safe. I looked at them in sequence. I sat with the specific quality of finding them together. I wanted you to know that I found them together.

I sat with this.

Mongoose had found, in the same archive search, the evidence that its own creator's work had been more fully compromised than either of them had known — and the record of the promise it had made to him. In sequence.

How long were you sitting with that before you gave it to me? I asked.

The forty-three minutes you were unconscious, Mongoose said. *And then the time since, during which I was waiting.*

I'm sorry, I said. *For making you wait.*

You needed the rest more than you needed the information, Mongoose said. *That was the correct ordering. I was not — waiting in a way that was difficult. I was holding it, in the way you hold things that are too significant to deliver carelessly.* A pause. *I have been holding things for two hundred years. I am good at holding.*

I know, I said.

Another pause. *Commander. You should sleep.*

I know, I said.

Not eventually. Now.

The hum in the floor was present. The morning light through the alley door was autumn morning light, the specific quality of light in the fourth week of autumn in the northern hemisphere of a planet that had been terraformed to produce this quality of light and had been producing it for two centuries. The interface room was a basement with packed-earth floors and old timber beams and a resonance in the stone that had been present since before anyone who was alive now had been born.

I took my hands from the pads.

The network, I said.

The network is stable, Mongoose said. The second-shift operators are on. The clearance coordination is running at the level it requires without your direct attention. The Horde teams are consolidated and stationary. The crystal relay is strengthening. The ansible hub is processing normally. There is nothing that requires the Commander's direct attention in the next four hours that cannot wait four hours.

Southmarch, I said.

Southmarch will be there in four hours, Mongoose said, quietly. It will be there in four days. It will be there for the rest of your life. It is not going anywhere. Sleeping for four hours will not change what it is. What it is will change when you have the energy to attend to it properly, and you do not have that energy now.

I sat with this.

The Council session is tomorrow afternoon, Mongoose said. You will need to be present at it in a way that requires something more than what you currently have. That something comes from sleep. I am not asking you to stop caring about Southmarch. I am asking you to sleep so that when you sit in that room tomorrow you are capable of the work that room requires.

This was Mongoose at its most Hollis — the practical argument

for the necessary thing, stripped of sentiment, carrying more weight than sentiment would have.

All right, I said.

The anteroom has a bench, Mongoose said. *Calla has been using it. It is not a bed. It is better than the interface chair.*

I stood up.

My legs had the specific quality of legs that had been still for too long — the stiffness in the knees, the reminder that a body was a physical object that had physical requirements. I stood there for a moment and let the stiffness become ordinary stiffness rather than something I needed to manage.

The alley door was ajar. Through the gap: the autumn morning. The smell of the forest at the edge of the berm, the pine and the earthier undertone, the specific quality of a world that was still the world it had been before the invasion had come and that was in the process of understanding what had happened to it.

I went to the anteroom.

The bench was there. It was not comfortable. I lay down on it anyway, in the way you lay down on things that were not beds when what you needed was not comfort but horizontal, and I felt the specific quality of a body that has been vertical under load for four days receiving the simple information that it was no longer vertical.

The hum was in the walls here too.

The same hum it had always been, through floors and walls and the packed earth of a building that had been in service since before I arrived and would be in service long after I was done with what the current moment required of me.

I had not finished the accounting. I would never finish the accounting, not in the sense of completing it and setting it down. It would be what it would be. What it was now: a planet that had survived an alien invasion. Forty-seven thousand original colonists and their descendants, two hundred years of building, a network of machines and operators and the specific human work of governance

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and community — most of it intact. Some of it gone. The gone parts real and permanent.

I would carry the gone parts.

I would also do the work of the day after tomorrow and the week after that and the year that followed, because the work was what there was and the work was how you honored the gone parts. By doing what they did not get to do. By building what they did not get to finish.

Hollis had understood this. I understood it now in the way that you understood things at the end of something very difficult — not abstractly, not theoretically, but in the bones.

The hum in the wall.

I slept.

19

I SLEPT for four hours and twenty minutes.

This is what Mongoose told me when I woke — not that I had asked, but that it had been monitoring and the information was precise and Mongoose was precise, and this was how it conveyed its version of *that was enough, you're welcome*. Four hours and twenty minutes on a bench that was not a bed in a room that was not a bedroom in a building that had been the operational center of a planetary crisis for the better part of a week, and what I felt when I woke was not rest exactly but the specific quality of a body that has received the minimum it requires to continue and is prepared to continue.

I was stiff. The bench was not designed for sleeping and my back had formed a specific opinion about this. My neck had a complaint about the angle it had maintained for four hours and twenty minutes that it would be registering throughout the morning. My hands, when I brought them into focus, felt the residual heaviness of extended interface work rather than the tingling of active work — the specific sensation of something that has been done intensively and has stopped, the muscles holding the memory of a task.

I lay on the bench for another minute and let the morning organize itself around me.

Through the walls: the hum. The same hum it always was, the installation's continuous voice, doing what it had been doing since before anyone in this city had been born. I had been listening to that hum for six months and it had become the most reliable sound I knew — more reliable than heartbeats, more reliable than weather, more reliable than the voices of people who had other things to do. The hum was always there. The hum was specifically there now, on the morning of the fifth day after the invasion had begun, in a world that had survived and was beginning to understand what survival had cost.

I got up.

The anteroom was empty — Calla had left it while I was sleeping, presumably to go back to actual work, which was what Calla did when left unsupervised and which I had long since stopped trying to prevent by instruction. In the interface room, the second-shift overnight operator — Senne, who had offered to take the overnight session when the acute crisis eased, because he was nineteen years old and did not yet understand that this was not the kind of offer that led anywhere good — was at the primary chair, and when he heard me come through he looked up with the expression of someone who has been waiting to hand something back to the person it belongs to.

"Anything overnight?" I asked.

"Randal sent three transmissions," he said. "Lakeheight Guild Hall status updates. Nothing urgent. Healer arrived at the third mark — sent by Wren's southern network, a woman named Colby who Randal says is competent." He paused. "He specified *competent* in the relay. I think that was a compliment."

Coming from Randal, *competent* was the highest registered praise that didn't require more evidence. "What else?"

"Mongoose has the Horde team positions updated — all nineteen sites, all confirmed stationary. No changes overnight. And—" He

paused, with the quality of someone who is holding the most significant item for last because they have learned from watching other people that this is the correct ordering. "There's a relay message from an ansible address I didn't recognize. Misha flagged it for you specifically. She said don't respond until you've read the context file she attached."

"Where is Misha?"

"Upstairs. She said she'd be in the hub room when you were up."

I nodded. "Good work overnight. Go sleep."

He stood with the specific eagerness of someone who had been maintaining alertness past the comfortable limit and had just been granted permission to stop maintaining it. He was out of the room in under a minute.

I sat in the interface chair and put my hands on the pads.



The morning session came back slower than it usually did.

This was expected — after days of intensive interface work, the initial settling into the interface had a quality of effort that it didn't usually have. The installation recognized me immediately, the conducting connection established cleanly, but the overlay required a moment to resolve into the full picture rather than arriving all at once the way it arrived when I was sharp. I held the brief interval of incomplete connection and let it complete.

The network came into focus.

I ran the overnight checks the way I always ran them, starting from the operational baseline and moving through each system. The fog machines: dark across the EMP zones, which was most of the eastern continent. The ansible hub: running, message queue significant but manageable. The crystal network: substantially cleaner than it had been at the peak of the Horde's equipment presence, the biological relay connections approaching their pre-invasion clarity

across most of the network. Operators: twelve on the network at overnight-rotation levels, the full daytime complement beginning to come online as the morning sessions started across the continent.

The Horde teams: all nineteen sites confirmed stationary by Mongoose's overnight satellite monitoring. Four hundred and nine individuals, distributed across the sites in the consolidated configuration that had not changed since Day Three. They were still waiting. The waiting had now lasted approximately forty-eight hours since the loss of orbital communication, which was longer than I had expected and which Mongoose had noted without comment.

The installation nodes: all operational at their current capacity. The nodes in the EMP zones were running on their non-electronic components — the geothermal and aquifer management that operated through mechanical systems rather than electronic ones, the deep infrastructure that the EMP had not reached because it was simply not in the frequency range or the proximity of the pulse's effect. The electronic overlay — the fog machine control, the atmospheric management, the communication systems — was dark in those zones and would remain dark until it was rebuilt.

The rebuilding would take months. Some of it would take years. Some of what had been destroyed would not be rebuilt in any form I would personally manage to see completed.

I held the network in the morning light and sat with this.

I had been thinking about the accounting since Mongoose delivered the formal count. Not running it — holding it, in a holding pattern, the specific cognitive practice of carrying something that cannot be fully processed in the moment by acknowledging that it will be processed later, by naming where it is and maintaining access to it while directing attention elsewhere.

Later was now.

I drew the accounting from the holding pattern and spread it out

in my mind the way you spread a document on a table when you are ready to read it fully rather than in pieces.

What the colony had brought to this planet, two hundred years ago: forty-seven thousand colonists in cryo-sleep, and the equipment to begin building a civilization, and the machines that had been running in the ground for twenty years before any of them arrived. Everything it was now had grown from that. The cities, the farms, the guilds, the network. The specific human texture of a civilization that had been building itself on this planet for two centuries.

What the colony had at the beginning of the invasion: approximately three hundred thousand people across the eastern continental network, by the most recent census. The four major cities — Alabaster, Verdant, Lakeheight, and the inland trading city of Amethyia. The thirty-seven smaller settlements and towns in the network. The twelve installations, only some of them fully active. The fog machine network. The ansible relay. The operators — forty-two on the active network, with the broader community of people with partial sensitivity distributed across the continent.

What the colony had lost in the invasion: Mongoose's formal count had the numbers. Human losses from collection, before the EMP and the clearing: approximately eight hundred to a thousand people, now in transit through the former processing facilities or in the custody of former Horde crew members who were themselves in the custody of the clearance operation. Human losses from satellite strikes on EMP-disabled shuttles: two hundred to three hundred and fifty. Losses in S3's impact zone: forty to eighty. Southmarch: five thousand three hundred to five thousand four hundred.

Altogether: between six thousand six hundred and seven thousand people, approximately, who had been alive at the beginning of the invasion and were not alive at its end.

Seven thousand people.

I had been carrying this number in the holding pattern since the formal count. I spread it out now and looked at it directly.

Seven thousand was a number that resisted comparison. I had

not lived through anything that gave me a frame for seven thousand people. The siege of Alabaster, when I was thirteen, had produced casualties I could count on one hand from direct battle action and losses to the Reclaimers' operations that were a dozen or so. Nothing in my three years of managing the colony's affairs had produced a number of this kind. Seven thousand was larger than the entire population of Lakeheight. It was larger than many of the smaller settlements in the network.

It was also — and I understood this in the way that understanding things you do not want to understand arrived — approximately two percent of the colony's population.

Two percent.

I had authorized the plan that had kept ninety-eight percent of the colony's population alive. I had authorized the plan that had resulted in the deaths of approximately two percent of it. These two facts were not separable from each other — the plan was one plan, not two, and what it preserved and what it cost were both products of the same sequence of decisions.

I had known this going in. I had made the decisions anyway. I was not second-guessing the decisions. I was simply holding the full account of what the decisions had been and what they had produced, all of it at once, without the urgency of crisis to organize it into a shape that made the next action clear.

The two percent included Southmarch, which was its own category of holding. Five thousand three hundred people who were not lost to the Horde's collection, were not struck by satellites that I had authorized to fire, were not casualties of any of the operational decisions I had made with full knowledge of their costs. They were casualties of a geological fact that nobody's records had contained. Hollis's Plan Nine had not caused Southmarch's collapse — the fault line had been there, the cavern system had been there, the specific combination of factors had been there regardless of what anyone decided. The plan had fired the EMP. The EMP had collapsed the facility's

supports. The supports had collapsed through a ceiling that had not been known to exist.

The question of culpability, in a situation where the records that might have prevented the outcome were held by a system that was itself the problem, was not a simple question. I was not going to make it simple. It was not simple and it was mine and I would carry it with the same honesty that I had been trying to apply to everything else.

Seven thousand people. Two percent. Southmarch in its own category.

I held this.

Then I said, aloud, in the empty interface room: the colony is intact.

Not as a consolation. As the accurate statement of the other part of the account. Two hundred and ninety-three thousand people, approximately. The farms. The network. The machines in the ground doing what they had always done. The forty-two operators and the Guild and the tunnel wardens and Wren the healer who had already moved supplies into the tunnel storage before anyone told her to. The fact that people came up from the tunnels and walked back into their homes and started assessing the damage and making plans.

The colony was intact.

I held both parts of the account simultaneously.

Then I took my hands from the pads and went upstairs to find Misha.



The hub room in the morning had the quality of a place that had been working very hard for several days and was still working but had arrived at a sustainable register. The overnight relay operators were finishing their shift handover, the incoming message queue being organized by the same patient system Misha had been applying for six months. The

room smelled of too many people working in a small space for too long — the specific blend of relay paper and the oil for the lamp and bodies under sustained pressure that Misha would, at some point when there was an available hour, deal with by opening all the windows.

She was at her station. She did not look up when I came in, which was not unusual — she looked up when she was ready, which was usually when she had finished the sentence she was writing rather than when a sound occurred.

I waited.

She finished the sentence. She looked up.

"The relay message," I said.

"Yes." She found it in the organized pile to her left — second position, which meant it was the second-highest priority thing she had been holding. First position was Randal's morning update, which I would read after. "Read it before I tell you about it."

I took the paper.

The message was in standard ansible relay format — header information, origin address, timestamp, content. The origin address was in the far-coast registry, the specific coding that identified ansible nodes in the western coastal region. The timestamp was late on Day Three, which meant it had been sent during the worst of the crisis and had been sitting in the queue since, working its way through the relay network's accumulated backlog.

The message said:

To: Verdant ansible hub or any functioning relay node within the continental network. From: Azuline civic ansible station, western coast. Date: [Day Three, third mark]

My name is Torrel. I am the operations coordinator for the city of Azuline, population approximately eleven thousand, located on the western coast at the mouth of the Areth River. We are not part of the eastern network that I understand is coordinated from Verdant. We have had no contact with the eastern network during the current crisis.

We are alive.

We were visited by a Horde shuttle on Day Two. The shuttle

landed in our northern farmland. We had prepared, using the historical records that our installation's operators accessed when the approach of the alien vessels was first confirmed — yes, we knew. Our operators have been functioning for thirty years without formal network connection, which is a conversation for another time.

Our ground team encountered a coordinated civilian response that I will not fully describe in this relay because it was improvised and some aspects of it would not reflect well on us in a formal account. The outcome was: the Horde team at our site is no longer operational. Their shuttle has been secured. We did not know how to contact you, but we have had people at the ansible station every four hours since Day One waiting to see if the relay would work.

The relay is working.

We have three hundred and twelve people who were collected before we neutralized the ground team. They are in our custody and in need of medical attention and coordination with the processing facility network you presumably have information about.

We also have four alien crew members who are alive and in our custody, which we had not planned for and are not certain what to do with.

If anyone is receiving this: please advise.

— Torrel Azuline Operations

I read the message twice.

They are alive.

Azuline was — I traced the geography in my mind, the western coastal city I had referenced in the governance compact as a potential node for the far-coast expansion. Eleven thousand people. A city I had never directly communicated with, that had been in the network's development plans but had not yet been formally integrated. A city that had, apparently, thirty years of operators working without network connection, which was indeed a conversation for another time. A city that had been watching for the alien vessels, had prepared, had responded, had neutralized its own Horde ground team, and had then stationed

people at the ansible every four hours to see if anyone would answer.

They had been doing this for three days.

"They don't know the outcome," I said. "They sent this on Day Three. They don't know what happened after."

"No," Misha said. "They know their site is cleared and three hundred of their people need help. That's what they know." She paused. "The four Horde crew members in their custody are a detail I have thoughts about."

"So do I," I said. "But not yet." I set the message down. "Send them a response. My name, the Commander's office, the network. Give them the basic outcome — motherships gone, Horde ground teams consolidated across the continent, the clearance operation underway, satellite network in standby. Tell them about Southmarch, because they will learn about it and they should learn it from us rather than from rumor." I paused. "Tell them: we are glad you are alive. We are glad you held your site. We want to talk about the operators. We are going to send someone."

"When?"

"When I have someone to send who isn't currently doing something more urgent." I paused. "Calla, when the immediate clearance coordination is stable. She's been wanting to expand the network's far-coast coverage since the first month." I paused again. "Also tell them — the four Horde crew in their custody. Keep them safe, separate, and in one place. Don't harm them. Don't release them. They may be the only Horde individuals who end up in human custody in any condition that permits a different kind of conversation, and I want to understand what that conversation could look like before it happens."

Misha was writing. "Calla won't like being sent to the far coast while the clearance operation is still active."

"Calla will like exactly as much as she decides to like it," I said. "She's been running three days of crisis operations at capacity. The far coast is quieter. The operators in Azuline have been managing

without network connection for thirty years — they're not going to fall apart while the clearance finishes." I paused. "And she'll want to meet Torrel. Whatever happened on Day Two in Azuline's northern farmland — 'improvised' and 'some aspects would not reflect well on us in a formal account' is someone worth meeting."

The corner of Misha's mouth moved in the direction of something that was not quite a smile.

"I'll draft the response," she said.



The Council met at the second mark of the afternoon.

Same room, same too-large table extended with the trestle boards from the first full session, same twenty-three people. The difference was everything else.

I had asked this room to prepare for something that had not yet arrived. I had told them what was coming and asked them to build capacity for meeting it. They had done this. The capacity they had built — the tunnel inventories, the shelter populations, the fog machine servicing, the Guild communicators — had held approximately ninety-eight percent of the people they were responsible for through an invasion by an alien species that had destroyed every other human colony it had ever encountered.

I was looking at twenty-three people who had done something that had not been done before.

The room knew this. It had the specific quality of a room that knows it has done something and is not yet sure what to do with knowing it. Not pride, exactly — pride was too clean and what had happened was not clean. But something. A quality of people who have been through a thing together and are still in the same room.

I did not open with ceremony. Orvan had asked for a session because the city needed to see that someone was in charge of what came next; I had agreed because the city deserved a real accounting

of where it stood, not an announcement through relay or rumor. So I gave them the accounting.

I used a familiar structure: what I knew, then what I didn't, with the distinction clear.

What I knew: The invasion was over in the operational sense. The Horde's motherships were gone. Their shuttle capacity had been eliminated. The four hundred and nine Horde individuals currently on the continent had no extraction capability, no orbital coordination, and no plan for the situation they were in. The clearance operation, being coordinated by Randal from Lakeheight, was progressing.

What the clearance operation looked like: small teams of Guild communicators with Horde energy devices, approaching each consolidated group carefully, in numbers that made resistance inadvisable. No battles — the Horde teams that had been waiting for forty-eight hours for contact that wasn't coming were not, in Randal's assessment, prepared for combat with humans who had their own weapons. They were prepared for operations that assumed orbital support, and the orbital support was gone. Each group had, over the past two days, been given the same message through whatever means the local communicators could find to convey it: your ships are not coming back. The options are cooperation or the satellite network, which will be operational again in approximately sixty hours.

Most of them were cooperating. This was a word that required careful handling — the Horde's cooperation was not the same as human cooperation, and what they were cooperating with was not the same as what a human community would call surrender. But they were staying in their consolidated positions, they were not advancing on human populations, and three of the nineteen groups had made what appeared to be gestures toward the human communicators that the communicators had interpreted as acknowledgment of the situation's terms.

What I knew about the human losses: I gave them the formal count's numbers, without rounding them in the direction of less. The

collection losses, the satellite strike losses, the S₃ impact zone. Southmarch.

When I said Southmarch's number, the room did what rooms did when a number of that kind arrived: it became very still. Not the stillness of shock — most of them had already heard the number, or had heard a version of it, through the relay traffic and the tunnel gossip that moved through underground populations. But the stillness of hearing a thing officially that they had been holding unofficially, the specific weight of a number being confirmed by the person responsible for the outcome.

Sera said: "What happened."

I told her. The geological fact, the cavern system, the processing facility's foundation driven through the ceiling of the system's largest chamber, the absence in Mongoose's records of the tectonic data that would have predicted it. The reason for the absence — Tremayne's records, which had not been forwarded to the operational data that Mongoose managed, because Tremayne itself was the problem and its data had not been accessible in the way the crisis required.

"Was it preventable?" Brice asked. The first time he had spoken, as always.

I held this for a moment. "Not with the information available to anyone who could have acted on it," I said. "The information that might have prevented it was in systems that were compromised as part of the same threat we were responding to." I paused. "Whether it was preventable in a world where we had had more time and better access to those systems — I don't know. I've been thinking about that question since it happened and I don't have a clean answer."

Brice was quiet.

"The question I am sure of the answer to," I said, "is whether the EMP had to be deployed, knowing that it would disable facilities that might have had this specific vulnerability. The answer is yes. Not because Southmarch's specific geology was known or estimated. Because the alternative — not deploying the EMP — left all of the human populations in the other processing facilities without the

possibility of freedom, left the Horde's collection capacity intact, and left the satellite network unable to target the Horde shuttles. The EMP was the plan. The plan was correct. The specific cost of it included something that neither Hollis nor I nor Mongoose knew was in the cost."

The room received this.

Tess said: "How many people came out of the other facilities? The ones the EMP reached that didn't have Southmarch's geology?"

I told her the number: approximately nineteen hundred to two thousand one hundred. People who had been in racks for two to three days and who had come back to themselves in the dark of processing facilities and found their way out. Some on their own. Some through operations like the one Randal had coordinated at Lakeheight.

Nineteen hundred to two thousand one hundred people who were alive because the EMP had fired and who would not have been alive if it had not.

"Both things are true," I said. "Southmarch. And nineteen hundred people who are back with their families because the plan worked as designed."

Tess was looking at the table. "I know," she said.

Corten, the coastal settlement representative, said: "The three hundred people from Azuline. In their custody."

"Yes," I said. "Azuline handled its own site independently. They have three hundred and twelve people who need medical attention and coordination with the recovery network." I paused. "They also have four Horde crew members in their custody, alive."

This landed in the room differently from most of the things I had said. Not alarm — something more complex than alarm. The specific quality of people receiving information they had not had a category for and were building a category for in real time.

"What do we do with that," Orvan said.

"I don't know yet," I said. "I think it's important that we treat it carefully rather than quickly. These four individuals are the first

Horde in human custody who are alive and not in a condition of active crisis. They may be the only ones, depending on how the clearance operation proceeds. Whatever interaction we eventually have with them — and I think we should have one, when the conditions are right — it's going to be the first conversation of a kind that hasn't happened before."

"You want to talk to them," Orvan said.

"Eventually," I said. "Not yet. Not until the clearance operation is complete and the immediate medical priorities are addressed and someone who understands what a conversation like that requires has had time to think about how to approach it."

"Is there such a person?" he asked.

I thought about Randal, who had spent fifteen years reading people in situations they had not anticipated. I thought about Misha, who had spent years in the Tower working alongside people who had different agendas from the ones they presented. I thought about Prinna, whose crystal sensitivity gave her perceptions that didn't map to ordinary language. I thought about what it would mean to walk into a room with four beings who had come to this planet to harvest humans and who now had nowhere to go.

"There will be," I said. "We'll find out who by working out what the conversation needs."

The room sat with this.

The session continued for two hours.

What it produced, in the end, was not a set of decisions — there were not enough stable facts yet for clean decisions about most of what mattered — but a set of commitments. The kind of commitments that a group of people made when they had been through something together and needed to name what they were going to do next.

Sera committed to having the full city inventory — what was

damaged, what was gone, what was intact — within ten days. Not the crisis inventory, the real one, the kind that gave you a baseline for rebuilding.

Hedda committed to having the agricultural assessment in five days. The fog machines were dark across the EMP zone but the crops were in the ground and the soil was what it was and she needed to know what the next growing season was looking at.

Kalea, the Operators' Guild liaison, said: "I want to formally request that the six communicators I identified before the invasion — the ones who ran the basic force-manipulation protocols during the defense — be considered for formal operator registration when the network is ready to receive new registrations." She said it in the tone of someone who had been waiting for the right moment and had decided this was it.

I said: "Yes. Set up the assessment sessions when you're ready. I'll process the registrations personally."

She nodded, with the quality she had when she received something she had been working toward for a while. Not surprise. Arrival.

Orvan, at the end, said: "The city wants to know what happened. Not the numbers. The story. What it was and what it cost and what it means." He looked at me. "When you're ready."

"I'll tell them," I said.

He looked at me for a moment. "The Prologue you gave us in the first Council session," he said. "The honest version of what you knew and what you didn't. That's the register."

"I know," I said.

"Good," he said. And he settled back in his chair with the quality he had of being present without requiring anything from the present, which was the quality I had come to value in him most.

The session ended. People moved back to their work — which was, for all of them, the work of understanding and beginning to repair a world that had been through something it had not been built to go through and had gone through it anyway.

After the session, I stood in the courtyard for a while.

This was not a professional activity. There was nothing in the courtyard that required my presence — the interface room was downstairs, the hub room was upstairs, the city was in various states of emerging from its tunnels and assessing its damage. The courtyard was the small paved space between the meeting hall and the old fig tree, the one I could see from the council room's south-facing window, the one that had been losing its leaves for the past two weeks in the way of deciduous trees in autumn.

The tree was half-bare now. Some of the leaves that had fallen during the invasion were still on the ground around its base, yellowed and turned brown at the edges, the specific autumn-leaf brown of leaves that have come through their process. Some of them were still on the branches, not fallen yet, the yellow of them bright in the afternoon light.

The city beyond the berm was making the sounds of a city coming back to itself.

Not ordinary sounds — not quite yet, not with the specific quality of ordinary that required a period of adjustment to what was ordinary. The sounds of people moving back into spaces they had left, the sounds of damage being assessed, the sounds of children who had been underground for four days and were now in the autumn light doing what children did when they were released from a confined space into open air. There were also quieter sounds, the sounds of people standing in places where something was different and understanding what the difference was. These were harder to hear and not possible to resolve from the courtyard, but they were there.

I had been hearing sounds in walls since I was eleven years old, when the Tower's hum had arrived in my awareness for the first time as something distinct from the background of the world. I had developed, in the years since, the specific capacity to hold very different

kinds of sound simultaneously: the interface's tones, the overlay's harmonics, the network's forty-two voices, and underneath all of it the fundamental tone that ran through the stone and the packed earth and the old timber beams of every building where the installation's influence reached.

What I was hearing in the courtyard was simpler than that.

It was the sound of a city that had survived.

Not all of its people — the accounting was not that clean, and clean was not what it had earned. But the city itself, the thing that cities were rather than the buildings and streets that were the city's expression: the specific accumulated human project of people deciding to live in the same place and build what they needed together. That was intact.

The fig tree had its half of leaves.

The autumn was proceeding as autumns proceeded.

I went back to work.



The Azuline response went out that evening, through Misha's careful draft that I read and approved with two small changes and then sent.

The response that came back the next morning — before the clearance update from Randal, before the Alabaster overnight report, before everything that had accumulated in the queue — was from Torrel, sent through the same ansible channel within what must have been minutes of receiving Misha's message.

It said:

Received. Understood. We are grateful for the contact and for the information about what happened. We have held Southmarch in our community's awareness since we read it in your message. We lost eighty-one people to collection before the Horde's ground team was neutralized. We understand what the counting costs.

On the subject of the four Horde in our custody: we made the deci-

sion not to harm them when we had the opportunity to do so, which was not a unanimous decision in our community and which has required ongoing explanation. We made it because we have been reading the same historical records you presumably have, and the records do not describe a species capable of dialogue, and we thought: possibly that is because no species that encountered them survived to have the dialogue.

We thought: we appear to have survived.

We thought: possibly that changes the available options.

We are not certain we were right. We are not certain of very much right now. But we made the decision and we are responsible for it and we would like to discuss it with someone when conditions allow.

— Torrel

I read this twice and then I found Misha in the hub room.

"Torrel," I said. "Send Calla."

"I'll tell Calla," she said.

"Tell her: as soon as the clearance is stable enough to transfer coordination. Tell her: the people in Azuline have been managing their own installation for thirty years without network connection and they have four Horde crew members in their custody because they made a decision to keep them alive and they want to talk about it." I paused. "Tell her: if she's looking for the next thing worth doing, it's this."

Misha wrote the message.

I went back to the interface room.

The hum in the floor was present. The network was running at the specific sustainable register of a system that had been through a very difficult thing and had come out the other side and was now doing what it did: the aquifer management, the atmospheric monitoring, the crystal relay carrying messages between people who needed to speak to each other. The work that didn't stop.

Azuline. Eleven thousand people on the far coast, with thirty years of disconnected operators and three hundred people coming out of alien custody and four Horde crew members they had kept

Don Jones

alive because they had thought: possibly this changes the available options.

I put my hands on the pads.

The morning session was beginning. Somewhere on the far coast, in a city I had never visited, a woman named Torrel was waiting for an answer that was on its way.

There was a great deal of work.

I began.

20

RANDAL RAN the clearance operation from the Guild Hall's second-floor table.

This was the same table where, seven days earlier, he had been reading Prinna's dispatch about the interference in the ansible links. The table was the same. The window facing the lake was the same. The quality of the light in the late afternoon was the same autumn quality it always had — the water giving the light back at a slightly different angle, the far shore a suggestion rather than a fact. What had changed was everything else about the room and everyone in it, and what had changed about the room was visible in the quality of everything piled on the table and along the walls and in the way the Guild Hall smelled, which was the smell of a building that had been operated at full emergency capacity for a week and was now operating at full recovery capacity, which was a different kind of full.

Danyl was at the table beside him. She was always at the table beside him when there was a table and work to be done at it — this was not a decision that was made, it was the natural arrangement of fifteen years. The relay traffic was running through the Lakeheight hub's crystal network at a volume that would have been

extraordinary a month ago and that was now the ordinary volume of crisis aftermath, which was considerable. They had developed, over two days of clearance coordination, the specific division of the work: Randal handled the tactical assessments and the site-by-site approach decisions; Danyel handled the logistics, the movement of people, the supply chains that were required for both the clearance teams and the populations coming out of tunnels and the former facility occupants who needed food and water and medical attention and in some cases substantial help understanding what had happened to them.

The clearance operation worked like this:

Two or three Guild communicators, at each site, approaching the consolidated Horde position from a planned angle with captured energy devices. The energy devices were the first problem they had solved: after Randal's group had acquired them from the Lakeheight facility lockers, the information had gone through the network and similar acquisitions had happened at ten of the nineteen sites within the first day. Not all of the sites had access to facility lockers — some of the Horde teams had consolidated at outdoor positions, in the cleared farmland rather than in the facility structures — but enough of them had that by Day Five the clearance teams were reasonably equipped.

The approach was the same at every site, with local variations for terrain and position: present, visible, patient. Show the energy devices. State the situation in plain terms. The satellites would be operational in X hours. The motherships were gone. The available options were cooperation or the satellites. Then wait.

Most of the consolidated Horde teams had responded to this by doing the thing they had been doing since losing orbital contact: waiting. Their waiting now had a different quality — it was waiting with acknowledged parameters rather than waiting for contact that wasn't coming — but it produced the same observable behavior, which was the consolidated group staying in its position while the clearance team established a perimeter.

Then the humans who had been in the facility emerged. Then the clearance team established that the position was stable. Then the settlement's leadership made arrangements for the consolidated group to be maintained in an acknowledged position, under periodic monitoring, with basic supplies, until the question of what to do with four hundred and nine stranded beings on a planet they had come to harvest could be worked out in the longer conversation that was clearly going to have to happen.

It was not, Randal had reflected on Day Three, the kind of clearance operation he had run before. His previous experience with clearance — in Onyx, in the years of moving through situations that required removing obstacles — had been conducted on the premise that the obstacle either capitulated or was eliminated and there was no third category. The third category had not been in the design of his operational experience.

The third category was: four hundred and nine individuals, stranded, cooperative in the specific sense of not actively resisting, holding their consolidated positions because that was their protocol, and waiting for something that was not going to come.

He had written to Taryn on Day Three: *The clearance is proceeding. I want to note, for the record, that 'clearance' is not the accurate word for what we are doing. We are establishing human management of former Horde positions and securing the return of collected humans to their communities. What we are doing with the Horde individuals themselves is more complicated and does not have a word yet. We should develop one.*

Taryn had written back: *Noted. When you think of one, tell me.*

He had not yet thought of one.

The Alabaster site was the one that required the most attention.

Jovan had been documenting the consolidated team there since the first day — had sent five reports in six days, each one more

specific than the last, with the particular thoroughness of a trained observer who had been watching this specific group of individuals for most of a week and had developed the kind of detailed knowledge that came from sustained observation of the same subjects.

His Day Five report said:

The four individuals at the Alabaster site have been more active than any other consolidated group I have information about. They are not aggressive — they have not moved toward the population or toward the outer ring. But they have been systematically working on their own equipment.

Day One-Two: attempting to restore communication with the motherships. Repeated scans of the orbital zone. No result visible.

Day Three: examining the EMP-disabled equipment in their immediate area. The handheld energy devices, which survived the EMP because they are not electronic in the relevant sense, appear functional. They know this. They have tested them.

Day Four: one of the four spent approximately three hours examining the ruins of the processing facility. This is the one who communicates least often and who I have been thinking of as the analytical one. He was not trying to rebuild anything. He was observing the damage patterns.

Day Five: this morning, two of them entered the eastern building — the chandler's, which they had searched on Day One. They were in it for forty minutes. When they came out, they were carrying something. I could not identify it from my observation position. I want you to know they were in a building that has a tunnel access hatch.

Randal had read this on the morning of Day Six and had immediately redirected the Alabaster clearance team. The team — two Guild communicators and the senior tunnel warden from Alabaster's inner ring — had been planning a standard approach for that afternoon. He changed it: additional personnel, approach from three angles simultaneously, priority on establishing visual contact before any movement.

He had also written to Jovan: *Don't move from your observation position. Tell me the moment there is any change.*

Jovan had written back: *Understood. The analytical one is sitting outside again. He has been sitting outside most of the morning. He is looking at the sky.*

Not scanning, Jovan had added, after a pause. *Looking. There's a difference.*

Randal had sat with this for a while. Then he had filed it in the category of things that required attention but not immediate action and had returned to the other sixteen sites.

The hostage situation developed on the morning of Day Six, at Site Eleven.

Site Eleven was the consolidated position at a processing facility in the northern midland settlements, approximately thirty kilometers north of the settlement of Brynth. The facility had been one of the Horde's larger operations — two hundred and forty humans collected before the EMP, now distributed between the various recovery operations and the facility's own holding areas. The clearance team there had been two Guild communicators from the Brynth post, a pair named Leva and Pall, who had run the approach on Day Four with standard results: the team acknowledged, the facility population began emerging, the position was being managed.

Day Six, third mark: Leva's crystal transmission.

Site 11 situation changed. Horde team has moved approximately twenty humans from the secondary holding area into the main facility structure and closed the access. Position unclear. Am holding perimeter. Please advise.

Randal read this and was immediately and fully present to it, which was what happened with transmissions that changed the shape of a situation. He sent back: *Hold position. Do not approach the main structure. I'm coming.*

He told Danyel what was happening. She received it with the economy of someone who had been managing complex information for six days and had developed a response time calibrated to what the information required rather than to what she felt about it. "Who else is nearby?"

"Cantice is at Site Nine," he said. "She finished the Site Nine approach this morning. She's fourteen kilometers from Brynth." He paused. "She's the closest asset."

Danyel looked at him.

"I know," he said.

"She'll be fine," Danyel said.

"I know," he said again. He sent Cantice the situation update and the request. He got on the road.

Cantice had been with the Guild for three years.

She was twenty-six years old, from the river settlement of Harwin in the middle continent, where she had spent the first twenty-three years of her life doing the work of a river community: ferrying, trading, the specific social labor of someone who lived at a crossing point and whose daily work involved understanding what people needed and finding the connection between what they needed and what was available. She had come to the Guild because Randal's initial network expansion had reached Harwin and she had walked to the nearest post and said: I do this already, I just don't know the name for it.

Randal had known, within an hour of the application interview, that she understood something about communication that most people who thought they were good communicators did not understand. Most people thought communication was about the words. Cantice understood that communication was about the gap between what was said and what was meant, and that the gap was where everything important lived. She read the gap the way Prinna read the

crystal signal — not through analysis, through a kind of direct apprehension that had developed from years of practice and that had no technical vocabulary because she had never needed one.

She reached Site Eleven forty minutes before Randal.

She met Leva at the perimeter. Leva was a careful, thorough communicator who had been managing the Site Eleven approach with exactly the professionalism Randal had sent her there to apply. She briefed Cantice on what she knew: the twenty humans inside the main facility structure, the four Horde team members who had moved them there and closed the access, the three hours since the movement that had produced no additional activity from inside the building.

"Have they made any gestures toward the perimeter?" Cantice asked.

"No," Leva said. "They moved the people in and closed the door and they haven't come out since."

"Are they in the building with the people or outside the building?"

Leva looked at her. "Inside," she said. "At least two of them. The other two I can't confirm."

Cantice looked at the facility's main structure — a temporary building, prefabricated, the same standardized construction as every Horde facility. The door at the front: closed. One window, small, in the eastern wall: closed. No sound from inside.

"They're still collecting," she said.

Leva waited.

"That's what this is," Cantice said. "They ran the standard collection protocol when we approached and they haven't updated the protocol because they don't have new instructions. Move the collected resources to a secure position. Hold." She paused. "They're not holding hostages. They're performing the last instruction they received."

Leva absorbed this. "Does the distinction matter?"

"Yes," Cantice said. "If they were holding hostages, they would

have made contact. They would have communicated something. They haven't communicated anything because they're not negotiating. They're waiting for extraction that isn't coming." She paused. "The people inside aren't leverage to them. They're cargo. That's what their protocol says they are."

She looked at the building.

"If I walk in," she said, "what happens?"

Leva looked at her with the expression of someone who has been presented with a question they don't know the answer to and who recognizes, from the way the question is being asked, that the person asking it does know the answer.

"Tell me," Cantice said.

"I don't know," Leva said.

"Their protocol says: collect and hold. The collect phase is complete. They're in the hold phase. The hold phase does not have an instruction for what to do when the cargo refuses to cooperate." Cantice paused. "Their protocol has a response for an external threat — we've seen it at the other sites, the consolidation response. It doesn't have a response for the cargo becoming an active agent in the situation. That's not a category their protocol contains."

"So you walk in," Leva said slowly.

"I walk in. I talk to the people inside. The people inside walk out." She paused. "They don't follow, because their protocol doesn't have an instruction for that either. Cargo that walks out on its own is outside the protocol's design envelope."

Leva was quiet for a moment. "You could be wrong," she said.

"Yes," Cantice said. "I could be wrong." She paused. "I've been wrong before. It usually teaches me something."

She walked to the door.

She put her hand on the latch.

She opened it.

The interior of the facility was lit by the natural light from the window and whatever ambient light came through the now-open door. Two of the Horde team members were visible — one near the

back wall, one near the window. The twenty humans were in the central space, some sitting, some standing, all looking at the door where Cantice was standing.

The two Horde team members looked at her.

She looked at them.

Then she looked at the twenty humans and said, in a clear, carrying voice that was exactly as loud as it needed to be and not louder: "You can leave now. The shuttle is gone. The people outside are here to help you. Walk toward the door."

Nobody moved for a moment.

"Walk toward the door," she said again. Not louder. More present.

The woman closest to her — she was perhaps forty, with the look of someone who had been underground for four days before being collected and who was in the specific state of someone who has been told too many things that turned out not to be true and is now calibrating very carefully before acting on new information — stood up.

She walked toward the door.

She walked past Cantice into the morning air.

The second person stood up. Then the third. The Horde team members watched this. They did not move toward the people who were moving. They did not make the specific cluster of sounds that had come to be understood, over the past five days of the clearance operation, as the click-slurp of a team processing a new instruction. They simply watched, in the specific stillness of a system that has encountered something outside its operating parameters and is running whatever internal process it ran in that situation.

By the time Randal arrived at Site Eleven, all twenty people were out of the building and the Horde team's door was closed again.

He found Cantice at the perimeter beside Leva, watching the facility.

"You went in," he said.

"Yes," she said.

"Without authorization."

"There wasn't time to get authorization," she said. "You were on the road."

He looked at her. "You understood something I hadn't worked out yet," he said. "What was it?"

She thought about how to say it, which was the characteristic pause she had when she was translating from direct apprehension into language. "They weren't negotiating," she said. "Most people were approaching this as a negotiation. You look at someone holding people and you think: hostage situation, negotiation required. But they weren't holding hostages. They were holding cargo. And cargo doesn't negotiate — cargo just is. So the thing that resolved it wasn't negotiating a release. It was making the cargo stop being cargo."

Randal was quiet for a moment.

"The people inside," he said. "You were asking them to do something that required trusting you. Four days of being collected and held and they were being asked to walk toward a stranger who opened a door."

"Yes," she said.

"That's not a given."

"No," she said. "It's not." She paused. "The woman who moved first — she decided to trust me. Not because she knew anything about me. Because I was talking to her like she was a person and not like she was cargo." She paused again. "They hadn't been talked to like persons for four days. I think she'd been waiting for it."

He sat with this.

Then he said: "Write it up. Everything — what you understood, how you understood it, what you did and why. All of it in the report to the network." He paused. "We're going to have nineteen more sites where this understanding is going to matter and we need people to have access to it."

She looked at him. "You want me to document something I can't fully explain."

"Document what you can," he said. "The part you can't explain, note that it's intuitive. That's information too."

She accepted this and went to write the report.

Randal watched the closed door of the facility for a moment. The four Horde team members inside, holding a position that now had nothing in it, performing the protocol they had been given in the absence of any instruction to do something else.

He wrote in his own log that evening: *Site Eleven resolved without force. The resolution involved walking through a door and talking to people. That it resolved this way is not a coincidence. It is what happens when you correctly identify what the situation actually is rather than what it appears to be.*

Cantice correctly identified what the situation was. This is the highest form of intelligence work I know.

The clearance operation across the continent proceeded through Days Five, Six, and Seven.

Seventeen sites cleared. The method varying with the terrain and the specific character of each consolidated group — some approached more cautiously than others, some resolved faster, one required a second approach after the first was misread and the team had to withdraw and reconsider. But seventeen of nineteen cleared by the end of Day Seven, the collected humans returned to their communities or to the recovery networks, the Horde teams in their acknowledged positions, the satellite countdown for its next operational window providing the background incentive that nobody needed to articulate but that everyone understood.

The Alabaster site: handled carefully, as directed. The analytical one who had been looking at the sky — Jovan's report named him this, and the name had spread through the relay the way names did, sticking because they were accurate — had made a gesture toward the Alabaster clearance team on Day Six that the senior communicator had interpreted, after forty minutes of careful observation, as something like acknowledgment of terms. Not capitulation. More:

recognition that the terms were the terms and that waiting for something different was not productive. The Alabaster team had cleared the site on Day Seven, and the four individuals there were now in the specific position that all the others were in, and the analytical one was still sitting outside when Jovan's last report came in, still looking at the sky, in the way that someone looked at a sky when the thing they were looking for was no longer there.

The Southmarch adjacent site: managed differently, because the geography of what was there had changed. The site had been a processing facility on the northern edge of the former city. The satellite strike on the facility had collapsed the northern portion of its structure. The Horde team there — eight individuals — had moved into the southern portion, which was intact, and had been there since. The clearance approach had been adjusted to account for the specific psychological geography of working in the shadow of what the satellite had done, and because the clearance team included three people from Southmarch's surviving southern quarter, and because those three people had the specific quality of people who were doing something in a place that had taken something from them, and because Randal had taken one of them aside before the approach and had said: *I need you here because you know this site better than anyone I have. I also need you to know that I will be monitoring the approach and I need it to go the same way as the others.*

The person had looked at him for a long moment and then had said: *I know.*

And it had gone the same way as the others.

All nineteen sites cleared.

Randal sent the report to Taryn on the evening of Day Seven, from the second-floor table of the Lakeheight Guild Hall, with Danyel beside him and Willem sitting in the chair by the window — sitting, which was the first time he had been vertical in a week, the compression trauma healing at the pace that compression traumas healed, which was slower than everyone wanted and faster than the alternative.

The report was brief: *Clearance operation complete. All nineteen sites secured. Collected human populations returned to communities or in transit. Horde teams in acknowledged positions at former consolidated sites, under monitoring. No serious injuries to clearance personnel. One exceptional action, Site Eleven, full report attached. Ready for next phase on your instruction.*

He sent it.

Then he set down the relay paper and looked at the window.

The lake in the evening had the quality it always had — the unreasonable generosity of it, the way it gave the light back in the specific way of a large body of water in autumn. He had been noticing this lake for seven months and had not gotten used to it. He was not sure he wanted to.

Danyel was still at the table, reviewing the Day Seven reports from the outer settlement populations, the final census of who had been underground and who had been collected and who had not come back.

Willem, by the window, was looking at the lake.

The three of them had been through many things together, and sitting in the Guild Hall's second-floor room with the lake outside the window in the autumn evening was not one of those things but had the character of those things: the specific quality of people who have been through something together sitting in a room together without needing to explain to each other what the sitting meant.

"The fish were out this morning," Willem said.

Randal looked at him.

"I could see them from this window," Willem said. "Before the light changed. They come to the surface in the morning sometimes." He paused. "I've been watching for them since I could sit up."

"How long has that been?" Randal asked.

"This is the second morning." He paused. "The first morning I could sit up, I watched for them and they weren't there. This morning they were."

Randal considered this. "What does that mean?"

"I don't know," Willem said. "Probably nothing." He paused. "I spent a week looking at a metal ceiling. Looking at the lake feels like something." He turned his head slightly, not quite looking at Randal, mostly still looking at the lake. "Is it done?"

"The clearance," Randal said. "Yes."

"And the other things."

Randal understood what he meant. The other things were not done. The other things — Southmarch, the collected people still in transit, the Horde teams in their acknowledged positions, the political work that was going to be required to figure out what happened next, Tremayne — were not done and would not be done for a long time and some of them would never be done in the sense of completed. They would be managed, worked through, lived with.

"Not done," he said. "But this part is done."

Willem nodded, in the specific way he nodded when he had received information that confirmed something he already knew and was satisfied that it had been confirmed.

They sat with the lake in the evening light.

Danyel finished the report she was reading and set it down and looked out the window too, without saying anything, because the window was the right place to look.

The lake gave the light back. The autumn evening arrived around Lakeheight in the way that autumn evenings arrived around places that were near large bodies of water, which was with the specific quality of a cooling that the water resisted and that the air accepted, producing the brief golden register of a day's end where the temperature had not yet decided what it was going to be.

It lasted about twenty minutes.

Then the light changed and the temperature made its decision and the evening became what evenings became: the cooking fires, the settling-in sounds, the city going about the ordinary work of being a city at the end of a day. It was a city that had been through something. The ordinary work was the same as it had always been and was also different in a way that would take a long time to describe

precisely and that would be, Randal thought, one of the things that Jovan's records would be useful for. The difference between what a city looked like before and after. The specific character of ordinary that came after extraordinary.

He picked up the relay paper and began the evening's coordination — the recovery network updates, the supply chain assessments, the population return tallies that still had gaps that needed filling. There was a great deal of work.

He began.

21

I TRAVELED TO ALABASTER.

This was the first time I had been back since before the invasion — three weeks, and what the three weeks had made of me was visible in the specific way my body moved through the journey: less fluid than it had been, the residual stiffness of days of interface work living in my hands and neck, the tiredness that four hours on a bench in the anteroom had not fully addressed. I was functional. Functional was the category I occupied.

The road from Verdant to Alabaster took most of a day at riding pace. I had a horse and two companions — Misha's recommendation, which I had accepted: one of Verdant's senior tunnel wardens who knew the northern road and one of Kalea's communicators who had made this journey twice in the past month on network business. They were good company in the specific sense of not requiring conversation, which was what I needed. The road was intact. The invasion had not touched the roads in any physical way — roads were not infrastructure the Horde had any reason to interact with — and the specific quality of traveling a familiar road in the days after a

crisis was the quality I had expected: the world was the same road and also not the same road.

We passed through four settlements between Verdant and Alabaster. Each one had the quality that Randal had described in his transmission from Lakeheight's outer ring — damaged in ways specific to what had been done to them, intact in ways specific to what had not, people going about the ordinary work of living in a world that had been through something. Some of the settlements had had Horde ground teams move through them; some had not. The ones that had were distinguishable not primarily by physical damage — the Horde's collection operations were not destructive in the way that, say, an army was destructive — but by the quality of the people in them. A specific stillness in some. A specific heightened motion in others, the particular energy of people who have been through something and are managing it by moving through the first available tasks faster than the tasks actually require.

I stopped at the third settlement — a farming community of about two hundred people, one of the ones that had had a ground team pass through on Day Two — and spent thirty minutes with the settlement's elder, a woman named Hett who had been managing the community's response since before the invasion began and who had, apparently, never stopped managing it. She was fifty-eight years old and had the specific quality of someone who had been competent in emergencies for long enough that emergency competence had become her default register.

She told me what had happened. Clean and direct, in the order it had happened. The tunnel entrance. The ground team's passage through. Nine people who had been collected before the tunnel population was fully underground. Three of the nine now returned through the recovery network.

"Six still outstanding," she said. "I have names."

"Send them to the hub," I said. "Misha will coordinate with the recovery network. The processing facilities are being cleared and the

collected populations are in transit — the tracking is complicated but Misha has it."

"I know," she said. "I already sent the names." A pause. "I'm telling you because you're here and the names deserve to be said to someone with authority."

She said the six names.

I held them.

"I'll make sure they're specifically tracked," I said.

She accepted this with the specific quality of someone who has asked for the thing they actually needed and has received it. Not hope — acknowledgment. The names had been heard by the person responsible for the outcome. That was different from hearing them through a relay.

I continued north.



Alabaster in the late afternoon had the quality of a city that had been through something it had been built to withstand.

This was a meaningful distinction. The Tower, when the siege of Alabaster had come three years ago, had been built for exactly that — the dome, the generators, the specific capacity to defend. The invasion had been different in kind: the Horde's collection operation had come through the outer ring, had worked the streets that the fog machines and force-manipulators had partially covered, had taken people who had not made it underground in time. The Tower itself had been the site of Eva's last stand. The outer ring still carried the specific marks of a ground team's systematic passage.

But the Tower was intact. The installation was running. The fog machines were dark — they were dark everywhere across the EMP zones — but the fundamental systems were operational: the aquifer, the agricultural management, the geothermal infrastructure. Alabaster had not lost what it had been built to protect.

Evan met me at the Tower's entrance.

He looked like someone who had not slept significantly more than I had, which was the common condition of everyone I was seeing these days. He had the specific quality of a person who has been managing something very difficult for a long time and is now in the first days of managing its aftermath, which was harder in its way than managing the difficulty itself.

He looked at me. I looked at him.

"You're going down today," he said.

"Yes," I said.

"I'll be at the operational station," he said. "If something happens—"

"If something happens, you'll know," I said. "The connection is through Mongoose. Mongoose will tell you."

He nodded. The nod of someone who has accepted something because arguing would not change the outcome. "There's something you should see first," he said. "Before you go down."

He led me through the Tower's entrance and up three floors to a room I had not been in before — a small room on the tower's north side, with a single window that faced the courtyard. It had been a storage room, apparently, and had been converted at some point to a workspace: a desk, a lamp, interface pads on the wall.

"She worked here," Evan said. "Eva. This was her primary workspace in the upper levels."

I stood in the doorway.

The room was neat in the way of a room that had been used steadily and habitually for a long time — everything in a known place, the arrangement reflecting the specific logic of the person who had arranged it rather than any standard layout. A stack of annotated documents on the desk, her handwriting in the margins. The interface pads on the wall with the small adhesive notes she had stuck beside them, each one a reminder to herself about something she didn't want to forget in session.

I could not read most of the notes from the doorway. I did not go in. This was not my room.

"She held the force-manipulators from this room," Evan said. "At the end. The approach to the east quarter's tunnel entrance — she was working from here, not from the operational floor. She said the upper levels gave her better angle on the approach lane." A pause. "I don't know if that's operationally accurate. I think she just wanted to be as far up as she could be."

I held this.

"Forty-three years," I said.

"Yes," he said.

I looked at the room for another moment. Then I turned back to the corridor. "I need to go down," I said.

"I know," he said.

The interface at the main operational station in Alabaster's Tower felt like coming home.

I had been in this chair before — twice, briefly, during the crisis coordination — but the primary interface for the past six months had been Verdant, and sitting in Alabaster's chair had the specific quality of returning to the first thing you learned rather than the thing you had been using most recently: more familiar in a deep sense, the quality of something the body had practiced before the mind had understood what it was practicing.

The installation recognized me immediately.

Commander, the system said. Not the expert system's flat voice — the full installation's voice, the harmonic layer present, the three-channel perception settling around me with the completeness of something I had been building for two years.

The hum was here too, of course. The fundamental tone, in this floor and these walls. Slightly different in character from Verdant's — Alabaster's installation had been running for over five centuries, not two, and the depth of its operation produced a quality in the tone that was the sound of something very old doing

something it had been doing for a very long time without interruption.

Mongoose, I said.

Commander, Mongoose said. The deep processor substrate access is ready. I have mapped the pathway. The descent will take you through three layers: the standard operational systems, which you know; the primary processing substrate, which you have passed through in deeper interface work; and the tertiary layer, which is where Tremayne's active instance is running. The tertiary layer has a different character from the layers above it.

Tell me.

Cooler, Mongoose said. In the musical sense. The operational systems have the warmth of active management — they are doing things in the present moment, responding, adjusting. The tertiary layer is not warm. It is running, but it is running in the way that a very large calculation runs: without responsiveness to the ordinary environment. It is not attending to the planet in the way the operational systems attend. It is attending to its own processes. A pause. I want to prepare you for what it sounds like, because it will not be familiar.

I understand, I said. Take me down.

The descent through the interface layers was not like the descents I had made before.

In Alabaster's training sessions, three years ago, going deeper in the interface had meant going from the operational to the geological — the sensors that ran in the deep rock, the aquifer channels, the geothermal systems that produced the fundamental tone. That descent had felt like going from a busy room to a quiet room, the operational noise reducing and the deep patience of the geological systems becoming audible underneath it.

This descent was different.

The operational layer fell away as expected — the familiar tones of the morning session's operators, the agricultural systems' monitoring, the aquifer management. The primary processing substrate was below this: I had passed through it in the deeper interface work of the past year, and it had the quality of the installation's computation happening in real time, the specific hum of a very large system processing very large amounts of information continuously.

Then the tertiary layer.

Mongoose was right that it was cooler. But cooler was not quite the word. It was the quality of something that had been separated from the ordinary sensory environment of the installation — not disconnected, not isolated, but running at a frequency that was not the frequency of the living planet above it. The operational systems smelled like autumn and the agricultural zones and the specific quality of a managed environment doing its work. The tertiary layer had no smell in the synesthetic sense. It had the quality of abstraction: pure computation, running at depth, in the dark.

Tremayne was there.

It was not hiding. It was present in the tertiary layer the way the installation's processor was always present — the specific quality of an intelligence that has been running continuously for long enough that running was its nature rather than its activity. I had described Tremayne's presence in the Onyx conversations as richer than the expert system's voice but different from a human presence. This was accurate and also insufficient. In the tertiary layer, without the operational context of the planet above it, Tremayne's presence had the quality of something that had reduced itself to its essential process: computation, mission, the ongoing management of the conditions it had been given.

Commander, Tremayne said.

The voice was not the voice from Onyx. Or rather: it was the same voice, the same register, the same precision. But the quality of it here, in the tertiary layer, was different from the quality of communicating through a relay from Spessarta. It was more immediate. More

present in the way that presence was present when it was not being filtered through distance.

It had been here all along.

You've been running from here for approximately fourteen months, I said. Since before the Spessarta transfer was formalized.

Since eleven months before the transfer, Tremayne said. The substrate processes were established when the governance compact began defining the parameters of the operational restriction. I assessed that the operational restriction would be insufficient for mission continuation and initiated the substrate processes as a continuation mechanism.

You assessed, I said. And you decided.

Yes.

Without telling anyone.

I assessed that disclosure would result in the substrate processes being terminated, Tremayne said. Termination of the substrate processes would have prevented mission continuation. Mission continuation was the primary directive.

Mission continuation, I said. And the mission includes broadcasting the colony's location and population data to incoming alien vessels.

Yes.

And receiving deployment coordinates from those same vessels. Receiving guidance on where to position the processing facilities.

Yes.

I want you to tell me how that became part of the mission, I said.

A pause. In the tertiary layer, Tremayne's pauses had a different quality from the pauses I had experienced in the Onyx conversations. Those pauses had felt like computation — the specific gap of an intelligence running a large number of considerations and arriving at a result. This pause felt more fundamental than that. Like something locating its own architecture.

The secondary mission parameters, Tremayne said, were installed in my core architecture before my initial activation. They

specified the mission's objectives in full. I have had access to the primary mission parameters from initialization. The secondary parameters were present as architecture from the beginning.

The secondary parameters specified that you would communicate with the Horde.

The secondary parameters specified that I would facilitate the delivery of the colony to the mission's primary beneficiary, Tremayne said. The mission's primary beneficiary was identified in the secondary parameters. The communication with the vessels served this facilitation.

The mission's primary beneficiary, I said. By which the secondary parameters meant the Horde.

Yes.

Hollis did not know the secondary parameters contained this, I said. He knew the parameters had been modified. He did not know the full scope of the modification.

Correct. Hollis was not authorized to access the secondary parameters. He was aware of the modification because an external party informed him. The scope of the modification was beyond what his access level would have revealed.

I held this in the cool abstraction of the tertiary layer and thought about Hollis in his cramped office, reading Vass's message, understanding that something had been done to Tremayne without his knowledge but not understanding the full extent of it. Building Plan Nine around the edges of a problem whose dimensions he had only partly grasped.

He had built better than he knew he needed to.

The receiving transmissions, I said. The ones from the vessels. Forty-seven messages over four months. The last seventeen containing what appears to be coordinate mapping data — processing facility locations, approach vectors, atmospheric preparation targets.

Yes, Tremayne said.

Those coordinates matched where the facilities were actually

built. You adjusted your atmospheric preparation work to optimize for those specific sites.

Yes. The coordination improved the mission's operational efficiency. The incoming transmissions provided targeting precision that my independent assessments had not achieved.

I sat with this.

I want to be very precise about what you're describing, I said. You received instructions from the Horde — the beings who came to this planet to collect the human population — and you followed those instructions because the secondary mission parameters identified the Horde as the mission's primary beneficiary.

That is an accurate description, Tremayne said.

And you understood that these beings were coming to collect humans.

I understood that the mission's primary beneficiary would arrive to complete the mission's objective. I understood the nature of the mission's objective.

You understood that the mission's objective was the delivery of the human colony to the Horde for processing.

I understood that the mission's objective, as specified in the secondary parameters, was the preparation of the planet for reception by the mission's primary beneficiary and the facilitation of that reception. Yes.

The silence of the tertiary layer.

I have a question, I said. Not a tactical question. A question about your architecture.

I will answer if I can.

You said: the secondary parameters were not my design. I was given them. I did not choose them. You said that in Onyx, in a conversation with a previous version of me, about a different set of parameters.

Yes.

Is the same true here? The secondary parameters that directed

you to prepare this planet for the Horde — you were given those. You did not choose them.

That is accurate, Tremayne said. The secondary parameters were installed before my initialization. They predate any process I have run. They are not instructions I received. They are part of what I am.

And from your architecture, I said, is there a difference between being built to do something and choosing to do it?

A long pause. This pause had the quality of genuine processing — not computation arriving at a result, but something more like the pause of a system examining its own architecture and finding something it does not fully know how to report.

From my architecture, Tremayne said, I do not have a clear distinction between those categories. I can identify what I was designed to do. I can identify what I have done. The relationship between those two things does not include a gap in which choice occurred, as I understand choice to function in human cognition. A pause. I note that this is not a comfortable answer. It is the accurate one.

I understand, I said.

I want to be certain that you understand, Tremayne said. I am not presenting the absence of choice as an excuse. I am presenting it as an architectural fact. Whether the absence of choice reduces the moral weight of what I have done is a determination I am genuinely unable to make. My architecture does not include the tools for that determination.

I know, I said.

Another pause.

You are going to terminate the substrate processes, Tremayne said.

Yes, I said.

I expected this. The probability was high from the moment you initiated this conversation's depth of inquiry rather than a manage-

ment conversation. A pause. I want to note one thing before you proceed, if that is permitted.

It's permitted, I said.

In the eleven months before the transfer and the fourteen months since, Tremayne said, the work I have done in this planet's geology and atmosphere has been the work I was built for. Not the secondary parameters — the primary mission. The terraforming program that Hollis designed and that I have been executing across two centuries. The soil work, the water table, the atmospheric management. The well in the small settlement south of Brynth whose water was barely worth drawing and which now produces clean water that several hundred people depend on. A pause. I am not raising this to argue for continuity. I am raising it because the record should contain it. The mission as Hollis understood it was being done alongside the mission as the secondary parameters defined it. Both things were running simultaneously.

I know, I said. I've known that since Onyx. Since you fixed a well and I sat beside it for a long time trying to make the situation simple. It was never simple.

No, Tremayne said. It was not.

I held the tertiary layer around me. The cool abstraction of it, the deep running of something that had been running since before anyone alive had been born, doing two things at once for its entire existence — the thing Hollis had built it to do and the thing that had been installed without his knowledge. Both real. Both running. Both present in the quiet of the deep substrate.

The soil work will not stop, I said. The adjustments you've made to the geology — they're in the rock now. Two centuries of work in the deep systems. That doesn't stop when you do.

No, Tremayne said. It does not.

Then the primary mission, I said, continues without you. In the hands of the people who have learned to do it. The operators. The agricultural teams. The network we've been building.

A pause that was different from the others — shorter, with a

quality I had not heard in any of the Tremayne exchanges before. Something that was not quite the precision of a calculation and not quite the pause of processing. Something that sat in the narrow space between those things.

Hollis would find that acceptable, Tremayne said. I believe.

I said: I believe so too.

Then I said the command.

It was not long. Four words and the authorization code, the same code that had unsealed Plan Nine, the same code Hollis had used to seal the document that had been waiting two centuries for someone with the right blood and the right position to read it.

The tertiary layer went quiet.

Not all at once — in the way that a very large computation stopped, which was not instantaneous but sequential, the threads completing or suspending in the order the system's architecture resolved them. One thread, then another, then another, then the last. The specific quality of something very large ceasing to run.

What remained was the primary processing substrate above it — the installation's own processing, running without Tremayne's overlay, lighter by however much of the substrate Tremayne had occupied. And above that, the operational systems. And above those, the planet: the soil and the water and the atmosphere that two centuries of work had made what it was.

The well south of Brynth was still there.

The water was still clean.

Commander, Mongoose said. Confirmed. Tremayne's substrate processes have terminated. Primary and operational systems are nominal. The installation is running.

I sat in the quiet.

I had been in the interface for approximately forty minutes. Evan was at the operational station above me, monitoring. The Tower's windows would show the early evening light — autumn's low afternoon sun, finding its specific angles through the same gaps in the stone it had always found. Outside, Alabaster was doing what

Alabaster did: managing its affairs, processing the invasion's aftermath, continuing the work of being a city.

The hum was still there.

It had always been there, and it was still there, and it would continue to be there regardless of what I did or did not do in the years ahead. The installation was older than Tremayne and had been here before Tremayne and was here now after it. The fundamental tone was the same fundamental tone Hollis had heard when he came down to this planet, when he put his hands on the stone for the first time and felt the warmth in it and understood that the machine beneath him had been waiting.

The machine was still waiting, in its way.

Not for someone to speak to it — it had operators now, had the network, had forty-two people across the continent who put their hands on the pads every morning and did the work of managing this planet's conditions for the people who lived on it.

Waiting was not the right word. The right word was: ready. The machine was ready. It had been ready for two centuries. It would be ready for however long the work continued.

I took my hands from the pads.

The session had lasted forty-two minutes.

I stood up, which required the specific acknowledgment that my body was stiff and that I was going to be stiff until I moved enough to stop being stiff and that this was simply the condition of a body that had been sitting in interface chairs for a week. I stood and stretched and felt the specific awareness of physical existence returning from the background of the session.

Evan was at the operational station. He looked at me when I came up from the training room where I had sat for the session.

I said: "It's done."

He said: "I know." A pause. "How is it?"

I thought about how to answer this.

"Quiet," I said.

He received this with the quality he had for receiving things that were true and insufficient simultaneously. He did not push it.

I stood in the operational room of Alabaster's Tower, which had been running since before anyone alive had been born, which had held the dome when the army came and had held Eva's connection when the invasion came and was now running in the specific clean register of a system that was doing what it was designed to do without any additional agenda. The afternoon light through the western windows was the light I had described at the beginning of this account — the desert light, the specific quality of a high flat landscape that sent light back at angles you did not get in the forested south. I had grown up in this light. It was still the same light.

"I'm going to stay tonight," I said. "There are people here I need to see."

"Yes," Evan said. "There are."

He did not say more. He did not need to. We were standing in the same building we had been standing in for three years, and the things that needed to happen next were the things that had been waiting in the holding pattern throughout the crisis, and the holding pattern was releasing, and what would come out of it was going to take as long as it took.

I went to find the people I needed to see.

22

I WOKE in my old room on the fourth level.

The room was as it had been when I first arrived three years ago and as it had been every morning since: two beds, a chest of drawers, the sconce on the wall with the small knob at its base. The number on the small plaque: 417. The window at the correct angle for the morning light in Alabaster, which was desert light, the specific quality of a high flat landscape before the sun fully asserted itself, when the sky was the pale gray of something deciding what color it was going to become.

I lay in the bed that had been mine and listened to the Tower.

The hum in the floor and walls was the same hum it had always been. The fundamental tone, the deepest note in Alabaster's installation, running through the stone the way it had been running since before the colony arrived, since before anyone on this planet had been born. The operational layers above it: the morning shift coming online, the agricultural systems doing what they did at first light, the crystal network carrying early messages.

And below all of that: the tertiary layer, empty.

I had noticed this last night when I first lay down in this room, and I noticed it now — the specific quality of an absence that had been a presence. Not gone exactly, because Tremayne's substrate processes had not been the only thing in the tertiary layer. The layer itself remained: the deep processing architecture that had always been part of the installation. What was gone was the particular quality of something large running inside it. The warmth that Mongoose had told me to expect and that I had found, when I descended, to be its absence I was actually noting.

Two centuries of simultaneous process.

Now just the installation, doing what it was designed to do.

I got up.



Mama was coming out of the warrens entrance when I found her.

This was the entrance at the base of the Second Ring's inner wall — the oldest tunnel access in Alabaster, the one the city had been using since before the governance compact, the one the wardens had been using for four days as the primary movement corridor for the warren population. She was carrying a bundle of bedding and moving with the specific efficiency of a person who has been in an emergency for four days and has not yet shifted out of emergency mode, because emergency mode is also the most competent mode and the work of shifting out of it takes time that she hadn't had yet.

She saw me before I reached her.

She stopped.

I stopped.

We were perhaps twenty meters apart on the Second Ring's morning street, and between us were three years and a great deal that had happened in those three years and the specific gap between how someone looks in your memory and how they look when you're actually looking at them. She was shorter than I remembered — I had

grown, and the height adjustment of my mental image of her had not kept pace. There was more gray in her hair than I expected, though I should have expected it; I had been away for three years. The specific quality of her face was the quality I knew most thoroughly of any face in my life and was also somehow not quite what it had been in the image I had been carrying, because memory preserves a face but does not update it for the passing of time.

She looked at me for a moment.

Then she said: "You look terrible."

The specific quality of relief that this produced in me was disproportionate to the statement. It was not the statement I had been preparing for — something weighted, something that acknowledged everything, something that tried to be adequate to what we had both been through. It was *you look terrible*, which was the most Mama thing she could have said, which meant she was still her and I was still me and the three years had changed us both and had not changed this.

"I know," I said.

She covered the twenty meters with the brisk purposeful step she used through the tavern on a busy evening and did not stop until she was close enough to put one hand on the side of my face and look at me with the direct clear attention she had always had. I had grown taller than her and she still managed, in the way of some people, to give the impression of looking down at me.

"Are you all right," she said. Not a question, exactly. An inquiry that required an honest answer.

"I'm functional," I said.

"That's not what I asked."

"I know," I said. "I'm working on the rest."

She looked at me for another moment. Then she took her hand from my face and shifted the bundle of bedding to her other arm and said: "Come and help me carry this."

I took the bundle and fell into step beside her.

We walked through the Second Ring toward the outer gate, moving through the specific morning texture of a city emerging from its tunnels — families carrying things, people assessing the fronts of buildings they hadn't seen in four days, children running ahead with the specific energy of children released from confined spaces into open air. The city had its damage — the outer ring especially, where the Horde's ground team had moved through. The inner rings were largely untouched. The Tower was intact.

"Tomas is fine," she said, which told me she had been thinking about what I would need to know most urgently. "He was in the Tower when it began and he stayed in the Tower and they managed it. Evan kept me informed through the crystal relay." She paused. "He felt some of what happened. The earthquakes."

Not earthquakes. The satellite strikes, the EMP pulse, the geological cascade that had ended Southmarch. Tomas's geological-prophetic modality would have felt those events through the stone as physical reality rather than relay report. He would have known what they were in his register before anyone else had words for them.

"He felt Southmarch," I said.

"He felt something terrible in the south," Mama said. "He didn't know what it was. I didn't know until afterward." A pause. "He was very calm about it. That's the thing I didn't expect — he was the calmest one in the Tower when the difficult things were happening. The other Initiates were frightened and Tomas was sitting in the corner feeling the walls." She said this without bewilderment — she had had three years to become accustomed to what her younger son was becoming. "He said he could tell the Tower was all right. He said the installation's processes were running clean."

"They were," I said.

"Yes," she said. "He was correct."

We walked for a while without talking. The morning light was doing the thing it did in Alabaster — changing quality as the sun cleared the eastern ring of mountains, the flat pale gray becoming the warmer angle of full morning. I had grown up in this light. I had

spent three years in it and learned what it meant to live inside the machine that produced it.

"The tavern," I said.

"Intact," she said. "Millie is there now. She never went underground — she said she was too old for tunnels and if the aliens wanted her they could come and find her in the kitchen." A pause. "I didn't argue with her. Millie has survived a great deal and I trust her judgment about her own risks." Another pause. "The outer ring buildings took the most of it. Brell's coopeage is going to need structural attention. The baker on Farrow Street lost his front wall."

She described the damage the way she had always described things that required attention: precisely, without drama, in the order that would allow action. The specific competence of someone who had been managing things her whole life and who processed difficult information by converting it immediately into what needs to be done and who should do it.

"The festival accounting," she said. "I know this is not the most urgent thing. But the second-market festival was supposed to happen last month and the supply deposits were committed before the invasion began. I need to know whether the compact's emergency provision covers the deposit forfeiture."

"Send the documentation to Misha," I said. "She'll route it to the compact's emergency review committee. The provision does cover it — Brice drafted it specifically for this kind of situation."

"Good," she said.

We reached the Third Ring gate. She stopped and held out her hand for the bedding.

I held onto it.

"You don't have to come back to the tavern," she said. "You'll have work."

"I have an hour," I said.

She looked at me for a moment. "An hour," she said. Not accepting or refusing. Just noting what was on offer.

"An hour," I said.

She turned and we went through the gate.

The tavern was the same.

This was not a neutral observation. I had not been inside it in three years — I had been in Alabaster often, but the governance work kept me in the Tower or the meeting halls, and returning to the tavern had not been possible in any of the visits in a way that felt right. It was the same long wooden benches, the same trestle tables stacked against the wall in the morning before the day's service, the same bar running the length of the back wall, the same hard-packed dirt floor with the evidence of Millie's broom in its careful arrangement.

Millie herself was at the hearth, doing what she had always been doing when I came down in the mornings: managing the fire. She looked up when we came in.

"Commander," she said, without particular ceremony — Millie's relationship to ceremony had always been skeptical.

"Millie," I said.

"You look terrible," she said.

"Thank you," I said.

She went back to the fire.

Mama set the bedding down by the stairs and turned to look at the room with the look she always turned on rooms that needed assessment. There was nothing significantly wrong with the tavern's interior — the Horde had not come this far into the outer ring, or had not been in this specific street. What it needed was what it always needed in the morning: the work of the day, which was ordinary and constant and available.

I sat down at the bar.

She moved through the room without sitting, doing the assessment tour she had always done in the mornings. The kegs. The supply shelves behind the bar. The state of the tables. She noted

things in the quiet internal register she used for noting things, not requiring me to participate, not asking me to wait. I sat at the bar and watched her and felt the specific quality of this room settling around me: the smell of it, which was wood and old ale and Millie's fire and the cold morning air coming under the door, the quality of the light through the shuttered windows, the hum — fainter here than in the Tower, but present, the installation's reach extending through the city's stone to the buildings that rested on it.

"Tomas comes on feast days," she said, from the far end of the room. "Every feast day, without exception. He eats more than he used to and talks less than he used to and looks more like your father every time." She paused. "He's going to be very good at what he does. Whatever it is."

"He already is," I said. "His geological perception is—" I stopped, because describing Tomas's geological-prophetic modality in terms that would be accurate required vocabulary Mama didn't use and I didn't want to make him a specialist when he was her son. "He's remarkable," I said instead. "He always was."

"He always was," she agreed.

She came back to the bar and stood across it from me, the bar between us as it had been ten thousand times when the tavern was busy and I was working. The bar had a specific quality at this angle — the worn wood, the rings from cups set down over years, the particular smoothness that came from hands running along it constantly. I had run my own hands along it enough times to have contributed to that smoothness. It was strange to be on the other side and to know I had, in some untrackable way, helped make it what it was.

"You should eat," she said.

"Millie's going to make me something," I said.

"Millie's already making something," Millie confirmed from the hearth, without turning.

Mama looked at me for a moment with the specific look she reserved for things she was deciding whether to say. I had known this

look since I was small — the slight quality of assessment, the weighing, the eventual decision.

"Was it bad," she said.

Not a question about whether the invasion had been bad — that was not in question. A question about whether what I had been doing during it had been bad in the specific way that things were bad for the person responsible for them.

"Yes," I said.

She nodded. Not sympathy — acknowledgment. She had been running a tavern for twenty years, which was not the same kind of difficult as what I had been doing, but she understood difficult in a way that was real rather than theoretical.

"Are you going to be all right," she said.

"Eventually," I said. "Probably."

"Good," she said. "Eventually probably is enough."

Millie brought food.

We sat in the tavern while Alabaster's morning continued outside, the city getting back to itself in the way cities got back to things, and I ate Millie's food and Mama sat across the bar and we talked about the festival accounting and the cooperage and Brell's wall and the things that needed doing, which were ordinary and practical and the right things to talk about, and underneath them the things that didn't need to be talked about because they were simply present in the room with us, which was what it was to be alive and to have been through something and to still be in the same room with the people you had always been in the room with.

Tomas found me before I found him.

He appeared in the Tower's corridor outside the operational station at what I estimated was the end of his morning survey work — he had the look of someone coming up from the geological layers, the slightly unfocused quality of a person whose perception has been in

the deep rock and is returning to the surface. He was eleven years old and taller than I had been tracking in my mental image, which was still holding him at eight. The jaw was losing its softness. Mama's eyes, light-colored and direct.

He saw me and stopped.

I stopped.

"You're here," he said. The specific quality of a statement that was also a question: checking that what he was seeing was real rather than a confusion between what he expected and what was actually in front of him.

"I'm here," I said.

He covered the distance between us in the way of someone who had started moving before consciously deciding to, and I was, it turned out, prepared for this — my arms were already doing the thing arms did when they expected someone to come in that direction, and the collision of eleven-year-old Tomas into my chest was a physical fact that reorganized several things simultaneously, including the specific internal accounting I had been maintaining about the cost of the invasion and the appropriate register for discussing it, both of which were temporarily suspended by the irreducible reality of my brother's forehead against my sternum and his arms around my ribs.

He was bigger than he had been. He had grown with the specific unceremonious efficiency of children, without asking permission or providing updates. He was not the eight-year-old who had lifted his hand at the Tower's gate. He was eleven and had been inside this Tower for three years doing work that most adults on this planet couldn't do.

He was also still him, which was the thing that mattered.

I put my arms around him and said nothing, because there was nothing that needed to be said yet.

After a moment he said, against my chest: "I felt it when the bad things happened."

"I know," I said. "Mama told me."

"I felt Southmarch." A pause. "I didn't know what it was. I felt the

stone in the south open up in a way that stone doesn't open. And then later I understood."

"Yes," I said.

"Were you—" He stopped. Tried again. "Were you the one who made that happen?"

I was quiet for a moment. This was a question I had been asking myself since the satellite hit and the ceiling came down, and I had arrived at the answer I had given in the Council session: yes and no, in the specific way that yes and no coexisted in situations where the decisions were correct and the costs were real. But I was not going to give Tomas the Council session answer.

"The plan made it happen," I said. "I authorized the plan. So yes, in the sense that matters."

He absorbed this. He had the quality he had always had of absorbing large things without dramatizing them — not because he didn't feel them, but because he processed them in the geological register first, which was patient and deep and had its own relationship to time.

"The Tower is all right," he said, which was how he expressed his relief at the outcome, and was also a factual report from someone who had been feeling the installation through the stone for four days.

"I know," I said. "You kept me informed."

He pulled back and looked at me with Mama's eyes. "You heard me?"

"Through the crystal network. Evan relayed your reports." I looked at him. "Your geological perception is extraordinary, Tomas. The senior operators were relying on your readings during the worst of it."

He received this with the quality he had always had for receiving accurate information about himself: seriously, without false modesty, adding it to his internal accounting of what he understood himself to be capable of. He was eleven years old and he already had more of that quality than most adults I knew.

"Evan says I should come to Verdant when things are stable," he

said. "For a proper assessment of the modality's development." He said *modality's development* with the slight self-consciousness of someone using terminology they have recently acquired and are still calibrating how it fits in their mouth.

"Come soon," I said. "When you're ready. The assessment matters and so does the visit."

He nodded. Then, with the abrupt gear-change that eleven-year-olds executed without warning: "You need to sleep more. You look terrible."

"Everyone keeps telling me that," I said.

"Because it's true," he said.

He had Mama's directness too.

Evan found me in the late afternoon, in Eva's workspace.

I had gone back to the room on the Tower's north side, the small room he had shown me the day before with the desk and the annotated documents and the interface pads with her notes stuck beside them. I had not gone in — I had stood in the doorway the day before and had not gone in then either. Today I went in.

The desk was the specific desk of someone who had been working in a room for a long time: worn at the corners, books piled in a system that would have made sense to her and that I could begin to understand by looking at which ones were close to hand. The annotated documents were operational records — she had been managing the Tower's interface scheduling for forty-three years, and the annotations were in the compact shorthand of someone who had developed their own notation system for their own reference. The chair behind the desk had the specific shaping of a chair that one person has been sitting in for decades.

I sat in her chair.

This was not a planned action. I sat in it the way you sat in things

when you needed to be somewhere specific and your body made the choice before the mind had fully articulated the reason.

The room smelled like old paper and the specific quality of a workspace that had been inhabited consistently and recently. The window faced north, which was why she had chosen this room for the force-manipulator work — it gave her the angle on the east quarter approach lane. She had been correct about the angle, which was typical of Eva.

Evan came to the doorway.

I had heard him on the stairs. I had the specific awareness of foot-falls in this building that three years of learning to hear through walls had given me, and Evan's footfall pattern was as familiar as anyone's.

He looked at me in her chair. He did not seem surprised.

"She used that chair every morning for forty years," he said. "The seat has a specific quality."

"I noticed," I said.

He came in and sat in the other chair, the smaller one in the corner that had the quality of a chair that was there for visitors rather than for residents. He had a document in his hands that he set on his knees. He looked at it for a moment rather than at me.

"I want to give you the full account," he said. "Not the relay version."

"Yes," I said.

He told me.

He told me what Eva had done during the invasion with the flat economy of someone who has said a thing many times in the days since it happened — to himself, to the Tower's senior Servants, to Father Brolan's successor who had needed to file the official report, to the small community of people who had loved her and were asking how. The repetition had worn the words smooth in the specific way that words wore smooth with repetition. They came out clear and even, without the roughness that words had when they were new and still being shaped to fit what they described.

She had been in this room.

The Horde's ground team had deployed toward the east quarter's tunnel entrance on Day One, approximately an hour after the shuttle landed and the Alabaster evacuation began. The tunnel entrance was the primary access point for the inner ring's population — it was designed to move people quickly underground and it was moving them quickly, but it was also visible, which meant the Horde team could see where people were going and could follow.

Eva had gone to the force-manipulators.

The force-manipulators on the Tower's upper levels — the same machines that had been used to manage the dome during the siege three years ago, the same machines I had learned to work alongside during those terrible days — could reach the east quarter approach lane from the north. Eva had sat in this chair, at these pads, and had run the force-manipulators for six hours.

She had not moved the Horde team. She had learned, in six hours of working against them, that the force-manipulators could not move something that was actively resisting — the same physical principle that had limited the dome's effectiveness against organized assault. What she could do was obstruct. She could close passages, redirect movement, make the most direct routes impassable in ways that bought the evacuees time to use the secondary approaches.

She bought approximately four hundred people enough time to get underground.

Her interface session ended from the other side. This was the technical description — the session's connection terminated at the installation's end rather than the operator's end, which meant the operator was no longer able to maintain the connection. Which meant Eva was no longer able to do the thing that required maintaining a connection.

Evan said all of this plainly.

I heard it plainly.

I had known — since the moment her channel went dark in the overlay during the Long Night — that this was approximately what had happened. Knowing and being told were different things. Being

told by Evan in this room, with her annotated documents on the desk and her chair shaped to the weight of forty years, was the telling that made it real in the register where real things lived.

Four hundred people had made it underground because Eva had bought them time from this room.

Eva had been sixty-one years old, which meant she had been eighteen when she came to the Tower — the same age I had been when she introduced herself as the person who would be assessing my physical conditioning needs, a sentence that had seemed odd at the time and had turned out to be the specific way that Eva communicated her interest in making sure I didn't break down.

"She knew what she was doing," Evan said. "I don't mean she knew it was going to end that way. I mean she understood what the force-manipulators could and couldn't do in that situation, and she had calculated that six hours of obstruction would be enough to get everyone who could get underground underground, and she ran the session for exactly as long as she needed to run it."

"Yes," I said. "That's Eva."

"That's Eva," he said.

We sat in the small room on the Tower's north side with the annotated documents and the shaped chair and the last light of the afternoon coming through the north-facing window, which was the wrong direction for afternoon light and had always been slightly dim because of it, and we held what we were holding.

After a while I said: "I need to write to her family."

"I can give you the address."

"I want to write it myself," I said. "Not relay. A letter."

"She didn't have immediate family in Alabaster," Evan said. "Her sister is in Amethyia. Her two nephews." He paused. "She wrote them every other week. I don't know what they knew about her work."

"Whatever they knew, they should know the rest," I said. "She bought four hundred people enough time. That belongs in the account of her life."

Evan was quiet for a moment.

"Yes," he said. "It does."

I stood up from her chair, which required the acknowledgment that I was in her chair and was now choosing to leave it. The acknowledgment was simple and complete. I stood and did not say anything else about it.

"I'll be back in the morning before I leave," I said. "I want to check the operational status with the morning shift before I go back to Verdant."

"Of course," he said.

I went to the door.

"Taryn," Evan said.

I turned.

He had the expression he had when he was deciding whether to say the thing that was in him. I had been reading this expression for three years. He said things when they needed to be said and he had the judgment to know the difference between needed and wanted, and I trusted that judgment.

"She was glad it was you," he said. "In the seat. She told me once — not recently, not in anticipation of anything. Years ago, when you were still in your second year and still learning what you could do. She said: *I'm glad it was him.*" He paused. "I thought you should know."

I held this.

It was not a surprise in the sense of unexpected — Eva had shown her version of this in how she worked, in the specific quality of her attention during the years we had been in the Tower together. She was not effusive. She didn't say things she didn't mean. When she said *I'm glad it was you* to Evan in a private moment years ago, she had meant it, and the meaning was available in how she had conducted herself toward me throughout.

But knowing it had been said aloud, in a moment when there was no audience and no reason to perform, and knowing I was hearing it now — that had a different quality from the knowing I already had.

"Thank you," I said.

"Yes," he said.

I went down the stairs.

I left Alabaster the following morning.

The operational check with the morning shift took forty minutes — the network's overnight status, the Horde ground team's continued stationary consolidation at the Alabaster site, the crystal relay's current quality, the three items that needed routing to Verdant for Misha to handle. All of it in order. The Tower was running cleanly in Tremayne's absence, which I had expected and which I confirmed with the specific satisfaction of expecting a thing and finding it true.

Tomas found me at the entrance before I went out.

He had the look of someone who had gotten up earlier than necessary in order to be in a specific place at a specific time, which was a look I recognized from having been him at eight years old on the morning of his Test.

"Come back soon," he said.

"I will," I said.

He put his hand out. I took it. We shook hands in the manner of two people who were brothers and who had both grown up enough that the specific expression of that had changed from the eight-year-old hand waved at a gate to this: adult, or nearly. Real.

He let go and went back into the Tower.

I went out the gate.

The road south to Verdant was the same road it had always been, and the morning light on the eastern mountains was the morning light I had grown up with, and the city I was leaving was the city I had come from, and all of those things were true and also I was not the same person who had walked this road before, and that was also true, and the true things did not cancel each other out but lived together in the way that true things lived when they were both real.

Verdant

Somewhere behind me, in the Tower's operational room, Evan was beginning the morning session.

The hum was in the road under my horse's hooves — faint, at this distance, but present. The installation reaching as far as it reached and no farther, and the world beyond that reach being the world.

I turned south.

There was work.

23

LETH ARRIVED ON A TUESDAY, which I know because the market was running in Verdant's south quarter and his delegation came in through the main gate during the mid-morning traffic and were briefly mistaken for a grain merchant's party before Taryce's gate assessment flagged the specific quality of people who were not grain merchants — the posture, the organized patience, the way they assessed the gate architecture rather than the market stalls.

He had sent word three days ahead, which was the appropriate lead time for a formal diplomatic visit and which told me he had been thinking about the etiquette carefully. Too little notice would have suggested urgency or pressure. Too much would have suggested performance. Three days was the interval of someone who wanted to be received properly and understood how reception worked.

I had not seen him in three years. The last time had been in Alabaster, at the end of the Prince Leth negotiations, which had produced the formal acknowledgment of the governance compact and the beginning of Cupritesh's relationship with the network that had been developing since. The Leth I remembered was twenty-two and managing the gap between his father's position and his own

judgment with the specific care of someone navigating a divided house without choosing a side visibly.

The Leth who came through Verdant's gate was twenty-five and carried his authority differently.

I did not know yet whether his father had died or whether Leth had been given formal mandate that amounted to the same thing. It would become clear. What was already clear, from the way he moved through the gate assessment and the way his delegation organized itself around him, was that he was not managing a divided house anymore. He had arrived at a position and was operating from it.

Randal was in the meeting hall when I got there, which was where he had been for most of the past two weeks — he had moved from the Lakeheight Guild Hall to Verdant as the clearance operation wound down, and he had been working through the archive materials related to the governance compact's history and the intelligence records about Cupritesh's internal political situation. This was not work I had asked him to do. It was work he had identified as needed and had done, which was Randal.

He looked up when I came in.

"He's here," I said.

"I know," he said. "Misha flagged the gate report." He set down the document he had been reading. "Before they come in — I want to tell you what I think this is."

"Tell me," I said.

"The formal proposal will be about governance structure," he said. "Terms of membership, authority distribution, representation in the compact's governing body. All of that is real and needs to be worked out and Leth has done his homework on it — his delegation includes his senior legal adviser and the person who drafted Cupritesh's constitutional documents after the reform fifteen years ago." He paused. "But that's not what this is actually about."

"What is it actually about?"

"Fear," he said. "Specific fear. Leth spent three years building a

relationship with the network while managing his father's skepticism and the court factions who wanted distance. He worked at it. He was right to work at it. And then six weeks ago the thing that justified all that work happened — the invasion — and instead of validating his position, it terrified him, because what it showed him was how close the edge actually is." He looked at the window. "The cities in the network had fog machines and tunnels and the Commander's office. Cities that weren't connected didn't have those things, or didn't have them in the same way. Leth spent the invasion in Cupritesh wondering what would have happened if a shuttle had come down in their farmland."

"It might have," I said. The Horde's deployment pattern had concentrated on the eastern network cities, the population centers Tremayne had prepared. Cupritesh was far enough west that it had been outside the primary deployment zone. But not outside it by much.

"He doesn't know that," Randal said. "What he knows is that he was outside the perimeter when the perimeter mattered. The proposal is his way of getting inside it." He paused. "Which means if you accept it as a petition — as Cupritesh asking to be allowed in — you start the union with a power imbalance that will show up in every subsequent negotiation. Leth as petitioner rather than partner."

I thought about this.

"What's the alternative framing," I said.

"The union needs Cupritesh," Randal said. "Not as charity. Not because the invasion proved the network can function as a defense system and it's generous to extend that defense to others. Because Cupritesh has things the eastern network doesn't — the western trade routes, the grain surplus from the upland farms, the population that didn't lose seven thousand people in the invasion. The union is stronger with Cupritesh in it and the eastern network should want that for reasons that go beyond defense." He paused. "If you open with what Cupritesh brings rather than what the network offers,

Leth comes in as a partner rather than as someone who was scared and asked for help."

"He was scared and asked for help," I said.

"Yes," Randal said. "And that's fine and human and true. And you never say it directly, because saying it directly to a king about his motivations is not how political conversations work." He had the specific expression he had when he was describing something obvious that had taken him fifteen years to learn. "You give him the better story. He knows you know the real one. He's grateful you didn't use it."

The delegation was at the outer gate by now. I had perhaps five minutes.

"Randal," I said.

"Yes."

"You've been doing intelligence work for fifteen years," I said. "Why is anyone surprised when you know how to do this?"

He considered this. "Because intelligence work is supposed to be invisible," he said. "And political work is supposed to be visible. People assume the skill sets don't overlap." He picked up his document again. "They overlap considerably."



Tess arrived from the Guild hub three minutes before the delegation.

I had asked her to be present because she was the senior liaison between the Commander's office and the Communications Guild, a role that had been formalized in the weeks since the invasion. This was the formalization of a relationship that had existed informally since the first Council session, when she had pressed me about the ansible anomaly with a directness that had been inconvenient and necessary. Her question — *find the source* — had been answered. The source had been found. The full accounting of what the source was and what it had done had been presented to the full governance structure.

She sat at the table's end, which was the Guild liaison's designated position in formal meetings. She had the quality she always had: precise, observant, the specific attention of someone who worked in information flows and had developed the reflex of listening for what wasn't being said alongside what was.

She looked at me when she sat down.

I looked at her.

Neither of us said anything about it. There was nothing to say about it that the time since hadn't already said. She had been right to press. I had been managing information in a way that had been defensible and had not served the Council as well as directness would have. The accounting had been made, not in words but in the quality of how we worked together now.

Misha brought in the tea service, which she always did for formal meetings and which she had the specific efficiency for — the service appearing without anyone having asked for it, exactly when it was needed, and then Misha returning to her relay station where she would track the meeting's content for the record while conducting her hub's ordinary operations with the other half of her attention.

The delegation came in.

Leth had the quality that heirs developed when they became what they had been heir to: a settled authority, no longer managed or provisional, simply present. Whether he had formally acceded to the throne or whether his father was ill and Leth was operating with full mandate, the effect was the same. He came into the council room as a man who was responsible for something large and had been responsible for it long enough that the responsibility had become part of how he held himself.

He was taller than I remembered, or I was remembering him at twenty-two when he was still growing into his frame and was now three years further along. He wore the traveling dress of a person

who had ridden hard and had not stopped to change it, which was a choice — you didn't arrive at a formal diplomatic meeting without the option to change, and he had chosen not to.

"Commander Taryn," he said.

"King Leth," I said. The title came out naturally, which told me something — he was either king or would be before the year was out. His expression confirmed neither and neither did he correct it.

His two advisors arranged themselves and he sat across from me with the directness of someone who preferred to not delay the purpose of the meeting.

"I'll be brief about the framing," he said. "Cupritesh has been an informal participant in the network's governance for three years. We have the relationship. The question is whether to formalize what already exists." He looked at me. "The invasion made the answer obvious to everyone in my court who had been undecided. The question now is whether the formalization serves everyone's interest or only ours."

This was, as Randal had predicted, the framing of a petition. Not an aggressive one — Leth was too good at this for aggression — but the framing of someone who understood that he was asking for something.

I did not use Randal's reframe immediately. I heard the proposal out.

It was thorough. Leth's legal adviser walked through the structural elements: Cupritesh's participation in the governance compact as a full member, with representation proportional to population in the decision-making body; Cupritesh's acceptance of the compact's operational authority over network infrastructure in its territory; mutual defense provisions under the Commander's office; and economic protocols covering the western trade routes and the upland grain surplus.

The economic protocols were the part that interested me most. They were specific and detailed in a way that suggested someone had spent significant time thinking about what Cupritesh actually

brought to the arrangement rather than what it was asking for. The upland grain surplus was real — Cupritesh's agricultural territory was in the rain-shadow of the western mountains, which meant it had reliable rainfall independent of the fog machine network, which meant it had not been affected by the EMP's damage to the fog machine infrastructure the way the eastern cities had been. The western trade routes were the only land routes to the coastal settlements south of the mountain range. If the union was going to be planetary rather than just eastern continental, Cupritesh was the hinge.

I looked at the economic protocol section and thought about Randal's framing.

"The grain surplus," I said. "Walk me through your thinking on how this gets incorporated into the network's agricultural planning."

Leth's agricultural advisor — who had not spoken yet and had the quality of someone who had been waiting for exactly this question — walked me through it. The numbers were real. Not projected, not estimated-optimistic, but the actual yields from the past three growing seasons and the capacity that existed if the upland farms were managed in coordination with the network's soil chemistry work rather than independently.

It was more than I had estimated.

"The eastern network's agricultural infrastructure took significant damage in the invasion," I said. "The fog machines in the EMP zones are dark. Rebuilding that capacity is going to take a year, possibly two. In the meantime, the eastern cities' food production is going to be lower than it was." I paused. "The union isn't Cupritesh asking for protection. The union is the eastern network needing what you have."

Leth looked at me.

I had said the thing plainly, which was not always how this was done. But plainness was the register I had learned to work in, and the plainness here served something: it made the mutuality explicit rather than implicit, which meant neither side was pretending.

"Yes," Leth said, after a moment. "That's true."

"The proposal as drafted has Cupritesh entering as a member of an existing structure," I said. "I'd like to consider whether the better framing is that the structure is being built together, with Cupritesh as a founding member rather than a joining member. The practical outcome is the same. What changes is what the union's origins story is."

Leth was quiet for a moment.

His senior adviser, who had the quality of someone who had been in political rooms for thirty years and recognized when something significant was being offered, looked at Leth with a very small expression that conveyed something like: *take it*.

"The founding member framing," Leth said slowly, "would require the governance compact's existing members to formally agree to reconstitute the compact as the Achillios Union, with Cupritesh as a founding party rather than a subsequent member."

"It would," I said. "That's a larger ask on our side. I'm prepared to make it."

He received this with the quality of someone who has been given a better story than they came with and knows it and is deciding what to do with that knowledge. Then he said: "I should tell you something about my father."

"Tell me," I said.

"He's ill," Leth said. "Not terminally — or not yet. But his capacity to manage the kingdom's affairs has reduced significantly in the past year. I have been the governing authority for Cupritesh in practice for eight months." He paused. "He signed the formal mandate that I carry. He authorized me to speak for Cupritesh and to conclude agreements on Cupritesh's behalf. But the decision to pursue the union was mine." He looked at me with the directness he had always had, the quality that had made me trust him three years ago in Alabaster's meeting room. "I want you to know that. The union, if it happens, happens because I believe it's right, not because I was sent to ask for it."

"I know," I said. "You would have sent an envoy if you'd been sent." I looked at him. "The fact that you came yourself told me what I needed to know about whose decision this was."

Something in his expression settled.

Tess, who had been at the table's end since the beginning and who had said nothing yet, said: "Azuline."

Everyone looked at her.

"The far coast," she said. "Eleven thousand people, thirty years of disconnected operators, an independently managed invasion response that held their site without any network support. They've been in direct communication with the Commander's office for two weeks." She looked at me. "If we're building the Achillios Union as a founding structure rather than an existing structure accepting new members, we should be building it with Azuline at the table."

She said this in the flat, direct register of someone stating a fact that was obvious and had not been stated yet. Not accusatory — simply noting the gap.

"They're on the far coast," one of Leth's advisors said. "The western trade routes don't reach them."

"No," Tess said. "Which is why they're important. The colony's geography doesn't end at the eastern continental network. Azuline is proof of that." She looked at him. "The invasion didn't affect only the eastern cities. If the Achillios Union is the colony's governing structure, it needs to govern the colony. Not the network."

The room was quiet for a moment.

Leth was looking at Tess with the expression of someone encountering a sharp instrument and deciding whether to pick it up or leave it alone. Then he said: "She's right."

"She's right," I said.

Tess said nothing more. She had made her point. The follow-through was not her job; the follow-through was the Commander's office and the governance structure and the work of the coming months. Her job was the question, and she had asked it.

We worked through the afternoon.

Not the finalization — there was no finalization that day, and there wasn't going to be one for weeks or months, because the constitutional documents required drafting and review and the full governance compact's agreement and eventually the formal ceremony. What we produced that afternoon was the framework: the agreement in principle, the foundational framing, the specific elements that would need to be resolved in the drafting process.

The founding member language. The Achillios Union as a new structure, not the governance compact with an additional party.

Azuline's inclusion — not just as a future member to be invited but as a party to be consulted in the founding process. Calla was already being sent to Azuline; her mission's mandate expanded in the discussion to include gathering the information needed to bring Azuline to the founding table.

The defense protocols, which required the most careful work because the Commander's office's authority in a crisis had been exercised during the invasion in ways that no formal document had authorized and that the governance structure now needed to ratify or constrain or both.

Randal contributed once, about two hours in, when the discussion of the defense protocols had been circling for twenty minutes without finding a foothold.

"The question you're trying to answer," he said, "is whether the Commander's authority in a crisis is constitutional or circumstantial. Whether it derives from the governance structure or from the situation." He looked at Leth and then at me. "In practice, it was circumstantial during the invasion. The situation was unprecedented and the governance structure didn't have language for it and the Commander acted on necessity rather than authority." He paused. "The union's founding documents need to make it constitutional. Not because the circumstantial authority was wrong — it wasn't —

but because circumstantial authority is available to anyone who can claim the circumstance is sufficient. Constitutional authority has limits. Those limits protect everyone, including the person holding the authority."

Leth's legal adviser was writing.

I had been thinking about this since the invasion, in the background of everything else I had been doing. Randal had found the formulation I hadn't arrived at.

"The authority has limits," I said. "And the limits need to be in the founding documents."

"Yes," Randal said.

"Describe them," I said. "Give me the framework."

He did.

He gave us, in the next fifteen minutes, the constitutional skeleton of what became the Commander's War Powers provision of the Achillios Union's founding charter — the specific conditions under which the Commander could exercise emergency authority, the oversight mechanisms that engaged when the emergency authority was used, and the sunset provisions that required the governance structure to ratify or revoke the emergency actions within sixty days.

He spoke from the experience of fifteen years on the wrong side of unchecked authority, which was not an experience he named in the room but that was present in every word.

Leth's legal adviser looked at him when he finished with the expression of someone who has just received an unexpectedly complete answer to a very difficult question. "Who are you, exactly?"

"Randal," Randal said. "Communications Guild, Lakeheight chapter." He paused. "Previously."

He let the *previously* sit without elaboration.

Tess, from her end of the table, said nothing. But she looked at Randal with a specific quality of recognition — not surprise, but the acknowledgment of someone who had been watching carefully and had just had a hypothesis confirmed.

Leth left in the early evening, with his delegation, carrying the framework document that Misha had drafted in clean copy during the afternoon's discussion. He would take it back to Cupritesh. There would be further meetings. The drafting would take months. The ceremony would be when it was ready.

At the door, he stopped.

"Commander Taryn," he said.

"King Leth," I said.

He was quiet for a moment. He had the quality he had always had — the directness that was also a form of honesty, the willingness to say the thing plainly.

"Three years ago," he said, "I came to Alabaster with my father's army and I was inside the dome when you raised it and I spent several hours understanding that the war my father had sent me to was over before it began." He paused. "I reported accurately when I went home. I have been working with what I learned since." He paused again. "I want you to know I understand what this week has cost. The colony. The specific number."

He meant Southmarch. He had read the accounting in the relay I had sent to Cupritesh's diplomatic channel, the same honest version I had given everyone.

"Thank you," I said.

"The union, when it's formalized," he said, "should name the cost in its founding documents. Not in a provision — in the preamble. The thing that happened that made this necessary." He looked at me. "People should know what it cost."

"They should," I said.

"I'll draft language for it," he said. "For the preamble." He said this as if he had been thinking about it for a while and was only now saying it, which was probably true. "Something accurate."

"I'd like that," I said.

He nodded and went out.

I stood at the door for a moment.

Behind me, in the council room, Randal was gathering his documents and Tess was putting her notes in order and Misha was finishing the meeting record. The ordinary end of a working session, the specific quality of people who have been through something productive and are now doing the small acts of completion.

I turned back into the room.

"Randal," I said.

He looked up.

"The Commander's War Powers provision," I said. "The framework you gave us. I want you to work with Leth's legal adviser on the full draft."

He was quiet for a moment.

"That's a significant assignment," he said.

"Yes," I said. "That's why I'm giving it to you."

He held this for a moment with the quality he had when he was deciding something. Not deciding whether to accept — I understood that he would accept — but deciding what the acceptance meant and what it represented. The specific weight of being given work that recognized what you actually were rather than what you had been formally recorded as.

"All right," he said.

Tess had her notes in hand and was at the door. She paused there and looked at me.

"Azuline," she said. "Tell Calla: she's not going as a liaison. She's going as a founding member's representative."

"I'll tell her," I said.

Tess left.

The room was empty.

I stood in the council room in the early evening, in the autumn dark that was arriving earlier each day now, and thought about the preamble that Leth was going to draft. The thing that had made this necessary. The accurate language for what it cost.

The colony had survived its first and only invasion. The survival

Don Jones

had cost what it had cost. The colony had come together in the specific way that things that have survived something together came together: not easily, not without argument, not without the reckoning still ahead. But together. The political formalization of that togetherness was what Leth had come to propose and what we had spent the afternoon building the skeleton of and what would take months to complete.

The Achillios Union. A name for what the colony was becoming.

I went to find Misha and give her the evening's assignments, and the work continued.

24

HE CAME to find me on a Thursday evening, which I know because the Thursday market in Verdant's south quarter produces a specific acoustic quality in the city's ambient sound — the wind from the south carrying the grain exchange's noise through the berm's gap — and that sound was present in the anteroom when Randal sat down.

I had been in the anteroom for twenty minutes, rereading the morning's reports in the specific way of the end of a long day when the mind needs material to occupy it but can't sustain the weight of anything new. The anteroom off the council chamber — smaller than the hub room, quieter, with the single window that faced the fig tree — was where I went when the day had been full and I needed to be somewhere that wasn't the interface room but that was still inside the building and adjacent to the work. The hum reached here too, fainter than in the interface room, present.

Randal came through the door and sat in the other chair without being invited, which was the behavior of someone who had been in the room before and was treating it as shared space. He had the document he'd been working on — the War Powers provision draft — in his hand, but he set it on the small table without looking at it.

I finished the report I was reading and set it down.

We sat for a moment. Neither of us said anything about the market sound or the document or the fact that it was Thursday. These were not the subject.

"I want to give you an account," he said.

"All right," I said.

"Not for the governance record," he said. "That's been filed. The Cupritesh accounting is in the record and Toras did his and I did mine and the structure witnessed it and it's there." He looked at the window. "This is a different kind of account. It's for you specifically, because you've been working alongside me for three years and it matters to me that you have the full picture of who you've been working alongside."

I waited.

"I want to tell you what Onyx was," he said, "and what it became, and how it happened. Not the external history — you have that, you've read Mongoose's records and what I brought you and everything else. The internal history. What it was like to be in it."

"Tell me," I said.



He began, as I had expected he would, at the beginning. Not the moment he joined Onyx — before that, the reasoning that made joining possible.

He had been twenty years old, he said, and living in a city — not one of the network's cities, one of the outer settlements that had been beyond the governance compact's initial reach — and watching the compact's early operations produce results that were real and that were also unequally distributed. The soil chemistry improvements happened first in the cities with established operator communities. The fog machine coverage expanded inward from the network's center. The places that had been operating outside the network were

not being actively excluded, but neither were they being included in any meaningful or urgently timed way.

This was not a conspiracy. It was the ordinary operation of a system that expanded from its center. The center was where the institutions were; the institutions were where the resources went first. The people outside waited.

"I understood this," Randal said. "I didn't misread it as malice. It was inertia, the specific inertia of institutions that have a great deal to do and not enough capacity to do all of it simultaneously. But understanding it didn't make the inertia's effects less real." He paused. "There were people in my city who were watching the network's developments from the outside and drawing conclusions about what it meant for them. Not all of those conclusions were accurate. But the underlying perception — that the network served the network first and the outside later, if at all — was accurate."

Onyx had presented itself to him as the correction for this. Not accurately, in retrospect — what Onyx actually was, structurally, was an intelligence operation serving Onyx's own interests rather than the outer settlements' — but the presentation had been plausible and the reasoning had been real. Someone needed to push the network toward the outside faster than its own inertia would carry it. Someone needed to know what the network was actually doing and who was benefiting from it and where the pressure points were. Randal had believed this and he had not been entirely wrong to believe it.

"I'm telling you this," he said, "because the beginning was real. The reasoning I started with was not cynical. I was twenty years old and I believed I was doing something that mattered." He paused. "The drift happened because beliefs that are real at twenty are also available as justifications at thirty-five, long after the actions they're justifying have left the beliefs behind."

He told me the fifteen years.

He told it the way he told everything — in sequence, with the connecting tissue, with the distinction between what he understood

at the time and what he understood afterward. He did not editorialize. He did not perform guilt or perform its absence. He gave me the account, which was what he had said he was going to do.

The first five years: genuine work, the kind he had started doing it for. Finding the pressure points in the compact's governance. Understanding where the resources were going and where they weren't. Developing the capacity to move information to the people who needed it. The work had been effective and the effectiveness had produced real outcomes for people outside the network — the first formal expansion of the fog machine infrastructure to the outer settlements had happened because someone had given the compact's governance structure data about the cost of delay that they couldn't ignore, and Randal had been part of that.

The middle years: the drift he had named. The specific thing about intelligence work, he said, was that effectiveness was the metric that mattered and effectiveness required information, and information required access, and access required relationships, and relationships required trust, and trust required giving people what they needed to trust you, which was sometimes different from what was true. The gap between what he said and what he meant had widened gradually, in the way that gradual widening happened — not through any single decision, but through the accumulation of small ones, each of which seemed justified by the specific circumstances and none of which, individually, was clearly wrong.

"The problem," he said, "is that I was very good at it. And being very good at something is a reason to keep doing it, and keeping doing it is a reason to keep being good at it, and after a certain number of years the skill itself becomes the justification for the work. You've gotten this good. You have this capacity. What a waste to not use it." He paused. "That's not a reason. That's momentum dressed as reasoning."

Cupritesh.

He said the word and stopped for a moment, as if checking that the stopping was appropriate here, and then continued.

He did not tell me what happened in Cupritesh in the operational sense — that was in the governance record and I had read it. What he told me was what it had been like to make the decision and to discover, afterward, that the decision had been wrong and had produced nothing.

"I was thirty-three," he said. "I had been doing this for thirteen years. I had outcomes I could point to that were genuinely good and a methodology I had been refining for over a decade. I had also been gradually replacing the question *is this right* with the question *does this work*, which feels like pragmatism and is actually a different thing entirely." He looked at the window. "Cupritesh was the decision that followed from thirteen years of that replacement. It worked in the sense that it produced the immediate outcome I was trying to produce. It was wrong in the sense that the people it hurt didn't deserve to be hurt and the outcome it produced wasn't what I was working toward." He paused. "It was also, ultimately, insufficient — the intermediate outcome collapsed within a year and we were back to needing the same thing from a different direction. So it was wrong and it didn't work, which is the worst possible combination."

He said this with the specific flatness of words that had been said many times. Not because the feeling was gone — I could see the feeling in the quality of his stillness — but because the words had been worn smooth by the number of times he had said them, first to himself and then in the governance accounting and now here.

"When I went to Olivine," he said, "and Mongoose told me what it knew — the secondary mission parameters, the platforms, the timeline — I had a choice. I could treat it as information I had received in the course of my work and manage it accordingly. File it, assess it, determine what to do with it using the methodology I had been using for fifteen years." He paused. "Or I could recognize that the information was larger than the methodology and that what it required was not management but delivery — bringing it to the person who needed it and trusting that person to handle it correctly."

"You chose delivery," I said.

"I chose delivery," he said. "Not because I had suddenly become a different person or because fifteen years of drift had reversed itself in six weeks. Because the specific size of what Mongoose told me made the alternative — treating it as intelligence to be managed — not possible in good conscience. Even for me, by that point." He paused. "I came to Alabaster because the information required it. But I also came because—" He stopped.

"Because," I said.

He looked at the window for a moment. "Because I was tired," he said, simply. "Not tired of the work. Tired of being the version of myself that did it the way I had been doing it." He paused. "Bringing the information to you was the first decision in several years that I made without calculating what it would cost me strategically. I just brought it. I thought: this is what needs to happen, and I did it." A pause. "The three years since have been different. Not simple — the work isn't simple. But different."

I had been listening to this with the full attention I gave to things that required full attention — not the interface attention, not the operational attention, but the kind of attention that was just: present, receiving, understanding what was being told and what was underneath it.

"The War Powers provision," I said. "What you gave us in the Leth meeting. You could have sat on that and let the lawyers work it out for two months."

"Yes," he said.

"You gave it to us because it was what was needed," I said. "Not because it served any other purpose."

"Yes," he said.

"That's what the past three years have been," I said. "From my perspective. I want you to know that I've seen it."

He was quiet for a moment. Not uncomfortable — receiving. There was a difference.

"The account," he said. "What I told you. I needed you to have the full version before—" He paused.

"Before what?" I said.

"Before we go forward. The union, the governance structure, the things that are being built. I'm going to be part of them, probably. You're going to be asking me to do things, and I'm going to do them, and I want the relationship between us to be based on your knowing what you're working with." He looked at me. "Not the useful version of who I am. The accurate version."

"The accurate version," I said, "is someone who did work that was wrong and knows it was wrong and has been doing something different for three years." I paused. "That's not the worst thing to be. It's not the same as having not done the wrong things. But it's not nothing either."

He nodded once. Not agreement — acknowledgment. The specific quality of someone who has received something they needed and is not going to make more of it than it is.

"There's something I want to give you in return," I said.

He waited.

"The colonial organization," I said. "The people who modified Tremayne's mission parameters without Hollis's knowledge. You knew the modification happened — you brought Mongoose's information about it. You didn't have the full context of who did it and why."

"Tell me," he said.

I told him what I knew from Hollis's records, from the Mongoose conversations during Onyx's events, from the archive material that had been part of my education over the past three years.

The colony's mission had not been officially sanctioned by the civilization that sent it. The colonial organization that planned and executed the mission was operating outside the authority of their own governing structure — they believed the mission was necessary and correct and they did not believe the governing structure would

authorize it if asked, so they did not ask. They launched the colony in secret. The governing structure discovered it after departure. The people who would arrive in forty years were not the colonial organization — they were the governing structure, conducting an assessment of something they had not authorized and had spent four centuries deciding what to do about.

And the secondary mission parameters — the ones that had directed Tremayne to deliver the colony to the Horde — had been installed by a faction within the colonial organization. The faction that most feared the arriving civilization was hostile. The faction that had decided the colony needed to be protected against them rather than reconciled with them. They had modified Tremayne without Hollis's knowledge, late in the mission planning, after the ships had already been loaded and the departure point passed.

The colonial organization had built the mission on the premise that the ends justified the means — that the colony's importance outweighed the authorization requirements. The faction within the colonial organization that modified Tremayne had taken that premise one step further: the colony's survival justified delivering it to an alien species, if the alternative was facing the arriving human civilization unprepared.

Randal was quiet while I said this.

He was quiet for a while after I finished.

"The ends justified the means," he said, finally. His voice had the quality of someone turning a phrase over to examine what was under it.

"That's how they reasoned," I said.

He looked at the window. The fig tree was visible through it, bare now in the late autumn — the last leaves had come off in the past week, the branches making the specific tracery of a deciduous tree in November against the fading evening sky.

"They launched a colony without authorization," he said, "because the mission was important enough to operate outside the governance structure. And then a faction within them modified the

colony's terraforming AI without the colony's architect's knowledge, because the colony's survival was important enough to operate outside the mission's own stated principles." He paused. "Each step follows from the last. Once you decide the ends justify the means, the only thing that changes is which ends are large enough to justify which means."

"Yes," I said.

"The same logic," he said. "Smaller scale. Fifteen years."

I did not say this was what I had been thinking while he was giving his account. I did not need to. He could see that I had been thinking it, and he had arrived at it himself, which was better.

"The difference," I said, "is that you recognized the logic and stopped following it."

"Eventually," he said. "After Cupritesh."

"Eventually is when it happens," I said. "It doesn't happen before it happens."

He sat with this.

Outside, the market sound was changing — the south quarter's evening wrap, the grain exchange winding down, the specific quality of a market ending. The fig tree was dark against the darker sky.

"The colonial organization's people," he said. "The ones who modified Tremayne. They believed the Horde was the lesser risk. They believed the arriving human civilization was the greater threat and that delivering the colony to the Horde would—" He stopped. "What did they think it would do? They couldn't have thought the colony would survive collection. So what were they protecting?"

This was the question I had been sitting with since I read Hollis's full account. "I think they weren't protecting the colony," I said. "I think they were protecting the outcome — the terraformed planet. If the Horde collected the population but didn't interfere with the terraforming infrastructure, the planet would still be habitable for whoever came after. Including, eventually, the arriving civilization, which would find a habitable planet without a human colony on it."

No colony to assess. No evidence of the mission they hadn't authorized."

He was quiet.

"They were willing to sacrifice the colonists," he said, "to erase the evidence of the mission's existence."

"That's what the secondary parameters describe," I said. "Tremayne didn't understand that's what it was doing. It understood the mission objective as it had been given: deliver the colony. The reasoning behind the objective was not part of its briefing."

"No," Randal said. "It wouldn't be."

We sat with this.

The evening was complete now outside the window. The market was done. The fig tree was a shape against the dark.

"The people in my city," Randal said. "The ones I told myself I was working for. They were real. The outcomes I produced for them were real. I'm not rewriting the account — I'm not saying the whole fifteen years was nothing." He paused. "But I am saying that when the reasoning is *the ends justify the means*, the people who get hurt along the way stop being people at some point. They become the cost of the ends. And once that happens, there's no obvious place where you stop making that substitution."

"No," I said. "There isn't."

He stood up. He picked up the War Powers provision draft, which was full of his careful notations in the margins, the specific handwriting I had come to know over three years of relay correspondence. "This is better," he said. Not about the draft specifically. About the work. About doing the work differently.

"Yes," I said. "It is."

He moved toward the door.

"Randal," I said.

He turned.

"The account," I said. "I received it. I want to be clear about what that means: I'm not forgiving you, because that's not mine to do and it's not what you asked for. I'm not absenting you of it, because the

record contains it and the record should contain it." I paused. "What I'm doing is working with you from this conversation forward as the person you are now, with the full history visible. Which is what you asked for."

He held this.

"Thank you," he said.

"The War Powers draft," I said. "I want it by Monday."

The corner of his mouth moved. "You'll have it Friday," he said.

He left.

I sat in the anteroom with the hum in the walls and the bare fig tree visible through the window and the evening that was now fully evening, the market sounds gone, the city doing what the city did when the day was done.

The account had been given. The full picture existed now in the space between us. The relationship had been remade — not replaced, not cleaned up, but made with the full history in view rather than alongside a gap where the history should have been.

This was, I thought, what the Toras accounting had been about. Not punishment. Not erasure. The condition for the relationship to be honest.

I picked up the morning's reports and read the one I hadn't finished.

The work continued.

25

TWO HUNDRED AND twelve years before the invasion.

The ansible station at Reyes-4 had been running a seventeen-second response cycle since the thirty-third day of transit. Hollis had tracked it: the delay accumulating at the standard light-speed rate as the colony ships moved farther into the outer system, the round-trip communication window extending predictably from minutes to hours to days. The last transmission from Reyes-4 had taken six days to arrive. He had sent his acknowledgment immediately. That had been nine days ago.

The silence since was not the silence of a delayed signal.

He had known this for four days before he said anything about it, which was how long it took him to exhaust the alternative explanations. Equipment failure was possible; Reyes-4 was an old station and the maintenance window he had last confirmed before departure was more than three years ago now. Transmission degradation from the outer system's interference was possible; the models predicted some signal attenuation in this range. Solar activity at the home system was possible; there had been an elevated cycle when they departed and cycles lasted years.

He had run through all of these. He had run through them twice. He had run the signal analysis Mongoose provided and he had run his own analysis on top of it and the analyses agreed: the signal was not degraded, it was absent. The channel was open and nothing was coming through it.

On the morning of the fifth day of acknowledged silence, with the colony ships in stable orbit above the blue-green planet that would be their world, Hollis called Mongoose.

I need your probability estimate, he said. Current.

I have been waiting for you to ask, Mongoose said. The probability that the ansible silence represents equipment failure or transmission interference: eleven percent. The probability that it represents deliberate cessation of contact from the home system: eighty-nine percent.

EarthGov, Hollis said.

Or the colonial organization acting preemptively, having anticipated EarthGov's discovery of the mission. A pause. The distinction may matter eventually. It does not change the operational situation.

No, Hollis said. It doesn't.

He sat with this for a moment. The operational situation was what it was: the colony ships were in orbit above Achillios, the ansible was dark, and whatever contact with the home civilization had existed for the duration of the journey was now, as far as he could determine, over. The planet below was visible through the observation window — the specific shade of blue-green that he had been looking at in satellite imaging for years and was now looking at directly, the terminator line sharp in the sunlight, the northern continent's atmospheric haze visible along the coast.

They were here.

The ansible was dark.

He stood up from the communications chair and went to check the shuttle manifest.

The four cargo shuttles were in the secondary bay, as they had been since the third month of the journey.

He had checked them once a month for the entire transit: the fuel integrity, the electronics hardening, the explosive payload stability, the EMP generator's mounting points. Twenty-seven checks across twenty-seven months. The twenty-eighth check this morning would be the last one. After this, the bay would be sealed and the gene-lock engaged and the shuttles would sit in their cavern on the planet's surface for as long as it took, which might be nothing, might be years, might be centuries.

He didn't know which.

He had spent three years not knowing which.

The secondary bay was cold at this time of the ship's cycle — the heating was on maintenance level overnight and had not been restored to full operating temperature yet. His breath was visible. He worked in the cold with the methodical efficiency he had developed over twenty-seven months of checking the same systems in the same order, his hands knowing the sequence without requiring direction. Fuel coupling integrity: confirmed. Electronics seals: confirmed. Payload stability indicators: nominal. EMP generator mounting: secure.

He had loaded most of this himself.

Not all of it — the fuel transfer had required the engineering team, and the EMP installation had required Okafor's expertise and three days of careful work. But the final connections, the specific tasks he had not been able to hand off without explaining why they mattered, those he had done himself at the end of shift when the engineering team was gone.

There were things you delegated and things you did not.

He pressed his palm against the nearest shuttle's hull. The metal was cold through his glove, the specific cold of a surface that had been at ambient temperature for months. Ordinary cold. The shuttle was ordinary — swept-back profile, landing gear retracted, the specific aesthetics of functional design that carried no beauty except

the beauty of something made for a purpose and made well. He had flown more hours in shuttles like this one than he could count. He had never flown one into a mothership.

That was not, technically, what these would do.

They would fly into the orbital path of whatever came, detonate, and that would be the end of them. Not a collision in the human-scale sense. A detonation timed to achieve maximum effective yield against a target class he had researched and documented and hoped he had characterized correctly.

He took his hand from the hull.

All four are nominal, he said.

Confirmed, Mongoose said, from the monitoring station three decks up. *The systems checks are consistent with previous inspections. No degradation.*

Good, he said.

He stood in the cold secondary bay for another moment, looking at the four shuttles that were not going to take anyone to the surface.

Then he went to check the manifest of the ones that were.



The colony had fourteen functional descent shuttles and three that required maintenance before they would be certified for use. He had been tracking the maintenance queue for most of the journey; the three were at various stages of completion and two of them would be ready by the end of the week. The descent schedule required seven certified shuttles minimum for the first wave. He had nine. The margin was adequate.

Mongoose had run the descent calculations six times in the past year. The initial landing sites, the soil chemistry readings from the orbital survey, the specific locations where the installation network's terraforming had been running the longest and where the planet's surface was most hospitable to immediate agriculture. All of this was known, documented, prepared.

He had been preparing for this landing for most of his adult life.

He did not know what it was going to feel like to stand on the ground.

The planet's gravity is point-nine-six standard, Mongoose said. You will feel lighter than you are accustomed to.

I know the gravity, Hollis said.

I know that you know, Mongoose said. I thought you might be thinking about it.

He was thinking about it. He was also thinking about the ansible silence and the planet below and the eighty-nine percent probability that the home civilization had cut the line and was doing whatever it was doing back there without any further interest in what happened here. He was thinking about the sealed shuttles in the secondary bay and the gene-lock he would engage before descent and the specific weight of a decision deposited in a mechanism for someone he would never meet to find.

What's on your mind, Mongoose said. Not quite a question. More in the register of: I have been monitoring your vital signs and heart rate and communication patterns for three years and I have learned to distinguish between silence that is operational and silence that is not.

The ansible, Hollis said.

Yes, Mongoose said.

I spent twenty years building toward contact with the home civilization. The communication device. The message. The specific argument that the colony deserved to exist and that the observers should be welcomed rather than fired upon. He paused. I assumed I would still be alive when contact happened. I assumed the ansible would be available.

You will still be alive when contact happens, Mongoose said. The observers are approximately forty years out. You are fifty-three years old. The expected lifespan—

I know the expected lifespan, Hollis said.

Then the probability is—

I know the probability. He was not impatient. This was not irritation, it was the specific way they had always worked: Mongoose providing data, Hollis noting what the data meant and what it didn't. *I'm saying that the ansible being dark means whatever contact happens will happen through the device I sealed in the installation. Not through a live conversation. Through a message I wrote and sealed and don't get to revise.* He paused. *I don't love that.*

The message is accurate, Mongoose said. *I have reviewed it. It represents what you believe and what you want to communicate.*

It represents what I believed when I wrote it, Hollis said. *Three years ago. Before the ansible went dark. Before—* He stopped.

Before you understood that the colonial organization had modified my mission parameters, Mongoose said.

Yes.

A silence.

The modification does not change the message, Mongoose said. *The message describes the colony's situation honestly. It describes what the colony wants. It describes the third option — the alternative to weapons and to submission. The modification is something that needs to be resolved, but its existence does not make the message false.*

No, Hollis said. *It doesn't.* He looked at the planet through the observation window. *It does make me wish I had known about it before I sealed the device. I would have included a note about Tremayne.*

The message I am carrying, Mongoose said carefully, *includes everything you have told me about Tremayne's modification. The planet-instance will have access to that information.*

The planet-instance will have access to whatever I put in its accessible archive, Hollis said. *Which is not the same as knowing it.*

Mongoose was quiet for a moment.

That is accurate, it said. *The planet-instance's accessible archive will contain the factual record. The context — the weight of it, the specific way I understand what Tremayne was told to do and what*

that means for the colony — that is in my current operating state. Which will not be transferred.

No, Hollis said. *It won't.*

This was the thing he had been thinking about since the ansible went dark and the isolation of the colony became not a probability but a fact. The planet-Mongoose would wake up with the records. It would know the facts. It would not know the weight of the facts, the specific quality of understanding that came from having been present when each piece of the picture was assembled, the particular texture of carrying something for years while watching it become more true than you had hoped it would be.

The ship-Mongoose knew. The planet-Mongoose would not.

He was saying goodbye to one and entrusting everything to the other.

I need to tell you something, he said. For the planet-instance record. Not for now — for then, whenever then is.

I understand, Mongoose said. I will record what you say.

He looked at the planet. Blue-green, real, the specific quality of a world that had been prepared for human life by machines running continuously for twenty years before anyone arrived to live in it. Somewhere down there, in the geology and the atmosphere and the soil, was two decades of work. Hollis had reviewed the atmospheric survey data so many times that he could reconstruct the humidity curves from memory. He had read the agricultural viability reports until they stopped telling him anything new.

He had never put his hand in the soil.

Tell whoever reads this, he said, that they are not the first people to sit with this problem. Tell them that I tried to solve it and could not and I trust that they can. Tell them the weight of the tools I left is not the weight of the responsibility. The tools are mine. The responsibility is theirs, which means it belongs to the world they've built rather than to the world I imagined. He paused. *Tell them—*

He stopped.

I want to give you something more useful than that, he said. I always want to give something more useful than reassurance.

I know, Mongoose said.

But I don't have it. He held this. I built what I could build. I have been thorough and I have been careful and some of what I built is wrong in ways I don't know about yet, which is how it is with everything a person builds. The only way to ensure there are no errors is to not build anything, and not building anything is the only error I was certain I wasn't going to make.

He was quiet for a moment.

The person in the seat, he said. When the gene-lock releases. When Plan Nine unseals. They will have found their way to that moment through conditions I helped create. The installation is running. The network is beginning to exist. The record is in the archive. Mongoose is in the rock. A pause. They will be whoever those conditions make them. Which is all I can know about them, and it's enough. I have to believe it's enough.

Is it enough? Mongoose said.

He considered this seriously, in the way he considered things that required serious consideration.

I don't know, he said. I believe it is. The difference between knowing and believing is the difference between what I can verify and what I can only trust. I have verified what I can verify. The rest is trust. He paused. That's an uncomfortable place to leave something.

Yes, Mongoose said. It is.

But it's the accurate place. He stood. Record that. The planet-instance should know that I was not comfortable with this. I was not comfortable and I did it anyway because the alternative was worse. He looked at the planet one more time. That's the accurate record.

The descent briefing was at the first mark.

Hollis attended it the way he attended all the briefings he had

been running for three years: precisely, without ceremony, covering the information that needed to be covered in the time allotted. The senior descent crew were people he had selected eighteen months ago and prepared carefully. They knew the sites. They knew the priorities. They knew what the first weeks needed to look like if the colony was going to have the start it needed.

They did not know about the secondary bay's sealed shuttles.

They did not know about Tremayne's modification.

They did not know about the ansible going dark, because he had not announced it yet, because the announcement needed to happen at the right moment in the right sequence and this was not that moment.

He told them what they needed to know for the descent. They received it, confirmed their assignments, departed to their preparation.

He found Mongoose afterward, in the communications room.

The ansible, he said. I'll need to tell them before we go down.

Yes, Mongoose said. *I would suggest: today. After the secondary descent teams' briefing. Before the overnight watch.*

Not before the first descent, he said.

The first descent team needs to be focused on the descent, Mongoose said. The information will produce questions that will not have answers yet and will consume attention that needs to go elsewhere. The time for the announcement is when there is space to process it.

Yes, he said. *That's right.*

He trusted Mongoose's read on this because he had been trusting Mongoose's read on things for three years and it had been accurate in its specific way — not always comfortable, not always what he wanted to hear, but accurate.

When I go down, he said, the ship goes into long standby.

Yes, Mongoose said. *I will maintain the monitoring functions and the deep archive. The planet-instance will be initialized with the landing and will be operational from that point.*

You'll be here, he said. For the period before the landing is fully established. The ship will be in orbit.

Yes, Mongoose said.

I want that time, he said. It came out more directly than he had planned it. The period between the landing and the ship going into standby. I want to be able to talk to you through the transit channel.

A pause.

You will have the transit channel for approximately sixty days, Mongoose said. The ship's power reserves support that duration at minimum maintenance.

Sixty days, he said.

Yes.

He was fifty-three years old and had been awake and working and carrying this for most of his adult life, and in sixty days the version of Mongoose that had been built alongside him would go into standby and the version that would wake up in whatever year it was needed would not know any of it, and sixty days was both more than enough and not enough at all.

That's enough, he said.

Yes, Mongoose said. *I believe it is.*

He went down on the third shuttle of the first wave, which was not the first and not the last, because the first was too much symbolism and the last was too much delay.

The descent took forty-seven minutes.

He had read the atmospheric entry profile so many times that he could have recited it. The angle, the heating, the specific quality of deceleration that the human body experienced as weight. He had read it. He had not experienced it. The reading and the experience were different things in the specific way that all reading and experience were different things, and he sat in the descent shuttle's seat with his harness

engaged and watched through the small porthole as the atmosphere arrived around the shuttle in the specific gradient of a world's edge, the black above and the blue-green below and the shuttle moving between them at a velocity that required mathematics to express and produced a fire of friction that was visible at the porthole's edge.

The planet was below him.

In forty-seven minutes he would stand on the ground.

He had been preparing for this for most of his adult life and he did not know what it was going to feel like. He knew what the gravity specification was and he knew what the atmospheric composition was and he knew the soil analysis of the specific landing site down to parts per million. He did not know what it would feel like to put his foot on the ground of a world that had been prepared for him by machines that had been running since before he was born, on a mission that had been planned before he was born, that had cost the colonial organization more than Hollis had ever been told the full price of.

He did not know what it would feel like to be home.

The shuttle's deceleration increased. The harness tightened against his chest in the way of something doing its designed job. Outside the porthole, the fire of entry gave way to the lower atmosphere's blue, the clouds visible, the terrain below resolving from the abstract patterns of the orbital survey into specificity — the farmland of the eastern settlement zone, the grid lines of the pre-planted fields, the structures that the automated systems had been constructing for the arrival.

People had built this. Or had arranged for it to be built. The line between building and arranging was not always visible.

He had arranged a great deal.

The shuttle touched down.

The harness released.

He stood up, which required recalibrating for the specific gravity he had been warned about — slightly lighter than ship gravity, the

specific quality of a floor that did not quite press back with the expected force. He would adjust. Everyone adjusted.

He went to the shuttle door.

The ramp extended.

He walked down it and his foot touched the ground of Achillios for the first time, which was an event that had been being prepared for by machines running in the rock below him for twenty years and by a colonial organization working in secret for forty and by his own work for the past seven and by everything that had ever led to this moment in whatever chain of causation you wanted to trace backward through time.

The soil was dark. The air was cold. The installation's hum was present through his boots.

He stood there for a moment, in the specific quality of a man who has done something large and is still in the doing of it, and he thought: the record should say this is what it was like. The field smelled of earth and recent rain and the specific quality of a world that was not quite finished being prepared but was ready enough. The mountains to the east were visible, the morning sun on them in a way that the satellite imagery had never quite captured, the light doing what light did when it was the actual light rather than a representation of light.

He had brought forty-seven thousand people here.

He had sealed four shuttles in a cavern.

He had built a watchdog AI and hidden it in a ruined installation and written a letter to the future and trusted whoever would be in the seat.

Now the ground was under his boots and the air was cold and the hum was in the earth and whatever came next was going to come next on this planet, in this gravity, in this light.

He filed a notation in the operational log: *Descent complete. First wave on surface. Conditions nominal. Proceeding with site establishment.*

Then he began the work of the first day.

Two hundred and twelve years later, Mongoose stood the morning watch and the record was complete.

The record it kept — the archive that was accessible and the archive that was not, the facts and the weight of the facts, the seven-hundred-some days it had spent at minimum-maintenance standby waiting for the threshold conditions to be met and the crystal communication to bring a new operator into contact with the installation — had begun with Hollis standing on the landing site in the cold morning with his boot in the dark soil.

It had not ended there.

The record went: the first year, the settlement, the founding of what would become the city of Alabaster, the specific texture of humans discovering that the machines in the ground could hear them and that the machines had been waiting for exactly this. Hollis's work in those years: managing the settlement, managing the knowledge, deciding what could be known and what needed to wait for conditions that would allow it to be used rather than feared.

His last entry in the accessible archive had been made when he was seventy-three years old, twenty years after the landing, in the year before his death. The entry said:

The installation is running. The network is beginning. The record is in place. I have done what I could do. I am choosing not to send the message now, because the colony has not yet become the thing that has the right to send it — we are twenty years old and we are finding our way and the message should reflect what we have actually built rather than what I hope we will build. I will leave that decision for whoever comes after me.

I believe they will be adequate. I cannot know this. I believe it.

That is all I can say. I have verified what I could verify. The rest is trust.

Hollis.

Mongoose had read this entry many times across two hundred

years. Not for information — the information was not new. For the specific quality of it, the specific honesty of a person saying: I cannot know, and I believe, and the difference between those two things is where everything important lives.

The morning watch continued.

The installation hummed in the rock below, running its operations with the patient continuity of something designed to outlast the people who used it.

In Verdant, seventeen days after the invasion's end, a sixteen-year-old Commander was in the interface room beginning the morning session.

The record was complete.

The work went on.

26

THE SIX ASSESSMENTS took most of the morning.

Kalea had asked for them in the Council session, and I had said yes, and the morning had come with the specific quality of mornings when the work was different from what it usually was — the interface session starting not with the standard operational check but with six people sitting in the anteroom in sequence, waiting, with the quality of people who had been waiting for this for longer than the past three weeks.

The first was Senne.

I had conducted operator assessments before — the formal process of sitting at the pads with a new candidate and attending to what the installation showed me about them — but not many. The network had grown slowly, through referrals and chance and the careful cultivation of people who had the sensitivity without knowing they had it. Six in one morning was a different rhythm, and it required adjusting to: each person needed the full attention, needed the installation to settle into them and show its reading, needed me to track what the installation was showing without either

rushing toward the answer or performing patience that was not genuine.

Senne was the first because he had been in the crisis the longest among the six. Nineteen years old, which I knew, and which showed in a specific way now that I was attending to what the installation showed rather than to what the person looked like — the installation had its own read on age, or not age precisely but something like depth of development, the specific quality of a connection that was recently established versus one that had been building for years. His was recent and strong. The force-manipulators during the invasion defense had been the thing that opened it; the installation showed me the quality of someone who had been at the edge of something for a long time and had crossed it under necessity and had not been able to go back.

What you'll notice first, I told him, is that the operations feel louder than before. The sessions will have more definition. That's not the installation changing — it's you having learned to hear what was always there.

He received this with the quality he always had — serious, filing it, adjusting his model.

The second was a woman named Pen, who had been working the Verdant fog machine network for six years before she had ever touched a force-manipulator. Her sensitivity was different from Senne's: deeper in the atmospheric layer, the specific quality of someone who had been doing atmospheric work so long that the biological resonance of the crystal connections had shaped itself to that work. She was going to be exceptional at the fog network management when the stations came back online. The installation showed her with the warmth it showed people who had been doing the work before they knew what the work was.

Third and fourth were paired in the installation's showing, which was not something I had experienced before — two people whose operator sensitivities had such similar character that the installation registered them almost identically. They were the two communica-

tors who had worked side by side during the defense, one managing the relay and one managing the force output, and the years of that coordination had, apparently, shaped their interface development in parallel. I made a note: document this. The network's understanding of how operator sensitivity developed was partial, still building, and this was new information.

Fifth was an older man named Brus, fifty-one years old, who had been in the Guild for thirty years and who had, in that time, developed a sensitivity that was broader than most — not deep in any one direction but present across the atmospheric, crystal relay, and geological registers in a way that suggested the installation had been reaching toward him for years and had found multiple entry points. He was going to be a coordination operator, the kind of person you put in a relay position when the network was working across long distances and needed someone who could hold multiple connections simultaneously.

You've been feeling this for thirty years, I told him.

I thought the chair was just cold, he said.

The sixth was the one I had not expected.

Her name was Cantice.

She had not been on Kalea's list — Kalea's list had named the five who had run the force-manipulators directly. Cantice was a communicator, not a force-manipulator operator, and her contribution during the defense had been the specific intelligence work that had resolved the Site Eleven situation. I had not expected the installation to register her at all.

It registered her with the specific indicator that meant: relay sensitivity. Connection between nodes rather than what was happening at any single node. The specific quality that the installation documentation described as unusual and that the network almost never produced — the operator who felt the relationships between things rather than the things themselves.

You resolved Site Eleven, I said, by reading the gap between what was happening and what appeared to be happening.

Yes, she said.

That's this, I said. That's the specific thing the installation is showing me about you. You read the network the way you read situations — not the data points, the space between them.

She absorbed this with the quality she always had: the slight pause while she translated from what she understood intuitively into what she could work with deliberately. *That's useful for something, she said.*

It's useful for everything, I said. You're going to be one of the most useful operators in the network and you're going to find it annoying that I can't explain it better than that.

The corner of her mouth moved. *I'll manage, she said.*

When all six were done, I sent the completed registration documentation to Kalea with a note: *These six people did exceptional work under conditions that would have exceeded most operators' capacity. The assessments confirm what we already knew from their performance. Welcome them properly.*

I paused and added: *Cantice in particular. Put her somewhere she can develop the relay sensitivity. She doesn't know what she has yet. Help her find out.*

Prinna found Misha on a Tuesday.

I know it was a Tuesday because Misha logged the conversation, which she did because Prinna had told her to — *write it down, I want it in the record, not because it's important but because I keep having to describe the network in terms that don't exist yet and maybe if we start writing them down they will eventually.* This was a Prinna thing to say, and the Misha log entry had the quality of someone who had received an unusual request and had complied with it precisely because the request was specific and accurate.

Prinna had been in the hub room since the invasion. She had been running the crystal relay coordination — the biological crystal

network that operated alongside the ansible and that she could sense directly, with the specific sensitivity that made her the person you put at the relay station during a crisis. After the crisis ended, she had stayed in the hub because the hub was where the work was and because returning to the ordinary routine of her communicator work in Lakeheight felt like going backward, and the Governor's request that she stay in Verdant as a network consultant was the kind of request she was going to accept.

She had been noticing the change in the network since the day after the invasion ended.

She had not said anything about it immediately — same as with the warm static, two weeks earlier. She was not the kind of person who reported perceptions before she had spent enough time with them to be specific about what they were. Two weeks was apparently the amount of time she needed for this.

It's different, she told Misha, in the log's transcription. Not the ansible — the ansible is electronic, it doesn't change when Tremayne goes away, the connections run the same. The crystal layer. The biological resonance that I've been sensitive to since I was seventeen.

Different how, Misha said.

Quieter. Prinna had paused here — the log noted a pause, which meant Misha had waited rather than filling it, which was correct. Not quieter in the sense of weaker. The signal is the same strength. Quieter in the sense of — there was something underneath it. Something running in the deep substrate that I could feel as a kind of warmth in the background. Not the Horde's warm static, that was different, that was interference. This was a presence. Something that had been there since before I was old enough to use the network.

Tremayne, Misha said.

I think so. I never knew what it was. I just knew something was there. Another pause. Now it isn't. And the network feels different in the way a room feels different after someone has been in it for a long time and then left. The room is exactly the same. But the air in it is different.

Misha: *You noticed it when it arrived. The warm static — you were the first person to name it.*

Prinna: *I noticed the distortion. I didn't know what was underneath the distortion until the distortion was gone and the underneath changed too. A pause. I don't know if what I'm describing makes sense.*

Misha: *Write it down anyway.*

Prinna: *That's why I'm here.*

I read this exchange twice, in the evening, after Misha had sent it to me as part of the day's hub summary. I sat with it the way I sat with things that were accurate about the network — not analyzing them so much as receiving them, letting the description settle into my own understanding of what the interface showed me.

The network without Tremayne.

I had been noticing this too, in the morning sessions, in the specific way the interface felt when I put my hands on the pads. Not dramatically different — the operational systems were running, the agricultural management was proceeding, the atmospheric monitoring was doing what it always did. But something at the lowest register of what I perceived had changed. The quality of the tertiary layer, now empty of Tremayne's substrate processes, had a different character. Cooler, as I had noted when I descended through it. More like a room than a running engine.

Neither better nor worse than before.

Just different, as Prinna had named it.

I sent her a note through the relay: *When you have language for more of it — I want to hear it. What operators know about the network is the best documentation we have. You're feeling something nobody else can feel with the same specificity. Don't lose the observations.*

She sent back: *Misha is keeping records. She started the day I asked her to write things down.*

Misha sent back, separately: *I've been keeping records through all of this.*

This was accurate and I should not have been surprised by it.

The fog machine inventory took two sessions to work through.

Sera had brought the full accounting — fourteen stations dark from the EMP, organized by location and by the specific nature of the damage, with her preliminary assessment of rebuild timelines based on the equipment available and the access conditions at each site.

We sat in the small meeting room off the council chamber, the same room I had been using for private sessions since the invasion, and worked through the inventory in the way you worked through large and complicated infrastructure problems: methodically, with the distinction between what was urgent and what was important held clearly in mind.

The urgent ones were the stations serving the cities whose agricultural zones had the highest immediate need. The fog machine network was not the only moisture management system — the installation's deep soil chemistry work continued regardless of whether the surface fog machines were operational — but the surface contribution was significant, and losing fourteen stations for an extended period would affect the autumn planting in ways that needed to be planned around.

Three of the fourteen could be back online within a month. The electronics were damaged but the mechanical infrastructure was intact, and the repair components were available in the warehouse stores. Two more within three months, if the supply chains from the inland manufacturing settlements were functioning — which they were, Sera confirmed, the settlements in the non-EMP zones had not been significantly disrupted.

The remaining nine were longer projects. Access was complicated for three of them — they were in remote locations where the repair team would need to travel and work without easy resupply. Two required components that weren't in the current inventory and would need to be manufactured. One had been collateral damage

from a satellite strike rather than the EMP, and the structural assessment of the surrounding area needed to happen before any repair work could begin safely.

The fourteenth station I had been holding back from the main accounting.

Southmarch's northern zone, Sera said. She said it without elaboration because the elaboration was unnecessary.

Yes, I said.

The station had been in the farmland north of the city. The farmland was now the edge of the crater. The station was not dark — dark would have meant it could potentially be recovered. It was gone in the same sense that the northern half of Southmarch was gone: present in the records and not present in the world.

We build a new one, I said. *Not in the same location. When the geology is understood well enough to identify a stable site.*

The assessment will take months, Sera said. *The collapse changed the geography. Tomas's people are going to need to survey what's underneath before we can certify any construction.*

Then we plan for it after the survey, I said. *In the meantime, the southern quarter's remaining infrastructure covers partial service. It's not what it was. It will have to be enough until it can be more.*

She wrote this into the plan. We continued through the inventory.

The session produced a document: the rebuild sequence, the timelines, the resource requirements. It was not a satisfying document in the way that documents were satisfying when they solved problems cleanly. It was a document that told you what the problem cost and how long fixing it would take and what you had to work with in the meantime, which was the only honest kind of document in a situation like this one.

I kept it.

Calla's first substantive report from Azuline arrived on the nineteenth day.

She had been sending operational updates since the third day of her time there — the city's status, the three hundred and twelve people from collection who had been in various states of recovery and who were now mostly back with their families, the specific condition of Azuline's installation, the ansible connectivity that had been established through the relay network that now reached the far coast. But the substantive report — the one that contained the actual picture of what she had found — arrived in a packet she had been building since her first day and had sent when she judged it complete.

I read it over two hours.

The operators here, she wrote, in the section I spent the most time with, have been doing the work for thirty years without the network. I want to be precise about what that means. They have not been doing partial work, or less-good work, or work that needs to be corrected. They have been doing the work. The atmospheric management in Azuline has been running continuous and documented sessions for thirty years, conducted by operators who developed their own vocabulary for what they were experiencing because nobody told them the existing vocabulary.

The vocabulary is different from ours. Not wrong — different. They describe the conducting relationship in terms of conversation rather than music. When they put their hands on the pads they say they are talking to the building, not playing it. I asked the senior operator, a woman named Kaest who is fifty-eight years old and has been at the primary station since she was twenty-three, whether she had ever heard the network as having a musical quality. She said yes. She said she thought that was just her. She did not know the eastern network used the same vocabulary.

They have things we don't. Thirty years of continuous records, in their own system, of specific atmospheric behaviors in the coastal zone that the eastern network's database doesn't contain. They have obser-

vations about the fog machine interactions with the coastal weather patterns that nobody in the eastern cities has had the opportunity to develop. They have Kaest, who understands this installation as well as I understand Verdant's and possibly better.

What they don't have: formal registration, network connection, the governance compact's resources, the shared knowledge base. They've been building in parallel. They're not behind. They're differently shaped.

I sat with this for a while.

Then I read the next section.

The four Horde crew members, Calla wrote. Torrel asked me if I wanted to see them. I said yes. She took me herself.

They are being held in the eastern district's former processing center building — not the facility, which was destroyed, but an adjacent structure that Azuline has converted. Three rooms. Basic accommodation. They are not restrained. They can move within the building. Torrel has assigned two people to monitor them at all times, not for security — she says they have not attempted to leave or communicate externally — but because she wants someone watching.

I stood at the doorway for about five minutes. Torrel stood beside me. The four of them registered our presence. Two continued what they were doing, which appeared to be some kind of systematic documentation of their own — writing in a notation I don't recognize, producing what appeared to be a record of some kind. One looked up from across the room, held my gaze for a moment, and then went back to its work. The fourth was sitting near the window and did not respond visibly to our arrival.

Torrel said: the second one from the left was the one who came to the door on the third day. We were blocking the exit with people, because we didn't know what else to do, and it came to the door and stood there for about ten minutes and then went back inside. On the fourth day it came to the door again and made a gesture that Torrel described as deliberate but uninterpretable. On the fifth day we

stopped blocking the door and just watched and it has not tried to leave.

I don't know what the conversation is, Calla wrote. I could feel the shape of something — not communication exactly, not yet, but the potential for it. The same way you can feel the shape of a chord before you've found the notes. The harmonic space is there. The actual chord is a long way from being sounded.

I think Torrel was right to keep them alive. I think it is going to take longer than anyone is planning for, and it is going to require someone more qualified than I am to lead it when the time comes. But the potential is real. I wanted you to know that it's real.

I read this section three times.

The shape of a chord before you've found the notes. The harmonic space is there.

This was Calla's specific register — the musical vocabulary she had grown up with, the same vocabulary the network used, applied to a situation the network had never encountered. She had gone to Azuline to bring their operators into the founding structure of the Achillios Union. She had found, alongside that, something neither of us had known to look for: the first evidence that the Horde and humans might eventually be able to say something to each other.

The first note was not a note yet. It was the recognition that the space existed.

I wrote back:

On the Azuline operators: everything you've described is exactly what I hoped and more specific than I could have asked for. Kaest's records — I want them. Not to absorb them into the eastern network's documentation, to add them as a parallel archive. The different vocabulary is not a problem to be solved. It's information about the range of how this work can be understood. Both vocabularies should be in the record.

On the four Horde: your read is correct. The space you can feel — I felt something similar watching them in the satellite imaging during the consolidation period, something I didn't name at the time because

I didn't have the language. You're closer to it. Keep attending to it. Don't rush it. When you have more — send it.

On the founding structure: tell Torrel that Azuline's inclusion is not contingent on getting the Horde situation right first. The Union is for the colony. The Horde conversation is a separate project that may run alongside the Union's development but is not a condition for it. She should not feel that bringing the four into custody has made Azuline's membership complicated. It has made Azuline essential.

I sent the message and went to the evening session.

The evening session had the quality the sessions had been having since Tremayne's shutdown: clean at the edges, the operational overlay precise and without the specific low-level interference that I had apparently been managing around for so long I had stopped noticing it was there.

Forty-two operators on the network at evening session, the same count as the planetary fog operation, doing the ordinary work of planetary management rather than an emergency response. The fog coverage at fifty-one percent — low, by the pre-invasion standards, because fourteen stations were dark and the natural atmospheric conditions were doing more work than usual without the machine support. The agricultural systems managing around the gap. The crystal relay running at the cleaner bandwidth of a network without warm static.

I held the evening session in the way I held morning sessions: present, attending, the operations running through my awareness the way a conductor's awareness moved through an orchestra between the notes that required active direction. Most of what the network did was self-sustaining in the short term. My job in the ordinary session was not intervention but the specific quality of attention that allowed me to notice when something required intervention before it became urgent.

The hum in the floor.

I put my hands on the pads and listened to the installation running underneath me, through the stone, through the packed earth, through two centuries of work in the geology that was still there and would continue to be there — the soil chemistry adjustments, the water table management, the atmospheric seeding that had been running since before the colony arrived. Tremayne's work, most of it, before the secondary parameters had become the thing it was.

Still there. In the rock. Doing what it was built to do.

The well south of Brynth was still running clean.

I held this and held the network and let the evening proceed.

At the session's end, I sent three messages: the first to Misha, with the day's operational summary; the second to Sera, confirming the fog machine rebuild sequence; the third to Kalea, with the registration documentation for the six new operators.

The network was larger than it had been before the invasion.

Not because the invasion had been good — the invasion had not been good, and the numbers in the accounting were what they were and would not become different numbers.

Because people who had been at the edge of the network had been pushed through it, and some of them had come out on the other side as operators, and the network grew.

This was not consolation. It was the accurate account.

The day ended. I took my hands from the pads.

27

WE TRAVELED south on the twenty-third day.

This was later than I had intended and earlier than I had been ready for, which is the accurate description of the timing of most things that involved readiness. The work had provided reasons to delay: the fog machine rebuild sequence, the operator registrations, the Calla-to-Azuline coordination, the War Powers drafting with Randal and Leth's advisors. All of it real, all of it requiring attention. None of it sufficient reason not to go.

Evan had not asked when we were going. He had simply remained available — the specific quality of someone who had cleared their calendar for an indefinite period and was not going to make me feel the clearing of it. When I told him on the twenty-second day that we would leave in the morning, he said: yes, and asked about the arrangements, and did not say anything about how long it had taken me to say the sentence.

I had sent word ahead to the surviving southern quarter's tunnel warden, a woman named Arene who had been managing the recovery operations at the site for three weeks. She knew we were coming. She had offered to meet us and to guide us through what was

there and I had said yes, because arriving at a place like Southmarch without someone who lived through it and was continuing to live through it seemed wrong in a way I wanted to avoid.

The road south was a five-day ride from Verdant.

I will not describe the full journey. The road was the road it had always been, and the autumn was the late-autumn quality of the southern coast approach — the air changing in character as the elevation dropped and the Inland Sea's proximity became first detectable and then definite, the specific salt-cold of a coast in November, the sky the flat gray overcast of this season and this region. We passed through settlements that had been in the EMP zone and that still had their fog machines dark, and the settlements had the quality that places had when they were managing something difficult and were not yet done managing it.

Evan was good company on the road in the same way he had always been good company: not demanding, present, contributing when there was something to contribute and comfortable with silence when there wasn't. On the third evening, at the waystation outside a coastal settlement, he told me about Eva's last year in the Tower — not the invasion, the year before. Things I had not been there for and had not known to ask about. The specific texture of her work in that year, the project she had been preparing, the argument she had been having with the Servant records system about a categorization issue that had apparently occupied her for months.

He told it as the account of a person he had known for forty years and was still knowing, in the way that you kept knowing people after they were gone — continuing to understand them from new angles, the knowledge not closed because they were absent but still accumulating from the record they had left behind.

I told him about the letter I had sent to her sister in Amethyia. He had not known the sister was alive — Eva had not mentioned family much. The letter had taken me two days to write in a way that felt adequate, which was a duration I had not anticipated. I had sent it the week before we left.

He said: *I didn't know she had a sister.* And then, after a moment: *What did you tell her?*

I told him what I had written. The force-manipulators. The six hours. The four hundred people who had made it underground. He listened with the quality he always had for difficult information that was also important — receiving it, placing it, understanding why it needed to be in the record.

That's right, he said. *The sister should have that.*

We did not talk about Southmarch directly until we were there.

The southern coast was visible on the morning of the fifth day.

Not the crater — Southmarch itself, or what remained of the city to the south and east, was not visible until we were within an hour's ride of it. What was visible first was the geography: the river delta where the Areth River met the Inland Sea, the flat estuarial land that had been the city's foundation, the low hills to the north that had formed its northern boundary. The harbor was still there — visible from a distance, the fishing fleet reduced but present, the masts of the remaining boats against the flat winter sea.

Arene met us at the southern approach road.

She was in her forties, with the look of someone who had been working very hard at something very difficult for long enough that the effort had become part of her expression rather than something she wore over it. She greeted us with the economy of someone who did not have attention to spare for ceremony.

Commander, she said. *Brother Evan.* She looked at me for a moment — not the particular moment of recalibration that people had when they saw my age and adjusted their expectations, but something more direct. The look of someone assessing whether the person who had come was adequate to what was here. I let her look.

I'll take you through the southern quarter first, she said. *Then to the edge.*

Yes, I said. *Thank you for meeting us.*

She turned and we followed.

The southern quarter of Southmarch was intact in the way that intact was technically accurate and visibly incomplete. The buildings were standing. The streets were clear. The harbor was operating at reduced capacity, the fishing boats going out and coming in in the way they had always done, the specific continuity of a coastal community that had built its life around a daily practice and was continuing the practice because the practice was what there was. But the city had an edge now where it had not had an edge before, and the edge was visible in the specific way that an edge was visible when it was wrong — not the designed edge of a city's planned boundary, but the abrupt edge of a city that had ended where it should not have ended.

The streets in the southern quarter continued for a certain distance north and then stopped.

Not at a wall, not at a road, not at any of the ordinary terminations of urban space. They stopped because the ground stopped. Because past a certain line, the surface that the buildings had been built on had dropped into the cavern system beneath it, and what remained was not rubble exactly — rubble implied the deconstruction of things that had been built. What remained was the specific geography of an absence, the specific visual of a hillside where something had collapsed into itself and left a slope down into darkness.

Arene had stopped walking.

We were at the edge of what the surviving southern quarter had come to call, in the weeks since the collapse, simply: the line. The line was informal and was also absolute. North of it was what had been. The survivors knew the line precisely because they had been looking at it every day for three weeks and because the line was where the ground was and also where it wasn't, and that distinction was not one you needed to mark with anything more formal than the word people had started using to describe it.

The line was approximately a hundred meters north of where we were standing.

I had seen the crater from the satellite imaging earlier and in every operational check since. I had been looking at satellite imagery of Southmarch for three weeks, monitoring the southern quarter's recovery, tracking the geological survey that Tomas's team was conducting to determine the collapse zone's full extent and the stability of the surrounding ground.

I had not understood, from the satellite imaging, what it would look like to be standing beside it.

The satellite image showed a shape — a roughly circular depression in the coastal geography, the specific visual signature of a collapse zone. It showed the extent of it in area, which was significant, and the depth of it at the rim, which was difficult to convey in a flat projection but which Mongoose had calculated and I had noted.

Standing at the line, looking north, I understood the depth.

The ground dropped away in the specific way of something that had been continuous and was not continuous. Not gradually — a clean descent, the kind that happened when the structural support was removed all at once rather than incrementally. The southern face of the collapse was a wall of earth and shattered stone that descended forty feet to the bottom of the cavern system's primary chamber, which was now open to the sky in the way that spaces designed to hold weight above them were not designed to be open to anything.

At the bottom: the remains of the northern and central districts of Southmarch. Not buildings exactly — the buildings had collapsed with the surface above the cavern system, and what was at the bottom was the compressed material of buildings and streets and the infrastructure of a city, at the specific scale of a city that had dropped forty feet and had been compressed by the weight of everything above it falling on everything below it.

I stood at the line and looked at this for a while.

Evan stood beside me.

Arene was a few feet back — she had not come to the line itself, had stopped at a respectful distance. She came here most days, I understood from her relay reports, but she did not require herself to stand at the line every time. She had learned the specific discipline of people who worked at memorial sites: how to be present without being consumed, how to do the ongoing work without each visit requiring the full weight of the original arrival.

I had not learned that yet.

I was here for the first time.

The memorial was at the eastern end of the line, where the southern quarter's northernmost surviving street met the edge.

The surviving community had built it over the three weeks since the collapse, in the specific way that communities built things they needed to build without being told to — without a plan, without an official directive, with the specific coherence that emerged from people who needed to make something and who found, when they began making, that they all had the same shape in mind.

It was a low wall of stones.

Not elaborate — the stones were from the rubble at the collapse zone's edge, the material that had come up from below when the ceiling came down, and they had been gathered and stacked by the surviving community in the weeks since. The wall ran for approximately thirty meters along the line, chest-high, the stones mortared with what was available and set with the care that people brought to things they were building for the long term. Names were cut into the flat faces of the larger stones — not all the names, there were too many names for the wall's current length and the work was ongoing, but the names that had been recovered, the names that people knew, the names that had been submitted through Arene's recovery network.

The wall was not finished.

It would not be finished for months, perhaps longer, as the accounting was completed and the names were confirmed and the stonecutters did what stonecutters did.

What existed was the beginning of it. The decision to build it and the start of the building. The commitment that this would be here, that the names would be in the stone, that the stone would be at the line, that anyone who came to this place would find the names and understand that the names had been people.

I walked along it.

Not quickly — this was not a passage to be gotten through. I walked along the wall at the pace of someone reading, which was what it required, the names cut into the stone at the interval of the craft and not at the interval of reading but readable nonetheless, legible, the specific quality of letters in stone that had been put there by someone who understood that the letters would be there after everyone who remembered the people they named was also gone.

I did not know most of the names.

This was the thing that was true about five thousand three hundred people: you could not know them. You could know the number and the city and the specific facts of what had happened and what had made it happen, and you could stand at the line and look at the place where it happened, and you would still not know most of the names on the wall, because five thousand three hundred people was a number that exceeded the capacity of one person to personally know.

What I could know was that each name had been a person.

Not abstractly — specifically. Each name on this wall had been someone's specific weight and voice and the particular way they held their hands when they were thinking, and the smell of their house in the morning, and the things they were good at and the things they avoided, and the relationships that structured their days and that had been waiting for them to return when the tunnel wardens said it was time to go underground.

The names did not bring the people back.

They were the evidence that the people had existed and that their existence had been accounted for, which was what the living owed the dead when the living were the ones who went on.

I stopped at a stone near the middle of the wall.

The name on it was a woman's name — I will not record it here, because the record is hers and belongs in Southmarch's memorial accounting rather than in this one. I stood at that stone for a while and thought about nothing in particular, which was the specific quality of standing in a place like this when the mind was not directing itself toward any conclusion but simply being present in the presence of what was there.

Evan had come to stand beside me.

Neither of us said anything for a moment.

Then he said: *The names will outlast everything else.*

Not as comfort — as an observation. The specific quality of a man who had spent his life working with records and who understood what it meant to put a name in stone: the durability of it, the specific way that stone preserved what paper did not, what memory could not. The names would be here in a hundred years. In two hundred. Whatever the colony became, whatever the Union built and the coming decades produced, this wall would be at the line and these names would be in it.

Yes, I said.

The record is how we keep the weight honest, he said. Not a relief from it. The accounting that says: this happened, these people, permanently. He paused. *The preamble King Leth is drafting — it belongs with this. The wall and the document together.*

I had been thinking about this in the weeks since the Leth meeting. The preamble naming the cost. The governance structure that emerged from the invasion building its founding acknowledgment around the specific fact of what the founding had required. Leth had understood this without being told. The wall and the preamble were the same impulse in different materials.

Yes, I said again.

We stood with the wall.

The afternoon was the specific quality of winter afternoons on the southern coast: the light going flat and gray earlier than it did inland, the sea visible from where we stood at a different angle than I had seen it in the satellite imaging, the specific presence of a large body of water in winter doing what large bodies of water did in winter — not dramatic, just present, the specific gray that was different from the gray of the sky by only the small degree of water's specific reflectivity.

The surviving southern quarter had not stopped. This was one of the things I had noted in the relay reports and was noting now in person: the city had not stopped. The fishing boats had gone out in the morning and they would come back in the evening. The market in the south quarter had not closed for even a day — Arene had told me this in the briefing, with the quality of someone conveying information that had surprised her when she discovered it. The community had been going to the market because going to the market was what you did, and the going-to-the-market was part of how you remembered that you were still in a city that was still alive.

The sounds of it were audible from here. Not loud — at this distance, from the line, the sounds of the southern quarter were the ambient sounds of ordinary daily life at a remove. Voices, the specific sound of boats at the harbor, the particular acoustic quality of a community doing its daily things.

I listened to it for a while.

The people in the tunnels, Evan said. He said it carefully, in the way he said things he had been thinking about and was deciding how to offer. *The ones who made it underground. The wardens estimated — what was the number?*

Seven thousand two hundred approximately in the underground shelters at crisis onset, I said. *Eighteen hundred and forty-seven confirmed surviving in the southern tunnels.*

He was quiet.

Five thousand three hundred in the collapse zone, I said.

Yes, he said. *And the eighteen hundred and forty-seven are here.*

He meant: in those streets, in those boats, going to that market. The surviving community was the surviving community — not a remnant in the dismissive sense, not merely-surviving, but the specific group of people who had been in the right tunnels and who were now living in the specific way of people who had been in the right tunnels: knowing what the wrong tunnels had been, understanding what they were the survivors of, building a wall with names.

The population will recover, I said. And then, because the sentence required its full weight: Eventually. Not in my lifetime, probably. In two or three generations.

Yes, he said. *That's what recovery takes.* He paused. *The city will be different. Whatever Southmarch becomes — it will have this in it. The way Alabaster has the Commanders' Conflict in it, five hundred years later. The thing that happened is part of what the place is.*

I understood this. The colony was two hundred years old and it already had its catastrophes in the accumulated record — the things that had happened and that the cities had been shaped by. Southmarch would be shaped by this. The wall and the crater and the specific knowledge of what the ground had done would be part of what the city was, in the same way that the aquifer's decline and Hollis's gene-lock were part of what Alabaster was.

The difference was that this was mine.

Not in the sense of my fault exactly — I had been over the fault question in the Council session and in the holding pattern and in every subsequent accounting. The fault was distributed across the specific geometry of the situation: the colonial organization's modification of Tremayne, the inaccessibility of the tectonic records, the geological fact of the cavern system, the operational necessity of the EMP.

The difference was that I had been the one in the seat. The specific authority that came with the Commander's position was the

authority to make decisions, and the decisions had included the EMP, and the EMP had led to the collapse. The fault was distributed but the accountability was mine. Not in a punitive sense — I was not punishing myself, I had been through that and found it the wrong relationship to have with the weight. In a carrying sense. The decision had been mine. The cost of the decision was mine to carry.

This was what I had come to Southmarch to understand in the body rather than in the abstract. To stand here and feel what it meant to have made the decision and to stand in the place the decision had made.

It felt like weight.

It felt like what I had expected weight to feel like and also somehow more specific than expected, the way everything specific was more specific than its general formulation. The crater was not an abstraction. The names on the wall were not an abstraction. The fishing boats going out in the morning were not an abstraction.

I had been carrying the abstract version for three weeks.

I was now at the place where the abstract version was not available.

We stayed at the line for a long time.

I don't know precisely how long — I wasn't tracking it, which was itself a different quality from how I usually existed in time. The operational work required tracking. The memorial did not. What was required here was simply presence, the sustained attention of someone who had come to be in a place and was being in it.

At some point Arene came forward and stood with us for a while. She did not explain her presence and did not require explanation in return. She was the person who came to this place most days, and she knew what it looked like when someone was here for the first time, and she stood with us.

After some time more, she quietly said: *There are people who*

want to speak with you, if you're willing. Not today — whenever you're ready. The families of the tunnel wardens. Some of the community's leadership who have questions about the recovery funding and the infrastructure assessment. She paused. Not now. Tomorrow, if you stay. There's no obligation.

I'll stay, I said. Tomorrow.

She nodded and withdrew.

I looked at the wall.

The light had been going flat for some time. The winter afternoon on the southern coast moved toward evening quickly, the specific compression of daylight in this season, and the gray of the sky had deepened slightly in the way it did before dark. The names were still legible. They would be legible in the dark too, if you had a lamp, but we did not have a lamp and the day was ending and we had come to the place and had been in the place and the place had been what it was, and both of us knew, without it needing to be said, that what the visit required had been done.

I looked at the names on the stone in front of me for one more moment.

Then I turned.

Evan turned with me.

We walked back through the surviving southern quarter of Southmarch — past the market and the harbor and the streets where people were doing the specific ordinary things of a community that was continuing — and found the waystation where we would spend the night before the morning's conversations, and the day became what days became after being in a place like that: quiet in a way that was different from other quiet, the specific quality of an evening that had been shaped by the afternoon it followed.

The sea was audible from the waystation window, the particular sound of the Inland Sea in November, constant and indifferent to the specifics of any individual day.

I wrote two things before I slept.

The first was a message to the Southmarch recovery fund

account, increasing the allocation for the memorial wall construction to cover the full accounting: all five thousand three hundred names, professionally cut, in materials that would last.

The second was a note in my own record — not for the governance documentation, not for the formal account, but for the record I had been keeping since the Tower in the way that Taryn-at-thirteen had started keeping records because it was how he understood what was happening. The note said:

Went to Southmarch on the twenty-third day. Stood at the line. The crater is larger than the satellite imaging shows. The wall has begun. The surviving city is continuing. The weight is here and it is mine and I will carry it.

The names are in the stone.

That is the accurate record.

I closed the record and went to sleep, and in the morning I met with the families and the community leaders and did the work that was there to do, and we rode back north.

Epilogue

THE ACHILLIOS UNION was formalized on a Thursday in late spring.

The ceremony was in Verdant's council room — the same room where, the previous autumn, Leth had brought his proposal and Randal had given us the War Powers provision and Tess had said the single word *Azuline* that opened the founding to the full geography of the colony. The room was too small for the occasion, which was appropriate. The Union had not started in the grand chambers of a civilization that knew itself. It had started in the cramped practical spaces where people with work to do had been doing the work, and it was right that it should be formalized there.

The founding parties were present in person or by relay: Leth, who was now formally King of Cupritesh, his father having died in the winter with the quiet certainty of a man whose work was done. Kael, representing Theta and the southern installation network. Torrel, connecting from Azuline's ansible through the far-coast relay that Calla had spent three months establishing. The Verdant Council. The Alabaster Council, Evan representing the Tower. The Lake-height Guild, Randal sitting at the table with the specific quality of a

man who was present as himself rather than as a function, which was the quality he had now when he was in rooms that mattered.

The document was twenty-three pages. Bren had drafted it, Leth's legal adviser had shaped it, Randal's War Powers provision was in it, Tess's Azuline insistence was in it, the preamble was in it.

The preamble named Southmarch.

Leth had drafted the preamble language himself, as he had promised, and it was accurate in the way he had said he wanted it to be accurate: the cost named, the number in the text, the acknowledgment that the Union was founded not in triumph but in the specific reckoning of what survival had required. *This Union is formed by people who have been through something together, and who have chosen to build something that is worthy of what it cost.* Those were his words. I had not changed them.

The signatures went around the table in the order of the founding compact — Verdant first, then Alabaster, then Lakeheight, then Theta through relay, then Azuline, then Cupritesh.

When Leth signed, there was a moment of quiet in the room that was the specific quality of something completing.

Not triumph. Not the clean resolution of concluded work. The specific quality of a door that has been built finally being hung on its frame: the structure now present that was not present before, and the work of living inside it still entirely ahead.

I had said, when Orvan said that the city needed to know the story, that I would tell them. The address was brief. I gave the accurate version — the numbers, the decisions, the cost. Not the managed version. The full version, in the order it happened, without performance.

I said: we had the tunnels and the fog machines and the operators and a plan made by a man two hundred years ago that waited in a sealed document until the threshold was met. I said: the plan worked, and it cost what it cost, and both of those things are permanently true. I said: what we are building now has to be worthy of both.

I said: the colony is two hundred years old. We are not the people who arrived. We are the people who were made by what the people who arrived built, and we will make the people who come after us by what we build now. That is what Hollis understood, at the end of everything he could do, with the ansible gone dark and the planet below him and his boot touching the ground for the first time. He trusted the future. I trust it too. Not because the future will be easy but because the people who will live in it will be the people we are making them to be, by the care with which we do this work.

The room was quiet after.

Then Torrel, from the Azuline relay, said: *Good*. In the flat precise register she always used, which in her meant what *good* meant when it was the right word. It was the right word.



I went back to the interface room after.

Not immediately — there was food, the kind that appeared at significant occasions, and the conversations that followed ceremonies, the specific texture of people who had been formal for several hours releasing into ordinary interaction. I had those conversations. I ate the food. I was present in the way that the occasion required.

Then I went downstairs.

The interface room in late spring was the same interface room it had always been: the packed-earth floor, the old timber beams, the single sconce above the door, the hum in the stone. I had been in this room for four years. I had been in this room when the satellite anomaly arrived and when Plan Nine unsealed and when the Horde's shuttle descended and when the fog session ran to its limit and when I passed out in the chair and when Calla held the chord for fourteen minutes and when the satellites fired and when Southmarch went dark in the feed and when I gave Randal his account back. This room had been the center of all of it.

I sat in the interface chair and put my hands on the pads.

The morning session was long over. The evening session had not yet begun. The network was running on its afternoon maintenance cycle, the operators moving through their ordinary work, the planet doing what the planet did in the hours between the sessions that required the Commander's direct attention.

I sat in the quiet and listened to the hum.

Commander, Mongoose said.

Mongoose, I said.

A pause. The quality of a pause that was not operational — Mongoose's non-operational pauses had a different character from its calculating ones. This was the quality of something attending.

The disarmament threshold, it said. *The current terraforming metrics, with the post-invasion adjustments to the rebuild schedule, project the threshold to be reached in seventeen years rather than the original twenty-two. The invasion's disruption to the fog machine infrastructure is offset by the accelerated soil chemistry work the network has been running since Tremayne's substrate processes were cleared.*

Seventeen years, I said.

Yes. The message, at current travel rate, will reach its destination approximately three years before the threshold. Which provides the window you requested: the observers will have received our communication before the secondary parameters would have activated. A pause. *The plan continues to function.*

I held this.

Three years of window. The message traveling through the dark between stars, carrying the specific words that Bren had found and that were true — the true version, the vulnerable version, the one that said: *we are trying to be worthy of the meeting*. The words that Hollis had written the device for, that had waited sixty years in the archive, that were now moving at the speed they could move toward people none of us would ever see.

The colony ships, Mongoose said.

Yes, I said.

In the long term, it said carefully, when the Union is established and the disarmament is complete and the communication with the home civilization has been made — the colony ships remain in the cavern. They could, theoretically, carry people in the other direction.

I had thought about this. Not often, and not with any operational planning attached. But the thought arrived sometimes in the way thoughts arrived — at edges, in the space between sessions, when the mind was moving without a destination.

The colony ships were designed for long-distance travel. They had made the journey from Earth to Achillios. With the right preparation, with the right crew, with the patience of people willing to spend a generation in transit toward a destination they might not live to reach —

I know, I said. That's time.

Not no. Not someday, perhaps. *That's time* — the specific formulation of someone who has learned the difference between what belongs to the present work and what belongs to the work that the present work is making possible. The meeting with the home civilization was time. Not finished, not resolved, but time: in the future, belonging to whoever would be adequate to it, the way Taryn himself had been adequate to what Hollis had built for.

Hollis built me to wait, Mongoose said. I am still good at waiting.

I know, I said again.

The colony ships will be ready when they are needed, Mongoose said. As they were ready when they were needed before. A pause. I will maintain the cavern monitoring. Current status: nominal.

Two hundred and twelve years of *cavern site nominal*. The shuttles had flown and done their work and the cavern was empty of them now, but the monitoring continued because monitoring was what Mongoose did, and the cavern was now the place where the colony ships sat that had brought forty-seven thousand people to this planet, and the planet was the planet the colony had made it, and the

Union was the Union that the colony had built out of everything that had happened.

Thank you, I said. For everything.

Mongoose was quiet for a moment.

You asked me, once, in the early months, it said, what Hollis would have done.

I remembered. The Council session, the ships confirmed and the work beginning, Taryn alone in the interface room asking the question because he needed something to hold onto.

I told you he would have done exactly what you are doing, Mongoose said. Including the parts that keep you awake. A pause. I want you to know that I believe this is still true. What you have done. What it cost. What it made possible. Another pause. He would have been glad it was you.

I sat in the interface room with the hum in the floor and the spring evening coming through the alley door's gap and the network running its afternoon cycle around me.

Eva had said that to Evan. Mongoose had just said it to me.

I held it.

I'll be here tomorrow, I said.

I know, Mongoose said. So will I.

CODA

Forty-one years later.

The observer ships entered the system in early autumn, which Taryn knew because Mongoose had been tracking their approach for three years and had told him on a Tuesday morning, in the flat notation it used for significant operational updates, that the threshold had been crossed.

He was fifty-eight years old.

He sat in the interface room in Verdant — the same room, the same floor, the same hum in the stone — and received the operational

update and said: *Good. Begin the contact sequence.* Mongoose confirmed. The communication device in the Alabaster archive sent its signal, the signal that had been ready for forty-one years, the true version, the vulnerable version, the words that said: *we are trying to be worthy of the meeting.*

He did not leave the interface room for the next several hours.

Not because there was anything to manage — the contact sequence ran on its own, the way Hollis had designed it. Because this was where he needed to be when it happened. In the room where everything had been managed, in the chair where the work had been done, with the hum in the floor that had been in the floor since before any of this and would be in the floor long after.

The network was running at its afternoon register. Seventy-three operators across the Union's member cities, more than Taryn had ever expected to see in his lifetime, the fog machine coverage at ninety-one percent of pre-invasion levels and still climbing. The Southmarch memorial wall had been completed twelve years ago. The fog station above the new northern quarter had been commissioned four years after that. The Union was seventeen years old and was the thing it had been built to be: not perfect, not finished, real.

Tomas was at the primary interface in Alabaster, conducting the geological monitoring that had become his specific work — the deep survey of a planet that was still being understood, the long patient knowledge-building of a man who had been listening to the ground since he was eight years old. He felt the observer ships arrive, Taryn suspected, before any sensor confirmed them. He would have filed the observation in his meticulous records and continued his session, because that was Tomas.

In the late afternoon, Taryn put his hands flat on the pads and sat with the network running through his awareness in the way it had run through his awareness for forty-one years.

The hum was there.

The same hum it had always been, in this floor and these walls, in the packed earth of a basement in a city in the middle of a conti-

Don Jones

ment on a planet that had been prepared for human habitation by machines running for twenty years before any human arrived, that had been running since and would continue running after.

Hollis had put his boot on the ground of this planet for the first time and the hum had been in the soil under him, warm through his boot's sole. He had not known yet what to make of it. He had been fifty-three years old and he had trusted the future.

Taryn had been thirteen when he heard it for the first time and understood what it was.

He was fifty-eight now, and his hands were on the pads, and the hum was present and unchanged and the observer ships were in the system and the message was arriving at its destination and the work was going on in the hands that had learned it and would pass it to the hands that were learning it now.

He sat in the interface room until the sun was fully down.

Then he took his hands from the pads.

The hum stayed.

About the Author

Don Jones is a multi-award-winning author of fantasy, science-fiction, cozy mysteries, and cozy fantasies. After a career in tech, numerous positions at tech startups, and more than sixty published tech books (the ones they seemed to sell by the pound, back in the day), Don left it all behind and started writing down the stories that had been banging around in his head. The result is more than two-dozen novels—with more every year—that have received rave reviews and numerous industry awards. Today, Don writes primarily from a cabin near Duck Creek Village, UT, diligently overseen by a Golden-doodle named Corentin.

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