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a novel by Steve Jordan

# VERDANT SKIES

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**Thanks to pretty much everyone I know, and quite a few I don't, who contributed to making me a better person. To the ones who tried to make me a worse person: Bite me.**

# Introduction

**NA Newsfeed—Breaking News—05Aug2229.16:23GMT**

**The U.S. Geologic Survey outpost in Bozeman, Mt. report this morning that four vents identified to be directly connected to the Yellowstone Caldera erupted within eighteen minutes of each other, beginning at 15:38GMT.** The skies immediately over the region have begun to fill with volcanic ash and various sulfuric compounds, forcing authorities to immediately widen the established safety cordon around Yellowstone National Park and the surrounding environs.

Evacuations have been sounded throughout the Yellowstone region of Wyoming, and evacuation alerts have been widecast throughout Wyoming and the surrounding states. Scientists at the U.S.G.S. outpost have reported that the eruptions agree with their projections of the imminent eruption of the Yellowstone Caldera, an event that has been widely anticipated over roughly the past two hundred years, though scientists had no way of knowing the ultimate moment, nor the magnitude, of the eruption.

Live data from the Global Oceanographic and Atmospheric Administration is being sent to the U.S.G.S. in order to provide an accurate projection of the movement of the volcanic residue being ejected into the atmosphere by the caldera. Volcanic ash and soot is known to shut down most aircraft and some aerospacecraft engines, so a no-fly zone is being established in the surrounding area. As the area impacted by the ash cloud widens, air traffic in the North American region will be heavily impacted. Volcanic ash is also known to be hazardous to respiratory systems; as a result, residents in the states surrounding Wyoming are being advised to stay within their homes or indoors in safe locations, until further notice. The danger will not be lessened until the cloud has largely dissipated, and scientists have no way of estimating at this point whether that will happen in days, weeks, or months.

Yellowstone National Park has not allowed visitors since 2163, when the heat and fumes from the park's famous vents and geysers became either too hot for human or animal toleration, or began to spew sulfurs and other volatile chemicals that suffocated the animals in the vicinity. In 2140, a permanent outpost was set up in Bozeman, tasked specifically to monitor the Yellowstone Caldera in an attempt to identify the approximate time of eruption and to monitor the air quality and current weather patterns in the area to provide early warning in the event of an imminent eruption. Critics are already attacking the U.S.G.S. over the apparent lack of warning provided by the outpost, and demanding an immediate investigation of the station's operational mission.

Scientists worldwide are responding to the event. Many of them are referring to the historic report delivered by Mohamar Reed to the U.N. in 2180, saying that this event would be the environmental "straw that breaks the camel's back."

Current evacuation and alert notices

Detail on Yellowstone Caldera

Text of Report #UN44089/MR02052180, delivered by Dr. Mohamar Reed on 2 May 2180: On the threat represented by the Yellowstone Caldera to destabilize the environmental state of the globe

# 1: Disaster

## 05Aug2229

The leisurely arc being cut by Aerospace Force One through the Colorado sky belied the incredible power being applied to its twin engines—more than usual, in order to cut through the grit that was already beginning to fill the air, and outrun it into orbit. Despite plenty of warning and distance, the sky to the north and west was already displaying a deep red hue, and lighter ash being ejected by the Yellowstone Caldera had already managed to reach as far as the Denver metropolitan area and darken the local skies. The powerful Aerospace Force jet was still in its southward turn and the reddish sky was slowly vanishing astern, but the outboard cameras kept the image centered, and broadcast it on every viewscreen that was not otherwise occupied displaying data relevant to the running of the country.

Only one such screen in the President's flying office was broadcasting the rearward view. As far as Gaston Lambert was concerned, that was more than enough. It was like watching a plague advance upon his nation, and in fact, would be no less devastating. He tried not to look at that screen, out of concern that its mere image would drain the resolve out of him, that he would be unable to make decisions, unable to run the country. And as it was, he didn't know how he would be able to guide it through this disaster, no matter how focused he might be.

Notice had been so short that they'd had little time to prepare or collect much before they had to go. Only the staff that were in the High House, or could reach Aerospace Force One at the Rocky Mountain Arsenal in an hour's time, had been able to come. Those staff members were now liberally spread out among the sub-sections of the jet's blended wing cabin, either trying to get work done, or waiting out the ride and nervously discussing the situation below amongst themselves.

They hadn't even had the time to wait for Vice President Carruthers to return from Lisboa, before it was decided that the worsening atmospheric conditions demanded they take off. That was particularly galling, because Lambert knew he would never hear the end of leaving Lena Carruthers in direct charge of the country, while he stole away to the relative safety of Verdant. And she would never forgive him for leaving her behind... she would be a bitch-on-wheels to work with, for the duration of their term.

However long that would last.

Lambert glanced over at the only other person in the room, seated at the chair closest to his desk. Enu Thompson, his Chief of Staff, also seemed to be pointedly avoiding looking at the one viewscreen that displayed the ash front behind them, and he glared with tightly knitted brows at the other screens that showed the evacuation efforts in Wyoming, Montana, Idaho and Utah, the emergency meetings being carried out throughout the country, or displays of figures and graphs that measured the health and

well-being of the country... all of which were in horrid scarlet death-spirals now.

As if Thompson could feel Lambert's gaze on him, he shifted his head enough so that he could meet the President's eyes. Thompson's dark African features and naturally large, round eyes could look particularly fierce when he was unhappy, and he looked none too comforting now. They had been together long enough that there was no reason to voice what they both knew they were thinking: *We could not have known; this is not our fault; yet, we will be blamed for it, and the subsequent ruin of the country, if we can't find a miracle somewhere that will pull us out of it; in short, our political lives are pretty much over.*

Seemingly confirming their shared thought, Thompson's face softened slightly, and he dropped the hand that had been pressed against his cheek as he slumped in the chair. He straightened up perceptively, and nodded at the President. "We'll figure something out." It was an empty gesture, an empty statement, and Lambert chose not to reply.

There was a discreet knock at the door, and Thompson called out, "Yes?"

The door slid open, and one of the President's aides popped his head inside. Without pausing to gauge the mood of the room, he said: "Sir, we've gotten word that the Vice President has touched down in Frederick. She'll be on the next bullet west to Denver within the hour."

"Thank you," Lambert replied. When he added nothing else, the aide took the hint, and disappeared, closing the door behind him. Lambert shook his head sadly. "*Merde*. 'Cocktail Barbie' in the High House. I'm not sure which to be more afraid of... the people's reaction, or hers."

Thompson shrugged. "It's not as if we won't be in communication with Denver. We'll still be giving the orders, and Lena can just sit there and look good. Like usual."

Lambert glared at Thompson. "You know there's more to running the High House than that. She'll be a nervous wreck before sunset." He cracked an ironic grin. "Which will be coming a lot sooner than usual today."

He risked a glance at the rearward camera viewscreen. Although the reddish horizon still dominated the image, it was now at risk of being overshadowed by the noticeably-increasing curvature of the Earth below, and the inky blackness above it. Though the appearance of Earth from high orbit had always awed and impressed him, the image was tainted by the spreading red stain below, and today Lambert saw nothing beautiful about it.

So he glanced at another screen, which had shifted to a forward view. The cameras were able to provide filtering that the unaided eye at a viewport would not have been able to manage as well, and Lambert could clearly see the tiny pinpoints of starlight speckling the field of black. A few specks were brighter than the rest, and Lambert knew they were heading towards one of those brighter specks, though at this distance he could not tell which.

Under normal circumstances, there would always be ships in the sky, going to and from the orbital satellites. Less than a century ago, engine technology had finally put the practicality of powered flight into orbit into the hands of small shipping companies, heavy freight haulers and even passenger services. Much of the transit and transportation that used to be carried out in the atmosphere was now sent all the way to orbit, where the lack of atmospheric drag allowed a ship to travel around the world on significantly less power, not to mention accessing the various orbital facilities that had been built. At the moment, however, there were far fewer ships in the sky, as the atmospheric conditions had caught most

craft unprepared, and grounded most fleets.

“Are there any reports from Verdant?” Lambert asked. “How are they reacting to this?”

“I haven’t heard anything yet,” Thompson replied. “I’m sure they’re monitoring the situation, but the gravity of this might not have reached anyone outside of the CnC. I’ll get an update.”

Lambert nodded as Thompson rose from his seat and headed for the door. “Let me know if things are getting bad up there. Nothing like escaping a disaster and landing in the middle of a riot.”

Thompson smiled grimly at him before he exited the room. “That’s the spirit.”

~

Verdant’s Command and Control center usually carried the atmosphere of an open office full of relaxed cubicle-workers, talking openly and joking, passing information back and forth, and tending to their work with the quiet efficiency of people who knew what they were doing. The atmosphere in the CnC today, however, was noticeably different.

Various scenes of the spreading plumes of ash, evacuation efforts, North American weather data, and concerned news reports displayed from around the world on a myriad of display screens on the desks. The reports were in many languages, many of them being translated by the GLIS, the station’s Governing Logistics Intelligence System, into Universal English for the benefit of the staff. Personnel quick-stepped back and forth, from desk to desk, sharing data or asking questions of each other, and trying to collate everything they were seeing. The GLIS spoke as well, multiple dialogues from multiple speakers, supplying data or answering questions as requested. An individual would have had to raise their voice to be noticed above the commotion. Despite the artificial daylighting in the room, the CnC felt dark and ominous today, as if the ash clouds over Wyoming were somehow blocking their light, too.

The room consisted of two outer rows of control and monitoring desks set in a rectangular pattern, with the desks on each side of the rectangle oriented to the open area in the center of the room. A command station as large as six of the outer desks dominated the central space, itself dominated by an elaborate wrap-around control panel, a number of large viewscreens on its surface and suspended from the high ceiling above, and a three-dimensional display column in its center. Of the personnel coming and going throughout the CnC, they mostly gave a wide berth to the central station, and to the man and woman standing side-by-side there.

They wore identical green blazers, complete with the Verdant logo over the left breast pocket, matching green trousers, and cream-colored shirts, the mark of senior governing personnel. Beyond that, there was very little about them that seemed similar: He was European in features, an inch over six feet, just a few years into the second half-century of his life, and with the slight paunch to prove it; and she was a small, fighting-trim, dusky Latina who didn’t look like she’d reached thirty yet. The woman watched the viewscreens in obvious dismay, absently using her hand to cover her open mouth. “This is painful to watch,” she muttered, too softly for her words to get any further than the man standing next to her. The man glanced at her... perhaps just to make sure she was bearing up under the stress of the situation... and nodded lightly, but otherwise said nothing.

A voice called out from an overhead speaker... the voice of the GLIS. “Ceo Lenz?”

The man at the central station allowed his eyes to drift upward at the ceiling, as if looking at the speaker was the same as looking at the Governing Logistics Intelligence System. The GLIS speakers and

monitoring pods all looked like fist-sized soccer balls, their white faceted surfaces allowing for uni-directional sound and sensory input and output. The sound was directed at him well enough that it was easy to pick out which pod had spoken to him.

Once the man's eyes had fixed on the appropriate pod, it spoke again. "Raw stock deliveries to Verdant are already being postponed or cancelled throughout the Americas. Manufacturing schedules will be immediately impacted in six plants."

"Understood," the man nodded. "Are you still monitoring Aerospace Force One?"

"Yes. They report no adverse difficulty getting through the atmosphere. ETA is still 1915."

"Prepare a list of plant personnel, starting from non-essential and working up, for an interim leave schedule."

"Very good," the GLIS responded.

Next to him, the woman nodded, though she did not take her eyes off the screens. "Might as well. It's not as if they'd get much work done during this."

"Agreed." The man glanced at the woman. "Do you have family near there?"

"Are you kidding?" the woman replied, and flashed him an ironic half-grin. "I don't think there's a ten-square-kilometer plot on Earth where you won't find a member of the extended Luis clan." He chuckled, not too heartily. "Hopefully," she continued, "none that couldn't get out of there in time."

The man and woman exchanged glances, then furtively stole a glance about them at those in the rest of CnC. They were the top of the command structure, and it would not pay to set a bad example to the rest of the staff, or show an inappropriate level of concern during a crisis. Julian Lenz, "Jules" to those closest to him, Chief Executive Officer of Verdant, had seen his share of executives who'd lost their positions due to a lapse in professionalism at an inopportune time—like when a media camera was on them, or a disgruntled employee was in earshot—and had no interest in playing the defensive role with his career. He was just too old for that nonsense.

His second in command, Executive Officer Reya Luis, was probably not quite as concerned for her career as he was... but she was just as professional, and understood about professional propriety. Her comment about her extended family was already a well-known and well-worn running gag in CnC, and therefore hardly something to take issue with. Even so, she'd kept it pitched low enough to avoid anyone else overhearing, with the possible exception of the GLIS.

They both looked up when they noticed someone new entering the CnC and approaching the central station. His green blazer was identical with those worn by Julian and Reya, marking him as another senior command member.

When he reached the station, Julian asked, "How's it going, Aaron?"

The newcomer shook his head. "I've been arguing with freighter company heads for the past hour, trying to get their scheduled shipments up here. I needed my office, for a little quiet. Not that it helped, I think."

Julian pursed his lips but did not reply. Aaron Hardy, his Chief of Operations, was unmatched for his ability to juggle resources and assignments on-the-fly. He was not so expert at dealing with people,



though... and Julian doubted he'd put up much of a fight with any of the freighter lines who had reservations about flying through ash-filled skies. Not that he blamed them for arguing the point, or for that matter, Aaron for conceding it—it was downright hazardous down there. But every freight delivery they lost was going to put them tighter in a bind, and that was not something to look forward to.

Reya Luis looked up at Aaron—both Aaron and Julian were a head taller than she was—and said, “I doubt there's much you could say to get them to fly through that.”

Aaron nodded in agreement. “A U.N. Coo is pretty much outranked by the GAA. They're already recommending flight cancellations across the board.” He looked at Julian. “I may be able to convince more of them to switch to ballistic deliveries, at least for awhile, but I don't know how well that will sit with them. How are things looking from here, Jules?”

“Lousy,” Julian replied honestly. “The caldera doesn't show any signs of letting up.”

Aaron grimaced. “Resources are going to get tight. I'd recommend going to level four conservation restrictions before the day is out.”

“Before the *hour* is out,” Luis suggested.

Julian looked at them both. “Level four it is,” he agreed. “Reset the GLIS. In the meantime,” he added to Aaron, “see if there are any southern hemisphere vendors looking for some new opportunities. Before all the windows are closed on us.”

“Already put some feelers out,” Aaron smiled. He knew his job, no doubt about it. “Wishing on a star.”

“Well, we've got a few,” Julian said lightly. He gave the room a quick once-over, and seemed satisfied that there was not much else he could do at the moment. Then he turned and strode to a door with a small plaque that said, simply, “CEO.” The door slid open for him, and closed behind him.

Julian's office was noticeably quieter, the moment the door closed, making him realize perhaps for the first time how uncharacteristically hectic it had been in CnC. He took the moment to draw in a deep, cleansing breath, and let it out, willing himself to relax... he was afraid he might not have many opportunities to do that in the immediate future. Then he crossed the office, circling around the executive-sized desk at the far end of the room.

As he sat down at the desk, various controls and screens embedded in the desk's surface came to life, giving him overall information on the operations of Verdant, and the option of digging deeper into any of them. His hand drifted to one area of the desk, the controls for the viewscreen that filled the long wall directly in front of him. Ironically, that wall faced the outer skin of Verdant... but between the outer shell, the internal plumbing and wiring, and shielding, an actual window to the outside would have to be three meters thick to be usable... a viewscreen made much more sense, besides being inherently safer. He tapped out a sequence, and at once, the entire wall came alive with a crystal-clear view of Earth.

So clear and still was the image, that Julian could easily believe he was sitting before a wide window, staring directly down at Earth from an impossibly tall building... instead of from Verdant's relative position, in geosynchronous orbit 36,000 km above Earth's surface. From that distance, the entire sphere of the Earth was visible on the screen, its mostly blue-white atmosphere ably hiding the environmental damage that millennia of human habitation had wrought... and almost centered on the screen, the reddish cloud that was spreading over the North American landmass like a massive, lethal wound. The final blow that would undo the last century's dedicated efforts of reconstruction and reclamation. The straw that

would break the camel's back.

And Verdant was helpless to watch... as were the other satellites, Tranquil, Fertile, and Qing. No, even worse than that: Verdant and the other satellites were not self-sufficient, and depended upon Earth for supplies and raw materials, by design; Earth was the anchor to which they were all tethered... and if Earth went down, the satellites would be dragged down with it.

They were all in trouble.

At that moment, there was *aping* that seemed to emanate from the very air around him, the subtle but penetrating alert tone of the GLIS. Following the ping, one of the desktop screens began displaying text, a message that would be relayed throughout Verdant, which read:

All personnel and residents: By order of the CEO, due to the crisis on Earth caused by the Yellowstone Caldera, Verdant has been placed on Level 4 conservation restrictions until further notice.

Julian stared at the message for a moment. He had little confidence that the conservation restrictions would get any better, anytime soon. He silently prayed for them all.

## 2: President's Arrival

Aerospace Force One slid carefully into the slip that was always reserved for it in Verdant's private craft bay. Many of the monitoring systems that usually provided telemetry from incoming ships were dark, owing to the cloaks and classified feeds aboard the Presidential jet. Nonetheless, the dock monitors watched the ship as it eased into its slip, doing their job to at least visually confirm that there was nothing out-of-the-ordinary about their approach.

The jet was similar to many medium-sized military jets on the outside, most notably its lack of viewports, its beam-ablative shielding, and its defensive laser turrets and missile ports. Its interior was, of course, classified, but no one would have been surprised at the level of creature comforts within, many of which had supposedly contributed to an executive or staff member's achieving membership in the "100-mile high club." (Interestingly, having sex on Verdant or the other satellites was never counted as membership in that club, as being on a habitation satellite was considered too much like being on Earth. But any spacecraft that had achieved high orbit or further qualified, and it was the rare ship that was not "christened" by its second or perhaps third time out.)

The jet finally touched against its moorings, and was captured by the docking mechanisms. The airlock extended outward and pushed up against the hull, creating an airtight fit between the main hatch and the reception area beyond. Like all private bays, the reception areas were not open to the public, so there were no photographers or reporters waiting to catch a glimpse of the President the moment the jet's hatch opened. It was large enough to accommodate the entire staff and crew, however, so it was often used as a waiting area while transportation was arranged to the Presidential Compound.

President Lambert headed for the exit hatch, never the first one out of the jet for security reasons, followed closely by Thompson. He was speaking to one of the staffers: "Send Ceo Lenz our regards, and a request for the President to meet him tomorrow morning." The staffer moved off, and Lambert and Thompson stopped walking when they noted AF1's pilot, Col. Emily Stearns, approaching them on an

obvious intercept vector.

“Mister President,” Col. Stearns began without preamble when she was in proximity, “we have confirmations from the Global Aviation Administration that ground conditions are now considered severe over seventy-five percent of the U.S. mainland. Air traffic is considered difficult to impossible at this stage. We may be here for awhile.”

“Thank you, Colonel,” Lambert said. “Keep ‘er tuned up for a launch within two hours’ notice. Just in case things change for the better.”

“Certainly, Mr. President,” Stearns nodded smartly. “Mister Thompson,” she inclined her head at the Chief of Staff, before she turned and strode back towards the cockpit.

When she was out of sight, Lambert said softly, “Probably just turn out to be busy work on her part.”

Thompson said, “I could give her something else to do.”

“Didn’t you bring enough of your people with you?” Lambert fixed him with a significant but amused look. “Leave her alone.”

Thompson shrugged with his eyebrows, and followed Lambert out and into the reception area. Some of the rest of the staff were already there, as well as the ever-present security detail scattered throughout the area. Thompson surveyed the staff, especially the female members standing about the area. Many of them were wearing skirts, not a big deal on Earth, but generally considered to be *afaux pas* for a professional working on a satellite (too many catwalks, open balconies and unexpected low-gravity areas for propriety or modesty’s sake). Of course, they had all left in a hurry, and no one had had time to prepare a wardrobe. A few of the smarter staffers usually kept appropriate changes of clothing in their offices, and had had the presence of mind to bring them. Most of them had changed on the jet, and were now appropriately dressed for satellite duty. Thompson, who liked to take full advantage of the sexual opportunities that gravitated to men of his powerful position, mentally catalogued the rest of the staffers, as their now-unintentionally-risqué appearance would give him something to look forward to—and take full advantage of—later that day.

To one of those women in particular, he caught with an eye and motioned her over. The staffer walked over smartly, her skirt shifting back and forth with the cadence of her long legs. She moved close enough to Thompson for him to catch a whiff of her cologne, and said, “Yes, sir?”

“Gail, make yourself available for debriefing tonight,” Thompson said casually. “And put in a call for the President. See if Miss Vaughn is aboard.” Gail nodded and smiled knowingly, turned and started to walk away, but a hand on her shoulder stopped her. Thompson, looking past her at the other staffers, said, “Tell Meryl to join us at debriefing, too.” Gail’s expression barely shifted, but she proceeded a bit more briskly when he finally released her shoulder.

While he had spoken to Gail, the first of the Presidential transports had arrived outside of the reception area. It was a tram car much like others in Verdant, though built a bit more heavily in deference to protecting the President. The secret service agents quickly checked the vehicle, and then signaled for the President and the Chief of Staff to enter. Lambert and Thompson climbed into the vehicle, and before the door closed, another of the male staffers stepped up to the vehicle. “I have the report on the present state of Verdant.” Thompson motioned him inside with them. Once he was inside, the door was closed, and the tram moved off for the Presidential Compound.

As they moved through subsurface railways, heading for the open air beyond the bays, the staffer took an electronic tablet from his breast pocket, a government-issue model with a brushed nickel case. He brought his tablet up and waited for a sign that the President and Thompson were ready for his report, then began: “Just as we were arriving, Verdant CnC declared Level four conservation restrictions satellite-wide. That’s basically minor rationing of water and staples, and temporary shutdown or cutbacks in select energy use. The number of already-cancelled freight deliveries means they are going to have to shut down at least three full manufacturing plants, and sections of a few others, possibly for the duration of the crisis. U.N. reports of their stores suggest they can go without supplies from Earth for at least a month, then they’ll have to go to Level three restrictions. All senior personnel are aboard, and they are not listing a shortage of required personnel in any area.”

“How are the people taking the news?” Lambert asked.

“A few grumbles,” the staffer replied. “No one likes even Level four restrictions. You’ll hear some howling when they go to three, but mostly from the upper-level executives.”

After a moment, Lambert nodded, and the staffer lowered his tablet. Lambert glanced at Thompson. “Along with everything else, as long as the satellites can’t get raw stocks, we’ll be losing the goods they ship down. That’s an extra hit on our economy.”

“We might want to keep that in mind, if we need leverage for anything,” Thompson agreed. “We might need to stay here for awhile. And given the conditions of things on the ground, we can expect to be involved in some serious negotiations in the near future.” He glanced over to the staffer, who was poised ready to bring his tablet back up if needed. Thompson shook his head, and the staffer lowered the tablet.

Meanwhile, Lambert was nodding. “The immigration restrictions,” he intoned. “This is going to qualify as a crisis mode. It will be impossible for the U.N. to deny us the right to negotiate higher quotas for the satellites. We’ll need them as sanctuaries for as much of the ground population as we can get up here.”

“Sir,” the staffer interjected, his hand flashing over the touchscreen of his tablet, “the U.N. has remained firm on the sovereign status of the satellites and their quotas during the past four challenges, and all of the satellites have documentation that proves they are either at, or slightly above, sustainable capacity right now.”

“Optimal capacity, obviously,” Lambert said to the staffer. “But optimal is a best-case scenario, Harley. They can accommodate more people if they have to.”

At that moment, the tram exited the sublevel railways, and they could see the open area of the satellite through the tram’s thick transparent roof. The three of them glanced quickly upward to take it in, and only the staffer, Harley, brought his glance back down to the President after only a few seconds.

Verdant was a massive cylindrical superstructure, enclosing a collection of cylinders within cylinders, twenty in all, each one a level, known as a “floor,” housing apartments, offices, greenspaces, gardens and public areas. Most floors rotated at a high-enough rate to generate the equivalent of a standard Earth gravity: Notable exceptions were Floor 3, dedicated to hospital functions, which rotated at a slower pace to create an approximation of lunar gravity to aid physical recuperation; and portions of the science and research floors, which either rotated at various rates, or not at all, to provide different level of gravity as required by the researchers. Only the outer floor, Floor 20, and the central column, Floor Zero, extended the length of the satellite—from the “north” to the “south” poles—the rest of the floors extending from each pole, or from only one of the poles, and ending in terraces that overlooked or underhung other floors in a staggered but attractive pattern. This allowed the outer floor, and certain

areas of the inner floors, to enjoy an open “sky” that extended, in some places, all the way to that floor’s opposite wall, and included the added visual sight of balconies rotating at various rates, each one slightly faster than the one below. Many of the floors had high-enough “skies” to allow the formation of hills and pastures, mainly on the south end of the satellite, encompassing wooded areas, parks, even lakes and streams. Others provided park areas in the living spaces, where the lowest ceiling of any one floor was still a respectable four meters in height.

All of the satellites had essentially been built this way, even Qing, with minor variations between them. The satellites had been commissioned by the U.N. when concerns about the consequences of global warming, and mankind’s inability to reverse the process, originally forced the world to consider the radical idea of moving humanity off of the planet almost altogether. It was proposed that small numbers of humans, taking advantage of automation, could continue to live on the ground and provide needed raw materials to the satellites, allowing the bulk of the population to live in relative safety in multiple orbital oases... basically, removing humans from the environment they were so good at ruining, and which threatened someday to retaliate and overwhelm them.

However, budgetary limitations scaled back the project severely, leaving only three satellites built by the charter, the third co-funded by the remaining oil barons of the Mid-East, and a fourth by China exclusively. Most of the human population still lived on the ground, and the overriding proportion of them wished fervently that they could live on the satellites instead.

“Look at that,” Lambert said, prompting Harley to look upward again. “Look at all the open, relatively unused space in here. They made every effort to create these fancy greenspaces and luxurious high ceilings, but there’s room for plenty more living space in those unused areas! They could *double* the population here, with just some creative redesigning.”

“The ecosystem is supposed to be balanced for the existing population,” Harley pointed out, doing his best to sound factual and not contrary. “According to their engineers, a satellite this size could not carry the resources needed for double the population.”

“In *an optimal* scenario,” Lambert repeated. “But these people live in relative luxury now! They can afford to cut back on resources... food... power use... and spread the wealth a bit.”

“That’ll be a hard-sell to the U.N.,” Harley stated.

“The U.N. may feel differently, when the populations of the world are banging on their doors,” Thompson commented.

Lambert shared a glance with him, and nodded in agreement. “Harley, when we get in, have the staff work up a plausible emergency operations scenario for the satellites, based on our original specs. I want it ready in the morning to present to the U.N.”

Harley nodded, put his tablet in his suit pocket, and said no more.

~

The Presidential Compound was not much of a compound, in a traditional Earth-bound sense of mansions or collections of houses surrounded by acres of land. In fact, other than the one building, there was not much land that was actually devoted to it as grounds. But it was situated in one of the protected parks on the southern side of Verdant, where individual access was generally limited in order to avoid damage to the flora and fauna there. Since access was controlled anyway, it made sense to put a

high-security building there.

The four-story structure, equipped with apartments, work areas, independent security and communications stations, and the Presidential residence, had been leased to the U.S. Government as their secure facility on Verdant. . . what some people liked to call the “*High-High House*.” The building was nondescript from the outside, owing to the simple vertically-oriented carbon façade, and to the high-security windows that blended in with the design of the façade so well that outsiders could not accurately tell where walls ended and windows began. The President used the compound as a retreat, occasionally for actual relaxation, but usually to conduct business away from the rigors of the High House in Denver. It was also the unofficial United States Embassy on Verdant, and as such, had a small contingent of American citizens and a few Verdant citizens always stationed there.

Those workers were all outside the entrance to the compound, like a line of expectant servants greeting their Lord and Master, when the tram with the President pulled up to the gate. Once they’d received the official “all clear” signal from security, Lambert got out, and ran down the line greeting and shaking hands with the embassy staff, all of whom he could address by first name. Thompson followed behind him, speaking directly to a few of the embassy staffers, shaking hands with most of them. Harley followed along, addressing only a few people that he knew directly, and otherwise remaining obtrusive. Once that was accomplished, they all headed inside the building, and the President, Thompson and Harley took the right arm of a double flight of stairs that led to the second floor, and the Presidential offices.

The interior of the building belied its simple exterior, being filled with antique furniture, rich dark woods (half of which had probably been on the endangered lists when they were harvested), expensive accents and state-of-the-art IT. A lot of trouble had been taken to rebuild some elements, like antique lamps, to function with modern lighting units and ambient sensors, but continue to look like their counterparts of past centuries. The overall effect was that of a late-twentieth-century corporate office, considered by historians to be the high-point of modern business opulence, if not efficiency.

The staffers other than Harley had not yet arrived (the first of them were only now pulling up in the second of nine trams following the President’s transport), but the workstations in the main space had been maintained by cleaning staff and looked as if they had been used just yesterday. Harley planted himself at one workstation and activated the intelligence system with a quick thumb-swipe, as Lambert and Thompson continued on to the President’s Office. Despite its regular use as an auxiliary President’s office, it was not oval in layout. . . only the office in the High House was designed to resemble the famous Oval Office in the original White House. But it also looked as if it had been used as recently as that morning.

The President took a leisurely turn through the office, then settled behind the desk, flicked his thumb across the login sensor, and watched the displays mounted beneath the glass-topped surface snap on in his customized orientation. The screens displayed data on the state of the United States at that moment, as well as data on the Verdant satellite that corroborated with Harley’s report, and added information gleaned from other news reports and data collectors by the embassy staff.

Lambert concentrated on the United States reports, which were not good: Besides the nationwide flight cancellations, the ash was beginning to have an effect on the ground, causing abrasive and choking dust-storms in the states surrounding Wyoming. The word “ash,” in this case, was an unfortunate misnomer, suggesting light flakes of carbon, something that drifts out of a campfire, to most of the public. . . when in fact, it mostly consisted of fine grains of rock, in sizes that ranged from pinprick to golf-ball, spewing out of the caldera, buoyed aloft by the hot gasses, and eventually raining down on everything below it. Local fields and forests were getting stripped down to nothing. . . it was clear that any crops that were in the path of the advancing ash clouds would be wiped out. The ash was fine enough to

be inhaled, and could cause immediate suffocation at worst, or at best, enough of a build-up in the lungs to cause cancer and other ailments in later months or years. The ash was also capable of wearing down surfaces like sandpaper: Clear surfaces like glass would become permanently clouded over; protective finishes would be scraped away, leaving buildings, vehicles, roads, machinery, anything, more exposed to the elements afterward; and wear and replacement schedules would be accelerated for anything exposed to the ash.

Possibly worst of all, the ash cloud would immediately impact the power industry. The cloud itself would most directly block the millions of acres of solar cell installations that depended on the Sun's light and heat to generate electricity. Once the ash descended from the sky and impacted the cells directly, it would wear away at their surfaces, tearing away or obscuring the multiple chemical layers that did the work of converting solar energy into electricity, and efficiencies would drop severely... essentially all of those solar cells would have to be replaced outright. Windmills would similarly suffer major damage from ash-related wear, worse than any dust-storm, and would also certainly need replacement. Only their tidal systems would be left, but they mostly provided power only to coastal regions... though possibly they would be barely adequate for the major coastal cities, they would certainly not be enough for the entire country.

The United States had come so far from its twentieth century pollution levels, its overly-generous contribution to global warming. It had waited so long, even after pretending to heed the warnings of scientists, that it had finally taken the severe droughts, the three-meter sea level rise (and rising), and the loss of so much expensive American coastline property, to spur the country into decisive action... and after years of pain, it had actually been working. And now, after over a century of painful but successful national conversion from oil- and coal-based power sources to geothermal, hydro-tidal, solar and wind power sources, their sustainable infrastructure was about to come crashing down upon them.

And the most ironic of all, their geothermal industry would prove to be equally unable to provide power for the rest of the country, even in the face of a volcanic upheaval that was proving to be providing enough power for the entire country to run on every three minutes or so. Their most powerful geothermic plant complex had happened to be the old one at Yellowstone... and the nation had taken a large hit when geologic states were becoming so unstable there that the local area, including the geothermic plant, had had to be shut down and evacuated. Though proposals to restart it and run it purely on automation had been forwarded multiple times, they had never been ratified and acted upon. That left the next-largest mainland plant, at Mount St. Helens, and many smaller plants around the country, but again, none of which provided more than a small fraction of America's power needs. (And there would surely be those who would claim that the evacuated plant had somehow caused the caldera to finally breach—a claim akin to suggesting a mosquito-bite could cause a human body to detonate.)

Power gone, the nation's breadbasket literally scoured, nothing running... it was a crisis of biblical proportions. And though it would be a slow process, Lambert guessed that within the month, the United States would be effectively, completely shut down.

Lambert reflected briefly on the thinking of the late-twentieth century regarding what was referred to as the Great Extinction Event of the late Cretaceous period... at the time, it was believed that a rogue asteroid impact had served to wipe out the dinosaurs. But by the mid-twenty-first century, scientists had come to a new conclusion: That runaway climate change had devastated the environment, ruining the food chain from plants-up and leaving the dinosaurs with nothing to live on, and that before the actual impact, they were already dying off and almost gone. If anything, the asteroid may have been the final nail on the coffin, but without the impact, there would have been the same result. And in this new scenario, the trigger had been volcanic activity: Specifically, the volcanic ranges west of India that had started the runaway global warming event. Man had been watching for its expected death-knell in the wrong

direction—the Extinction Event had not been triggered from without, but from within. And the likelihood of future such events were statistically more likely to happen than any potential asteroid collision.

Scientists and reporters were already picking up on the parallels, and the ironies, of the two eras: Many of them were stating that there was, at this point, nothing that could be done; that Man's time on the planet was as done as the dinosaur's. Geologic history was repeating itself, and for the human race, the fat lady had sung.

And it was happening on Lambert's watch. All the good he had accomplished, all the positive improvements he'd made to his country during his term, would be wiped out, both literally and historically, by this one event. He had been damned by unfortunate circumstance.

President Lambert looked up. He realized Thompson was standing there, silently watching him. He managed a weak smile and said, "I'm all right. Let's talk about our meeting with the Ceo."

~

The satellite-wide ambient lighting had begun to dim hours earlier, in sync with Greenwich Mean Time, the official time on-board all of the satellites. That meant that it was not that late to Lambert and Thompson, at about the time most people on-board Verdant were already in bed.

Nonetheless, Lambert felt exhausted, mostly from the mental stress, the deep-down feeling that everything he had accomplished in life had all gone down the drain in one day. So, when he and Thompson finally knocked off for the day, he felt he only had enough energy to take the elevator, the one meant to be used only for those visitors who were of limited ambulatory means, to get to the penthouse suite of the building, two floors up.

Lambert entered the suite, barely nodding to the agent posted in the landing's lobby, and started to strip off his jacket the moment he closed the door behind him. "Good evening, sir," PJ, the house butler, greeted him as he entered. "Nice to see you back."

"Hello, P.J.," Lambert replied. Electronic house butlers could, of course, be named anything. Many of them were simply addressed as "Butler" by their owners. But it had been decided at some point, decades ago, that the official butler of the Presidential Suite needed a proper name of some sort, to distinguish it from the rest. By unofficial decree, the name was often only referred to by its initials—some historians suspected it had had something to do with past use of the system for clandestine affairs, and that using initials, full names, or other derivations, was a private way to keep official and unofficial affairs separate... a suspicion that had, of course, never been proven—"PJ" was short for "President's Jeeves."

As Lambert trudged towards the bedrooms on the north end of the suite, PJ asked, "Can I get you anything, sir?"

"Send my usual evening drink to the bedroom," Lambert replied. "Any messages?"

"Just one," PJ replied, "as follows: 'Miss Vaughn is here.'"

PJ made that statement, just as Lambert was opening the bedroom double-doors. He paused as the doors swung open, and took in the view of the room from there, allowing his eyes to stop, not on the bed, but at the coffee table and divan beside the balcony. A woman reclined across the divan, facing the balcony and the view, and upon hearing the doors open, shifted leisurely to a seated position, the side slit on her silk skirt shifting as she turned to reveal almost everything south of her hips. She smiled at



Lambert, and held up a tumbler that was identical to one that waited on the coffee table.

“And so she is,” Lambert smiled tiredly. “You can cancel that drink order.” He walked inside, allowing the doors to close silently behind him. He crossed over to the divan, and sat down. “Hello, Shay.”

“Hello, Gaston,” she replied, using one slender hand to brush her shoulder-length auburn hair away from her face, revealing eyes that were just a shade lighter than her hair and clear as prisms. She used the other hand to reach down to the coffee table, and hand him the glass. “You’ve had quite a day.”

“I’d like to say, ‘you don’t know the half of it’,” Lambert nodded, and took a swig from the tumbler. “But I’m pretty sure that you, and everybody else, know*exactly* the day I’ve had.”

She regarded him levelly, her eyes dancing in the light. “Are you all right?”

Lambert regarded her, and finally gave a small wince and a shrug. “Tired, mostly.”

“Can I—”

“Can you do me a favor?” Lambert interrupted her, and drained the tumbler. “Can we just not talk about it for a few minutes?”

Shay Vaughn regarded him sympathetically, and smiled. “I understand.” She put her tumbler on the coffee table, next to his, and shifted around to drape an exquisitely-tanned arm over his shoulder. Lambert allowed himself to slump into the divan, and Shay rested her head lightly against his, gently caressing his temple with her hand as she held his hand with the other.

## 3: Plans

**06Aug2229**

“Daddy, help me! I can’t find my ledlight!”

“Oh, Erin,” Calvin sighed the universal sigh of barely-tolerant parental frustration, “every time we have to go through this...”

“It was*right here* !” his daughter retorted as she dug through her desk drawers haphazardly, shoving things around in one drawer with one hand while pulling items from another drawer out onto the floor with the other. Her eyes always seemed to be engaged with the hand that was doing the least at any one time. “I just had it last week!”

“Keep looking,” Maria called from the kitchen. “Let your father finish his work.”

“Or it won’t matter whether you find your ledlight,” Calvin added from his office. He tried to tune out his daughter’s continued pleas for her mother to help her look, while he bent over his workstation. He was finishing his last report for *On High*, the Verdant news agency that regularly commissioned him for science-related commentary and consultation, and officially the last thing he had to do before he and his

family could go on their camping trip. He was intent on finishing it quickly, because he suspected if he waited too long, he would be dragged into the mess going on down on Earth... and although he would not have said so aloud—because it would be bad for his reputation—he hoped to avoid it, at least for a few days.

The sudden cessation of commotion, and desperate voices, from Erin's room indicated that she had found her ledlight, as Cal knew she would... crisis-of-the-minute over. *Good: Just need a good wrap-up...*

"Honey, should we bring the large jar of sauce for the barbeque, or will the small one be enough?"

Cal managed to avoid jumping at his wife's sudden appearance at the office doorway, but he could not hide the fact that his train of thought was broken by the interruption. Doing his best to mask his irritation, he looked at his wife, and the two jars she held in her hands. "Bring the large one, dear," he said quickly.

"Oh." Maria bit her lower lip. "I broke your concentration... sorry, honey!" She elevated the large jar and smiled. "Large jar it is." Then she hurried back to the kitchen.

"Sauce..." Cal muttered, as he tried to get his concentration back. "Ingredients... secret ingredient..." After a moment, his fingers flew across the keyboard. His muse appropriately piqued, his words came faster and faster, until he was audibly humming in an increasing crescendo as he neared the end. Abruptly, he stopped typing, and humming, and he leaned forward to examine the words he'd just deposited on the workstation screen. Then he lifted a hand as he said, "Aaanndd..." he quickly brought the hand down and struck the key to send the report off. "Done!"

"Good for you, Cal," Maria was saying, but Calvin was already out of his chair and heading for the bedroom. He noted that his wife's voice did not sound as enthusiastic as he would have liked... he hoped he was over-reacting. But as he passed by his daughter's room, he caught Erin's eye, and she gave him a look that spoke volumes. *It was going to be another one of those camping trips.*

"Finish your packing," Calvin admonished his daughter as he passed by her room. "If we're fast, we can be out of here in—" He stopped speaking when he reached his bedroom. There, next to his half-finished backpack, was his wife's pack, which had not been started. "Oh, jeez," he whispered, then, in a louder voice, "Maria!"

"Well, I had to finish getting the food together, didn't I?" Maria was already at the door, stepping past her husband almost before he knew she was there, and opening the first dresser drawer on her side of the room. "Besides, it's not as if that park is going anywhere, is it?"

Calvin wisely avoided commenting, and set to work finishing his own packing.

He had his pack about finished, when Erin, with her frighteningly larger pack, shuffled by the bedroom. "Mom, did you pack the hotdogs?"

"Honey," Maria protested gamely, "you have to eat more than hotdogs on this trip!"

"We're going *camping*, Mom!—"

"They're made of tofu and mushrooms," Calvin muttered to himself, just as the com beeped on the nightstand. "Agh—" He stepped around the bed to reach for the com, thinking, *that Clegg, he knows I'm going on vacation, if he wants the report tweaked, he knows he can give it to Bailey and she'll*

*polish it up ... he bent over and hit the answer button. "Clegg, just give it to Bailey, she'll take care of it—"*

*"Dr. Rios? This is the Ceo's office."*

Calvin froze, then winced and pursed his lips. He looked down at the com's screen, where it displayed the unmistakable ident of the CnC. After a pause, he said, "Sorry, yes?"

*"The Ceo urgently requests your presence at a meeting with the President of the United States this morning."*

"This morning?" Calvin repeated.

*"At ten hundred," the voice said. Calvin didn't recognize the voice... but he knew no one would be crazy enough to spoof a call from the Ceo's office. Not even the idiots he worked with. "The Ceo and the President will be discussing the situation on Earth caused by Yellowstone. He needs you as scientific advisor to represent Verdant's position."*

Calvin did not want to speak. A small sound alerted him to his daughter, standing in the bedroom threshold. He could see his wife standing behind her, almost but not quite hidden around the corner.

Before he could reply, to the com or to his family, the com spoke again: *"Is there a problem, Dr. Rios?"*

Calvin winced again, and said through clenched teeth, "No. No problem." He allowed his face to relax, and allow the resignation to seep in. "I'll be there at ten hundred."

*"The Ceo requests you be there at least ten minutes sooner,"* the com stated.

"Of course," Calvin said.

*"Thank you, Doctor."* The com went silent.

Calvin keyed off the com, and straightened up. Slowly he turned, to face his wife and daughter. Erin's face looked upset; Maria's face was... something different... he sighed, hoping that it would effectively convey his displeasure of the situation. "Um... well, hopefully, it'll just be a few hours' delay. We can still get out of here by this afternoon."

Erin's face screwed up. "We won't have time for the hike!"

Maria immediately stepped forward. "Now, honey, we'll get some hiking in," she said, draping her arms around her daughter's shoulders. "It's a fairly benign hike, as it is. We won't miss much." Erin's face changed perceptively, her disappointment slowly changing to anger. She was about to turn on her mother, but before she could, Calvin stepped forward and took his daughter's shoulders in his hands.

He kissed his daughter on the forehead, and said, "Don't fret, honey, we'll just be late. It'll be fine!" He reached over and gave his wife a peck on the cheek, and said, "I'd better get ready." He gave them both a squeeze, then turned and opened his closet.

*Just let me get out of here in time—*

The tram deposited Calvin a floor below the CnC at fifteen minutes before ten. He'd almost missed that one, in the time it had taken him to change into more business-suited clothing, then attempt to soothe his daughter's ruffled feathers before he left. Not that it would have helped, as he'd just left Erin and Maria alone to stew over another trip to the park, and that was not a good situation. It seemed that, as much as Erin loved spending weekends and overnights in the Verdant parks, Maria seemed to be developing a growing loathing for it. It had become a constant battle with her, even to get her to come... the parks were simply not good enough for her.

"Not as good as Earth," she would say.

"*WhatEarth? Whereon Earth?*" would be his inevitable retort. There simply were no more pristine or virgin forests, no places where the air wasn't noticeably less than clear and blue, the temperature wasn't a bit too hot to make even a forest's shade comfortable, no coastlines that were fit to swim in. Unless, of course, you counted the pathetically few still-clean places that were now under governmental lock and key, to prevent wherever possible further damage being done to them by humans.

"Find us a nice place to go," he would say, "and we'll go." Anything to make her happy, *translation* , to stop her going on and on about it. And to her credit, Maria did look. But whatever she found always turned out, upon even a cursory inspection, to be restricted, submerged, fetid, or just plain gone. It had been decades since most of those places were habitable or even open... Calvin doubted even Maria had actually been to such a place in her childhood, though she always insisted that she had, *no* , I don't remember the name, it was *somewhere* near Raleigh, or near the *Ozarks* , you know, *that place* ...

It was making their time together more and more difficult, and that was making Calvin more and more short-tempered by the day. And for a media personality, being short-tempered was decidedly *not* an asset. Even now, as he rushed up the stairs to the CnC floor and found a moving sidewalk to speed his progress, he could not stop thinking about what this crisis, this worldwide crisis he was being summoned to discuss with the leaders of Verdant and the United States, would ultimately do to his marriage...

"Dr. Rios?"

The voice of one of the CnC's interns interrupted his reverie as he approached the CnC offices. "Oh, hi, Red. Have they started?"

"Not yet, sir," the intern replied, turning her body to the left. Her bright red pony-tailed hair invited him to follow. "They wanted me to bring you to conference room four when you arrived."

"Four?" That was one of the larger conference rooms. "Are we meeting with all of Congress, too?"

The intern grinned slightly. "I don't think it's a large group, Doctor. It's a security thing, I think."

Of course, Calvin mused: The President needed his security, and room four was best equipped with room for guards, cameras, and emergency exits. Dismissing that thought, then, his mind turned back to his own issues for a moment, and a new idea occurred to him. "Did anyone call Dr. Silver? I'd think she'd be more qualified than I to talk to the President about Verdant."

"I heard they couldn't reach her... or she couldn't get away in time, or something." Red looked back at him apologetically. *I'm just taking you where they told me to take you.* She looked like she was considering offering to find out for him, though he knew that it was not really in her job description to

cater to him.

“S’okay,” he said simply, and shrugged it off.

They arrived at the entrance to conference room four, where two healthy-looking men in black suits stood at either side of the double-door. When they saw him, one of them stepped forward with a hand scanner. “Dr. Rios?” Calvin nodded, extending his hand and placing his thumb upon the silvered oval of the scanner. After a second’s pause, a friendly-sounding series of beeps sounded, and the security man nodded. “Go on in.”

Calvin was only partially surprised that the President was not already there when he opened the door. Inside, Ceo Julian Lenz, Eo Reya Luis and Coo Aaron Hardy were already seated at one side of the table, Lenz in the middle of the three. “Morning,” Calvin said, and walked over to that side of the table, pulling up a chair next to Reya Luis at the far side.

“Good morning, Doctor,” Julian greeted him directly, while the other two nodded. They were all familiar with each other, Calvin being the Verdant Science Advisor... not really an official position, but a public and prestigious one. The Director of Science on Verdant was Dr. Jacqueline Silver, and Calvin was still amazed that she was not here ... but lacking her availability, he was usually next to be called for public or policy issues. “I assume,” Julian said once Calvin was seated, “that you’re familiar with the goings-on on Earth?”

“Unfortunately, yes,” Calvin replied sadly, mentally shifting into professional mode. “Things are going to be pretty rough for awhile. For everyone.”

“Yes,” Julian agreed. “The President just got off-planet himself before air traffic was officially grounded over all of North America. He may be here for awhile, too. And while he is, we expect him to renew his efforts to increase immigration quotas to the satellites, especially this one and Tranquil.”

“And ignore the facts?” Calvin asked. “Reputable scientists, the satellite GLISes, and every IS that has examined the issue say that the satellites are already above sustainable human capacity. Do they really think turning the sats into orbiting cattle-cars is going to help matters?”

“Doctor,” Reya spoke up next to him, “as far as we can determine, Earth may be stacking up bodies like cordwood soon. I don’t think looking for any way out will be beyond their interest... even if it’s not an optimum one.”

“We need to be firm,” Julian added. “We need to be able to give them the facts, and make clear why they must be followed... or we’ll be crash-landing this satellite on their doorstep, whether they like it or not.”

“I think it’s fair to say they wouldn’t be pleased about that,” Calvin agreed.

“So: You’re our Man of Reason today,” Julian said. “Be ready to be eloquent.”

Calvin smiled. “What happened to Dr. Silver?”

“Unavoidably detained,” Aaron volunteered. Apparently he felt he needed to supply more info, so he added: “She was sealed up in someone’s experiment chamber when we called. Hopefully she’ll be out soon enough to get here.”

There was a commotion outside, felt more than heard through the conference walls. A moment later, the double-doors opened, and President Lambert walked into the room, followed closely by Enu Thompson and Harley, the staffer. Two Verdant security guards followed them in, and took places at either side of the door, mirroring the American secret service men outside. On unspoken cue, everyone rose when the President entered. Lambert started around the table, and Ceo Lenz met him halfway, the two leaders shaking hands warmly. Though the title Ceo, due to its commercial roots, was generally less officious-sounding than a state title, as far as the U.N. was concerned, a Ceo of the satellites, being sovereign territories, were equal in stature to the President or any other country's ruler. Lambert and Julian exchanged the usual pleasantries, then Julian re-introduced Eo Luis and Coe Hardy to him. He concluded with an introduction to Calvin Rios.

"Dr. Rios," Lambert smiled, shaking Calvin's hand after Aaron's. "I've seen your news reports."

"Thank you, sir," Calvin replied noncommittally to a matter-of-fact statement, but had not expected more, so he smiled graciously.

In turn, the President re-introduced Thompson to the Verdant side of the table. Calvin was meeting Thompson for the first time, and he noted a strong handshake from the intense-looking African. Lambert then introduced the staffer, Harley, who seemed reasonably at-ease in the room full of heavyweights... or perhaps just too preoccupied with the reason he was there to worry about his credentials against theirs. They all sat down, and by custom, the leaders poured water into glasses and exchanged them; each took a sip, then allowed the others to help themselves.

"Are any of the latest ground reports encouraging?" Julian asked as an opening.

"I'm afraid not so good," Lambert replied. "The weather patterns are going crazy, all through North America. The ash has caused some freak storms, some of them with severe winds and lightning, and they've done a lot of spot damage. And the larger ash particles are already doing damage of their own. The Great Plains wind farms are trying to trim for extreme weather, but frankly, they weren't built for volcanic bombardment. Even if this thing ended tomorrow, it would take us years to clean up some of the damage we've already had."

"And," Calvin interrupted, "are geologists giving any idea yet when they think it might end?"

"None," Thompson replied. "Some of them suggest we may have been better off with one big eruption, instead of this constant stream. They think the final effect will be much more widespread."

"And they are probably right," Calvin confirmed. "Pre-existing weather patterns will have time to carry the ash further. A single eruption would create damage that was bad, but more localized. A constant outflow could potentially impact the entire planet."

"We're all in a bind now," the President said. "This is going to affect materials and goods transfer between the ground and the satellites."

"Our major economic engine," Julian added. The importing of raw materials and supplies to the satellites, and the exporting of products that were most efficiently made in orbit, constituted the primary trade between the ground and the satellites, and played a major part in keeping their joint economies rolling. With curtailed trade, the economies of both satellites and ground nations were going to be problematic at best. "We've already made arrangements to scale back factory operations, in expectation of that. We're also talking to vendors about ballistic deliveries, for the time being. Maybe you can help with that."

Lambert nodded. Sending shipments via ballistic rockets, essentially robotic guided missiles, was not as efficient, and they could not carry as much, as the big freighters, and everyone at the table knew this. It would suffice for small and emergency supplies, but not well, and not for long. “I’ll try to allocate additional resources to the ballistics manufacturers. Given the state of the atmosphere, we probably can’t expect those ballistics to last for more than a few flights. That’ll be tough, too.”

“Perhaps,” Thompson said, “it would be a good idea to provide us with your list of priority items. That way, we can concentrate our efforts to bolster shipments where it will do you the most good.”

“We can do that,” Aaron nodded. “And we’d be glad to prioritize our factory production towards your most critical needs . . . provided, of course, that you can get us the raw materials.”

“I foresee the need to balance our needs and your needs against the available cargo space on the ballistics,” Thompson stated. “That’s going to be difficult.” *Here it comes*, Calvin mused. “We might be able to help each other here, though. . . possibly an easing on expected product shipments from Verdant, in exchange for other concessions, to be named later.”

“Maybe we should name them now,” Julian suggested coolly.

Julian and Thompson locked eyes. Aaron, ever the stumbling diplomat, tried to help. “After all, we may need to start planning now for future changes to operations or resource allocation. We—”

“We’d like to see an easing of immigration quotas,” Thompson cut Aaron off. “Effective as soon as the flight restrictions are over.”

Julian continued to look at Thompson, and his expression lightened slightly, as if he was glad the real subject of the meeting was now out in the open. Aaron, already chastened by being interrupted, did not reply. Reya simply glanced expectantly at Calvin, and that was all the indication he needed that the ball was in his court.

“Mister Thompson, you know the data as well as we do,” Calvin started. “Your ISs and ours have all come to the identical conclusions: Verdant, Tranquil, Fertile and Qing, being limited biospaces, and designed as independently unsustainable as it is, are already over designed occupational capacity. They are drawing more resources than they are designed to handle, and producing more waste than they are designed to reprocess, due to the overpopulation that already exists.”

“Drawing those resources from us, I might add,” Thompson stated. “And we are accepting those waste products.”

“Which you shouldn’t have to,” Calvin pointed out. “We should be able to reprocess and recycle our own waste products. . . it’s more efficient than shipping it down, and shipping more resources back. Yes, our present overpopulation means we are using more than *our* share of *your* resources, and sending you more trash besides. For all of us, it’s generating a net loss. And if we allow more people up here, it will only make things less efficient up here, which will mean less for you.”

“The satellites are running in an ideal biospace situation,” Lambert pointed out. “Your use of materials and generation of waste are engineered according to that spec. But things are changing rapidly, Doctor. We can no longer afford the luxury of ideal living situations.”

“Can we afford shutting down the satellites?” Calvin asked plainly. “Because they are simply not able to be retrofitted to be cattle cars.”

“Who’s talking about cattle cars?” Thompson snapped. “We’re talking about maybe a five percent increase in immigration levels... probably just during the crisis.”

“That would mean almost tripling our resident population within a year,” Aaron retorted quickly. If nothing else, Calvin thought, Aaron knows his numbers. “We couldn’t operate like that at all.”

“Maybe not ideally,” Thompson admitted. “But under emergency conditions, we believe you can do it.”

“Do you?” Julian cocked an eyebrow. “And how many satellites do you run, Mister Thompson?”

“The United States provided the lion’s share of the funds *to build* Verdant and Tranquil,” Lambert stated.

“Under U.N. guidance and supervision,” Julian countered. “It was *not* a U.S. project.”

“We know something about how these satellites are put together,” Lambert insisted lightly, and inclined his head to Harley. Harley, in turn, held out a memory chip. “This is an emergency protocol outline that would allow Verdant to operate with as much as five times the current population.”

Reya allowed a rude noise to escape her lips, and looked at Harley’s chip with clear disdain. Aaron simply said, “Preposterous.” Julian and Lambert regarded each other stonily for a moment, and Calvin took the opportunity to accept the chip that Harley held out. Reya actually threw a mean glance at him, as if even accepting the chip somehow indicated their acceptance of its implication, or their willingness to discuss anything on it. But Calvin knew the only way to refute the evidence, was to look at it in the first place.

“We’ve taken the liberty of forwarding this to Geneva,” Thompson said.

Reya’s eyes snapped back to Thompson, and were now noticeably cold. She was managing to live up to the embodiment of the “fiery Latin temperament,” and Calvin idly considered whether there might be some *good-cop-bad-cop* staging at work here. Julian, clearly the good cop in this scenario, shrugged. “Just because the U.N. has a copy, doesn’t mean we will be overridden. The satellites are sovereign territory. The U.N. does not have the right to tell us to accept larger immigration quotas.”

“No,” Lambert agreed. “But they will know the facts. And if the U.S. finds it can no longer supply the resources we have in the past under current agreements, they will understand both sides of this story.”

“America’s usual side of the story,” Reya cut in. “*You want, we won’t give, so you invent a justification to take anyway* —”

Julian put out a hand in Reya’s direction, palm down. Reya subsided instantly, and looked to her superior, but her expression was not apologetic. “Mister President, it won’t be in either of our interests to fight over our joint resources and needs. We’ll need to work together to avert this crisis. But I’m afraid moving more people to the satellites is not the answer. Obviously I can’t speak for the other sats, but as for Verdant, we extend every desire to provide what tools, equipment and manufactured goods you need to help you get through this. But we cannot extend to compromising our safety and sustainability. After all, it won’t do to have to bring everyone here back down there... will it?”

Lambert regarded him evenly. “Ceo Lenz, the United States, and the world, is in a crisis situation. We need to use every means at our disposal to get *us all* through this crisis... and you should be aware that



that will mean changes to business as usual. We will all have to sacrifice a lot... *toget through this*," he finished, making a point to emphasize Julian's last words to him.

Lambert stood up, and the rest of the table stood with him. "I'll talk to our ballistics producers and suppliers," he said. "I'd like to suggest you consider the data on that chip. It may go a long way towards smoothing out the rough spots."

"We'll look at it," Julian said flatly.

~

At the end of the meeting, there was no shaking of hands on the way out. Lambert simply rose, nodded, turned, and headed for the door. Thompson and Harley followed him, only Harley sparing a glance behind him, which mostly rested on Calvin, before he left the room. The Verdant security guards stepped out of the room with them, and at Julian's nonverbal cue, the last one closed the door behind him.

The four of them sat back down at the table. Aaron was the first to speak: "Well, we knew it was coming, and there it is. They plan to blackmail us with immigrants for our supplies."

"Five times the population!" Reya sneered.

Calvin shrugged at her. "They know that number's ridiculous. They're just hoping to get us to settle for something in the middle... like two to three times the population."

"Not even twice," Aaron said. "We simply can't manage it." Julian looked at Calvin for a response.

"I agree," Calvin said without hesitation. "We couldn't produce enough clean air for twice the population, much less run anything else. If we don't starve first, or drown in our own sewage, it'll only be because we asphyxiated first."

"They must know that," Reya muttered. "They have the same data we have! How can they not know that?"

"They're desperate," Julian stated.

"And they don't live in such a closed system as this," Aaron added. "They can't comprehend the difficulties... the delicate balances involved... because they have a whole planet to absorb their messes."

"Not anymore," Reya muttered when Aaron paused. He continued on as if she hadn't spoken.

"They think, if they can just ship a few extra oxygen bottles, and more shovels to clean up the crap, we'll be all right." Calvin did a double-take... he hadn't expected even such a mild expletive as that to come out of Aaron's mouth. He generally wasn't the type to use colorful language.

"Well, how are we going to make it clear to them?" Reya asked.

"The only way we can," Julian replied. "We'll make it clear that we can't produce goods they need without the supplies we need. If pressed, we can get supplies from other countries."

"But at much higher cost," Aaron reminded him. "Few countries other than the U.S. are financially equipped to provide resources, in quantity, at a reasonable cost."

“Cost is cost,” Julian said. “Everyone’s going to be scrambling. If the biggest result of this global crisis is that we spend more money to get what we need... we can count ourselves damned lucky.”

“I don’t think any of us will get off that lucky,” Calvin stated.

The room went silent for a moment. “Probably not,” Julian finally admitted. After another moment’s pause, he turned to Calvin. “Doctor, we’re going to need to put together an official response to Geneva about that report.” He pointed at the chip in Calvin’s hand. “Specific refutations of whatever points in there that would compromise us. Go through it, use the GLIS to pull whatever hard data you need for your counter-report. Dr. Silver should be able to help you, so I’d advise getting to her ASAP—*wherevershe is*,” he added, casting an impatient look at Aaron. Back to Calvin, he said, “I want at least a preliminary by tomorrow morning.”

Calvin pursed his lips tightly. *There goes the camping trip. Goodbye, family harmony. Hello, doghouse.* Julian picked up on his obvious discomfort. “Yes?”

Calvin shook his head. “Nothing, sir, just some other plans I have to break. But I understand why this takes precedence.”

Julian nodded, and with that, the four of them rose to leave the conference room. As they walked out, Julian paused a step in order to drop a comforting hand on Calvin’s shoulder. “I’m sure your ‘other plans’ will appreciate the gravity of the situation.”

Calvin glanced at the older man, and smiled wryly. “Been a while since you were married, hasn’t it?”

Julian chuckled, and patted Calvin’s shoulder, allowing him to leave the room first and take a right turn that would take him away from the CnC. Once Calvin had moved off, Julian stopped, and his grin faded. Then he turned, stone-faced, and headed for CnC.

## 4: Politics

When Julian had returned to CnC, he saw Reya conferring with a small cluster of staffers in one corner, by their workstations. That group monitored Earth-based general news and communications channels... Verdant’s ears on the world below. When Reya saw Julian enter the room, she exchanged a few last words, then met him at the central workstation.

“Problems?” Julian asked when she was close. He quickly amended his question: “Other than the obvious?”

“General coms are registering a lot of talk about the satellites,” Reya explained. “Much more than usual. Talk about emigration, before it’s too late. About forcing the sats to provide aid and take on refugees. About cutting us off if we don’t.”

“Wonderful,” Julian said, keeping his voice down and his concern muted. “Isn’t anybody down there on our side?”

“Maybe the U.N.,” Reya replied. “But that’s just judging by their noticeable *lack* of response to the rest of this chatter.” Reya and Julian exchanged wry looks. “Keep in mind, these are civilians, and they don’t know anything about anything. But if they get organized enough to influence their governments...”

Julian nodded in understanding. “Tell them to keep an eye on it,” he indicated the com staffers. “But re-assign one of them to monitoring the official traffic. Have them watch for any increased activity. Or... or a noticeable *cessation* of activity.”

Reya knew what that implied: Blackouts and major changes in official com traffic often indicated an effort to hide something. “On a lighter note,” she continued, “there’s an indication that weather patterns are allowing an occasional negotiable hole in the atmo, large enough to get ships through. If they’re timed properly.”

“Really?” Julian perked up a bit. “A sign that the caldera is lightening up?”

“Don’t think so,” Reya shook her head. “We think it’s just random weather, and a little good luck, providing an air pocket or two. They may not last.”

“Coordinate with the GAA,” Julian ordered. “Maybe we can get a little bit of traffic going. And get me a secure channel to CnC Tranquil. I’ll take it in my office.”

By the time Julian reached his desk, an indicator blinked its readiness to make his connection. He tapped the indicator, and a screen lit up under the glass surface of the desk. A kind and familiar face looked back at him, and smiled.

“Good morning, Lynn,” Julian greeted her. Evelyn Volov was the Ceo of Tranquil, Verdant’s sister-satellite. She was an old friend—Julian had recommended her for the position on Tranquil, and she had promptly assumed it upon the retirement of its former Ceo.

“*Morning, Jules. How are things in the north?*” She opened with a familiar exchange of theirs, a running joke that extended all the way back to college, when they had been more than just friends.

“About as well as can be expected,” Julian replied. “And how are things in the south?”

“*Could be better...*” That was a different response than usual, which told Julian all he needed to know about the seriousness of the situation. “*I understand President Lambert made it up to you before the flight restrictions grounded everyone.*”

“I just got out of a meeting with him, as a matter of fact,” Julian admitted. “Nice guy. Wouldn’t want to be in his shoes right now.”

“*I wouldn’t want to be in yours, hosting him. I bet I know what you talked about.*”

“You’d win the bet,” Julian nodded. The subject of satellite immigration quotas never seemed to go away, even in relatively good times—though Julian was not so sure they’d actually had any of those since the first sats had been finished—and were not likely to go away now. “Have you been getting any renewed pressure from the ground lately?”

On the screen, Evelyn nodded sadly. “*For the past two days... from seven countries and too many vendors to count. Mostly leaders and Ceos, arguing for ‘their people,’ but you can tell it’s mainly for themselves. We’re monitoring a lot of ground talk about coming up here, whether we like it or*

*not.*”

“We’re hearing that, too,” Julian said.

“*You’re not giving in, are you?*” The concern in Evelyn’s voice was genuine, but it was not simply concern for Verdant: If Verdant admitted more immigrants, others would use it as precedent to force the issue with the other sats.

“We’re standing firm,” Julian told her. “My people are preparing reports to present to the U.N., to counter a report the U.S. sent to them arguing for increased quotas...”

*“They didn’t.”*

“Oh, yes, they did. There’s nothing to it, of course... it’s a PR document. But we have some good PR people up here, too... like Calvin Rios.”

*“TheUniverse3host?”* Evelyn’s mouth opened in surprise. *“I wondered what happened to that guy! He’s been on Verdant?”*

“He and his family moved here in ‘21,” Julian replied. “We’ve had him on retainer as science advisor since ‘26. He’s working on the counter-report with our Dr. Silver. I’ll be glad to send you a copy when it’s done.”

*“Please,”* Evelyn nodded. *“Every little bit helps. I don’t know about you, Jules... but I don’t expect this to turn out well.”*

“Right now,” Julian admitted, “I’m not optimistic, either.”

*“Have you seen the latest data from Qing? Their air quality is down to 88 percent already. But they can’t stop the Mainland from sending people up there.”*

“They’re insane,” Julian said, referring to their host country, China, as opposed to the satellite. Qing, Chinese for “Lush,” was the third satellite, commissioned and built strictly by the Chinese. Unlike Verdant and Tranquil, which were constructed under a U.N. charter, Qing was considered property of China, essentially an orbital nation-state of their own. And despite data that told them otherwise, the Chinese government was well on its way to packing its citizens in there as tightly as they were packed on the ground. No one could see any outcome for Qing other than disaster... Julian did not look forward to the day he woke up and heard that the population of that sat had suffocated overnight.

“Nothing new from Fertile?” Fertile was the fourth satellite, the last that Earth could afford, financed primarily by the last riches of the Arab oil barons, and populated mostly by Africans and Middle-Easterners. “I understand they’re still holding their own.”

*“As far as we can tell... we don’t get much news from them.”* Neither did Verdant, Qing, nor the U.N.; Julian hoped that was not a bad sign of their future. As high as the international hopes for the satellite project had been originally, it was disappointing to see where reality had taken them.

As Julian mused, Evelyn went on: *“Does Verdant have any defensive capabilities?”*

“You know we don’t,” Julian replied. “It’s against the treaty.”

*“So is invasion,” Evelyn pointed out. “But I sincerely doubt most countries will let a little treaty stand in their way. As long as we’re sending documents back and forth, I’ll send you one... a study our people have prepared on this situation. Perhaps it’ll help.”*

“Every little bit,” Julian smiled. He caught something in Evelyn’s eye... something that perhaps only an old friend would have seen. “Do me a favor, and send it encrypted to me. I wouldn’t want any civilians intercepting it to be concerned.”

*“No problem,” Evelyn replied, and smiled a confident smile. They knew each other well. Perhaps there was hope after all. “Let me know if your situation changes, Jules.”*

“And you,” Julian said. “Keep us posted. Watch your back, Lynn.”

*“Don’t turn your back on the south,” Evelyn told him. “Bye, Jules.”*

“Bye.” She allowed him to break the connection. For a moment, Julian could clearly see the ghost of Evelyn’s image on the screen. Despite the fact that the years had not been as kind to her as they had been to him, part of him wished he had the luxury of staring at her face all day... maybe in another reality, he did exactly that. But in this reality, they were separated by their jobs, almost thirty years, and a few thousand miles of empty space... and he simply did not have the time to dwell on it.

A beep on his desktop signaled the intercom. Reya’s voice spoke: *“We have a document coming in from Tranquil, encrypted to you.”*

“Yeah,” Julian said, “send it to this station.” The intercom clicked off, and a moment later, the document icon appeared on his desktop. Julian used his thumbprint on the desk’s scanner to open the document, and began reading. His eyes narrowed perceptively. *Lynn was right to encrypt this.*

*The question is: What can I do with it?*

~

The greenspace just outside of the CnC offices afforded a quiet place for Calvin to pause for a moment. He found an empty bench, in an area of the greenspace with relatively little traffic, and sat down on one end of it, turning his body so it faced away from the rest of the bench and towards a small copse of bushes. He hoped his obvious choice of position would warn off the strangers that his mild celebrity occasionally attracted... right now, he wanted the privacy. He keyed the connection to his home, and waited unhappily for his wife or daughter to answer.

He got Maria, and he was almost sorry he had. He actually would have felt better giving the news to Erin directly, rather than having Maria relay it to her. He was sure Erin would take it better from him. But he had no choice but to push on.

*“Hi, Cal,” Maria answered. “How did the meeting go?”*

“Not well,” Calvin replied. “I’ve been roped into a job I can’t get out of. Let Erin know, I have to cancel the camping trip. Tell her I’m so sorry.”

To her credit, Maria’s face fell. *“Oh, she’ll be so upset.”* No pretense that the cancellation bothered her personally... they all knew they were beyond that. But at least she still had some sympathy for Erin’s enjoyment of the parks.

“I know,” Calvin said. “Believe me, if there was any way I could get out of this, I would. But the situation between the sats and Earth is bad. Very bad. I need to work up a report that will keep us from getting inundated with planetary refugees, by morning.”

*“Even I have to admit, that’s more than a good reason to cancel a camping trip,”* Maria said wryly. *“I’ll try to break it to her gently. Will you be home soon?”*

“I have to go to the science sections first,” Calvin replied. “I don’t know how long I’ll be. But I’ll try to be back soon.”

*“All right. See you then.”* She closed the connection, leaving Calvin alone on the bench. He could picture the scene at home: Maria “breaking the news gently” to Erin; Erin either pitching a fit, or just openly sulking about the situation; Maria managing to say something insensitive, about the parks essentially not being anything to miss; and... the fireworks. Ever since Maria had essentially gone incurably romantic on Earth’s rapidly-vanishing natural resources, and subsequently turned on the satellites’ idea of nature, she had become almost a pain to take on the camping trips. She spent so much time comparing *this* to something on Earth, or *that* to some famous, now-probably-vanished Terran landmark, and everything on Verdant was found wanting.

They had been forced to leave their home in Maryland, when the levees began failing more and more often, and the rising waters made it all but impossible to travel in the region without a pilot’s license... or a raft. Already, so much had been lost on the ground, so much of civilization that had been crowded up against the coastal areas had been flooded and irrevocably lost to sea level rise. He had not wanted his wife and daughter to have to endure the rapidly deteriorating situation on the ground, and considered the opportunity to move to Verdant a godsend. Calvin counted themselves lucky they had been able to emigrate at all, in large part thanks to his position in the media at the time; so many other families had not been able to make the trip.

But at times like this, he almost wished they had stayed on Earth and moved into a houseboat.

Eventually, he pulled himself up and started for the main science floor. It was actually the same floor that CnC was on, floor 1, but it required a short tram ride, as the cylinder for that floor did not extend all the way from the north to the south ends of Verdant. Like most of the cylindrical floors of Verdant, there were one or two gaps in its length, which provided for a more open layout in the satellite, a largely psychological feature that made life in the huge enclosed space bearable. The part of Floor 1 that included CnC and other administrative offices was connected to the north end of the satellite. The main science sections were in a cylinder that spanned the center of the length of the satellite. Then another gap separated that from the main manufacturing floors, connected to the south end of Verdant.

Calvin caught a tram at a nearby terminal, and settled in for the ride. The trams that ran across the cylinder breaks did so in sealed tubes, the top half of which was open, so passengers could see the view above the trams. Calvin glanced outward, but at Floor 1, there was not much to see: The central shaft, Floor 0, was almost immediately above them, and quite effectively eclipsed the rest of the satellite’s interior by taking up about two-thirds of the view. Only a few floors down, and the view from the trams became spectacular: You could see up through the open cylinder floors, all the way to Floor 20, on the opposite side of the satellite’s outer cylinder; and there was no more impressive sight in a satellite than looking “up there at the ground,” as the songwriter Toni Clear had famously described it.

A few people were on the tram, maybe fewer than usual for that time of day... despite the ability of most satellite residents to do their work in their homes or other preferred locations, people still found

themselves out and about during the day, running errands, meeting colleagues, and making plans. Calvin noticed a young girl in a group of girls who was staring at him, and when he looked up, she smiled, stood up and approached him. “Dr. Rios?”

“That’s me,” Calvin smiled amiably, trying not to look as distracted as he was. The girl turned out to be a fan of his science program, *Universe3*, and as her friends watched from across the tram, she began to gush, not too embarrassingly, about the enjoyment she got out of the class as a child. And something else was in her eye as well: Being handsome and in good trim, Mediterranean Euro-model looks (despite his Spanish surname, his family was largely from the Swiss highlands), and a distinguished mix of salt-and-pepper hair, Calvin had the kind of looks that went over well in the media, presenting a distinct air of intelligence and authority, plus an attractiveness and approachability that encouraged people to watch him; and he could tell this girl, now in her late-teens, was at that stage where she was taking more notice of men in general, and gauging them sexually. He guessed he was gauging well.

She quickly produced her clipbook and brought up a page, which he noticed was filled with signatures of all kinds of people, a few of which he actually recognized (he assumed the signatures he did not recognize were of popular singers or actors she had managed to meet... *kids never change*, he reflected). He took her stylus and dashed off what had been his program’s signature closer—“*We can’t possibly imagine!*”—followed by his personal signature. The girl thanked him profusely, and backed off respectfully, then hurried back among her friends and proudly showed off her newly-collected autograph.

Another passenger, a woman who was close enough to listen to the exchange between Calvin and the girl, watched with Calvin as the girl strutted with her friends, until they all left at the next stop. Then, once the tram had started moving again, she turned to Calvin and said, “Dr. Rios, do you think Earth is going to be all right?”

Calvin looked at the woman, and his smile faded a bit, but he made it a point to put on an air of hope for her. “I sure hope so,” he said after a moment. “I don’t know what we’d do without her.”

~

The main science complex filled the space from Floor 1 to the center, right up to the supply lines of the non-rotating Floor 0. Much of the research and development carried on in the science section was done in counter-rotating drums that resided just above the office floors, designed to take full advantage of the microgravity afforded them by being in orbit to study and fabricate things that were difficult to impossible to do on Earth. Experiments in new materials and compounds, methods of fabrication, and analysis of the effect of microgravity on otherwise-well-known materials, were carried out here.

It had been the first orbital research and manufacturing facilities, launched in the early-twenty-first century, which had cracked the fabrication problems of the most useful fullerene processes, perfected the migraponic growth system, and created a more efficient architecture for electronics. For decades, various products and manufacturing processes optimized for microgravity and hard vacuum were carried out in the orbital facilities, while more data was collected on long-term human habitation in space, specifically, long-term effects of microgravity and various proportions of 0- and 1-gee environments on human and other organisms. Their initial designs, and some trial and error, eventually led to the layouts used in the science and manufacturing sections of Floors 0 and 1. Although a few of the old orbital facilities were still in use, most of them, including the original Seven Heavens Conglomerate facility, were now maintained as orbital training facilities, or carried on much more specialized work.

Calvin navigated the curved floors of the complex, much more pronounced here than they were at lower floors, until he reached the executive offices of the science section, and had no trouble finding Dr. Silver’s

office suites. As he approached, he reflected on the fact that this was actually his first visit to Dr. Silver's office, having always spoken to her at some function elsewhere. He entered a small anteroom with comfortable chairs along each wall to the left and right, and a single door on the opposite side of the room, with a simple plaque that read: "Science Director."

An artificial voice emanated from the air above the room as Calvin entered: "Good morning, sir. May we help you?"

"Dr. Calvin Rios," Calvin stated, "to see Dr. Silver."

"Of course, Dr. Silver is expecting you. Please go in."

The door clicked and slid open a few centimeters. Calvin stepped forward, took the handle and slid the door open the rest of the way. It opened into a comfortable office, lightly decorated in up-to-date carbons and glass, and with a group of large potted plants on the side of the room to Calvin's left. The wall opposite the door was dominated by a 3-D display column that was empty at the moment. The right side of the room held an executive workstation, and seated behind it, Dr. Jacqueline Silver, who was already standing up at Calvin's approach.

Dr. Silver was a few years older than Calvin, with strong but attractive Native American features, a trim figure and dark but lovely eyes. Her dark hair was mostly straight and pulled back into a bun, but she allowed some of it to spill over her forehead in attractive bangs. The two of them had been introduced soon after he'd arrived on Verdant, and not long thereafter, Ceo Lenz had asked him to be the satellite's Science Advisor. Maria had instantly become suspicious, and possibly threatened by this powerful and attractive woman whom she felt had orchestrated the position. But as it turned out, the two of them hardly interacted, other than through intermediaries, or at brief meetings, public lunches and dinners (which, considering Maria, was probably just as well). She largely administrated and did practical work, and he acted in a more advisory, "theoretic" capacity with the CnC.

But despite their professional similarities, the fact was she was far and above Calvin's superior in science—she had dual PhDs in practical and theoretical physics, while his specialty was actually mathematics—and they both knew it. That unevenness had made some of their past meetings awkward, and Calvin never felt truly at-ease around her.

"Hello, Dr. Rios," she said casually, offering a hand that was noticeably darker in skin tone than his own. "Julian told me to expect you. How are you?"

"Okay," Calvin replied, shaking her hand. "And you? Keeping busy, I understand."

"Of course," she replied, then did a double-take. "Oh: You mean today." She smiled wryly, and indicated a chair by the desk. As Calvin sat down, she leaned against the front of her desk, close to the chair. "Yes, there's nothing like being stuck in a sealed room and having to tell your boss you can't come when the President comes calling. I'm sure I won't hear the end of that for awhile."

"What were you in the middle of?"

Dr. Silver inclined her eyes skyward and arched her eyebrows sadly. "I was standing in an EM isolation chamber during a transmission test; they couldn't get a signal in to me. It's my own fault, really... I hadn't realized before I went in that they needed to keep the room sealed, or it would ruin their data stream... and the test was to *bethree hours long*. So I just watched the experiment and waited it out. Thank God I'd been to the bathroom first!" Calvin laughed appropriately, though it seemed to him her story was



deliberately skewed to put him at ease. Dr. Silver shrugged and winced. “I got word once it was done and we unsealed the room, but by then the meeting was already over.”

“Ah. Well, obviously, you know what the meeting was about. . . I’m sure they sent you details?”

“Of course,” Dr. Silver replied, arching backwards over the desk to tap something on her workstation. Calvin tried not to stare at the swell of her chest as she did so. Below the glass surface of the desk, lines of text appeared. “Lambert is trying to force Verdant into accepting some of his tired, poor, huddled masses.”

“Undiplomatic. . . but well-put,” Calvin replied. “Julian wants me to prepare a counter-report to the data the President sent to the U.N. to support his emigration position. I wanted to start with your office.”

“Yes, well,” Silver replied, “you have access to the GLIS.”

“Of course,” Calvin nodded. “But I want more than straight data. They have that same data. They’ve already figured out how to spin that data their way. I need an effective way to spin it back to our side of the table.”

Silver considered him. “Mmm.” She pushed off of the desk and walked around it, seating herself back at her chair. “‘Spinning data’ isn’t exactly the kind of thing we do here, Doctor.”

“I know, I know,” Calvin said. “Practical application.” He had used a phrase he had heard her use many times to describe the type of work that went on in the science section. Dr. Silver nodded: *That’s exactly right.* “But we both know there are ways to present data. . . and ways to present data. All I’m looking for is some help identifying the best ways for us, so that our. . . presentation. . . is effective.”

“Sure, I get it,” Silver said, though he had the impression from the tone of her voice that she was not thrilled about it. It was not that hard for him to believe that this career scientist would rather accept shiploads of refugees than fake scientific data. . . even if it would mean the ruination of Verdant.

But she extended her hand. “Why don’t we start with their report? See what there is that we can easily refute. And maybe go from there.”

“Sounds like a plan,” Calvin agreed, and pulled the data chip from his pocket.

~

When President Lambert and Chief of Staff Thompson returned to the compound, they spoke little as they passed through the diplomatic offices and up to the Executive floor. It was obvious from the looks on their faces that their meeting with the Verdant leaders had not gone as well as they’d hoped.

They had talked over the results of the meeting on the way back, and were unhappy about the fact that their bluff had failed to break down Ceo Lenz’s convictions about the immigration quotas. “Perhaps were a bit heavy-handed,” Thompson admitted to Lambert. “But if nothing else, they are aware of how serious we consider this situation. . . and how much pressure they’re likely to see because of it.”

“But the minute they examine the report data,” Lambert stated, “they’ll know how empty our hand is. That data is obviously skewed in our favor, and I’d bet their scientist, Rios, can concoct a report that skews it right back.”

“But ours went to Geneva first,” Harley had pointed out. “That counts a lot in our favor... it puts Verdant on the defensive, and any data they send to Geneva will be colored by that position.”

“That won’t be enough for Geneva,” Lambert had lamented. “We’ll need more.”

Now, back at the compound, Thompson disappeared into his office, while Lambert went to his own office and settled in at his desk.

A few minutes after he’d arrived, there was a knock at the door. The door opened, and Shay Vaughn poked her head in. A quick glance confirmed that she was welcome to enter, and she pushed the door open the rest of the way. Unlike the revealing dress she’d had on the day before, Shay now wore a tailored pinstriped business suit that still managed to highlight the best aspects of her sumptuous figure. She strode in on scandalously high heels and took a seat at a chair adjacent to the desk... from there, the desk did not block Lambert’s view of her, and she crossed her legs casually as he took her in.

“I take it,” she said, “that your meeting didn’t go as well as you’d hoped.”

“It’s that obvious, isn’t it?” Lambert grimaced and leaned far back in his chair. “Verdant doesn’t seem too impressed by our sole bargaining chip, we don’t have enough to get Geneva to put pressure on them, and things are not looking promising.”

Shay nodded sympathetically. Lambert had been so out-of-sorts from their rushed evacuation the day before that he had not wanted to talk about the situation last night, though he had been more forthcoming in the morning. Now, though the situation sounded no better, at least he seemed to be himself again.

“I can’t imagine,” Shay commented, “how Verdant, or any of the satellites, could survive without regular supplies from the ground. If they refuse to believe that now, they’re bound to come to the realization after deliveries stop.”

“They can’t survive,” Lambert assured her. “They’re not designed to survive independently. Sooner or later, they need infusions from Earth.”

“Well then, maybe making it sooner...” Lambert looked at Shay, who eyed him expectantly. “After all, you run the country,” she continued after a moment. “You have some influence on the manufacturers and freight companies. You must be able to force the issue, at least long enough to make the satellites feel it.”

“Not the way I’d prefer to do that,” Lambert commented.

“But it’s a national emergency.”

“Yes, it is.”

“Perhaps,” Shay said slowly, measuring her words, “if the freight companies were more directly involved in the negotiations.” Lambert looked at her. “After all, they’re the ones who are being asked to risk their vehicles, their pilots and freight, to get here and go back. Maybe they won’t be willing to take such risks on their own. But with U.S. government support, maybe they’ll accept more of the risk. And if Verdant will accept the U.S.’s conditions... maybe you’d be glad to extend that help...”

Lambert considered her suggestion silently, idly watching her as he did so, his lips characteristically pursed in thought. Shay waited patiently, smiling helpfully and shifting back in the chair to put a bit more tension on the fabric across her breasts.

Finally, he reached one hand out and tapped the intercom to Thompson's office. "Enu, where are we?"

*"I just finished talking to one of our diplomats. She's going to see what kind of inside information she can get out of the CnC on our behalf."*

"Good," Lambert said. "Come to my office. Something we should try."

## 5: The Diplomat

### 07Aug2229

"I have a contact at thirty-two by dash-niner-two, orbit-bound." Lieutenant Henry "Hunter" Reilly nudged the stick and brought his stocky orbital fighter about a few degrees, to bring his more powerful forward sensors to bear on the target. After a moment, the readout next to his sensor screen began filling with numbers. "Broadcasting in the green, freight ballistic, homing on Verdant Interpoint B." About two seconds passed when he was done speaking, which prompted him to key his mike again. "Goldie, you awake there?"

"Yeah, yeah, I got it." Lieutenant Goldie Maina brought her gaze back from the wide red stain spreading over the planet below, and back to her screens. "Confirmed freight ballistic homing on Verdant Interpoint B—"

"Bad enough everything's going to hell down below," Hunter interrupted her over the open com. "Then we pull busy-work, babysitting freight deliveries. And all you want to do is sight-see."

"Oh, I'm sorry," Goldie replied, "maybe you'd rather have a scintillating conversation on the last Orbits game?" She heard a rude noise over her com. "Then eat it. Come on, Hunter, look down there! You can't tell me that doesn't do something to you. It's a disaster! It makes me ill just looking at it."

"Then don't look," Hunter told her. "Yeah, I know what's going on down there. But I'm more concerned about my job up here, and I suggest you be the same."

The two pilots were about a mile apart, in stationary position between Verdant and the ground. They were flying Wasp-class fighters, the standard offensive-slash-defensive craft used by three of the four satellites (Qing pilots flew Chinese-made "Battle of San Kwai"-class fighters, but they were essentially the same in design). The Wasp's class-name belied the craft's bulky, non-aerodynamic lines and extended maneuvering jet pods... they were designed to be orbital craft. They could fly atmospheric, but only by virtue of their brute-force Hammerhead rocket engines, which allowed even their ungainly shapes to successfully navigate in air and, supposedly, even in water. Nonetheless, they were excellent orbital fighters that no atmospheric craft could match in their home element, open space.

Under normal conditions, the Wasps would be more active, tracking and on-the-fly checking of incoming and outgoing freighters, and monitoring for any signs of local debris or other objects to be de-orbited or vaporized. But with the flight lockdown over North America, the only thing they were expecting to see were the only things that could reliably get through the ash layer—ballistic rockets. The

ballistics were stupid, pilot-less and barely-automated... not much different than their predecessors from the beginning of the space age... but they were rugged enough to take a beating in bad atmo and still make deliveries. They were launched from the few facilities that still catered to ballistic systems, essentially thrown into orbit, to be caught by one of the Interception Point nets that maintained station beside Verdant.

Not often, but occasionally, a ballistic came in off-course, or came in too hot, making them a danger to the nets, and to the satellites. That was why the satellite escorts had to monitor all incoming ballistics, and to be prepared to act in the event that one posed a hazard. It had been four years since the last such incident (an errant ballistic that had missed every mark due to an engine malfunction, and had ended up plowing into the Sun's corona a year later), and the replacement of ballistics with crewed freighters over the last century seriously lessened the likelihood of another accident. But regulations were regulations, rotations were rotations, and Hunter and Goldie had pulled that morning's short straw.

Goldie was a good officer and pilot... as good a pilot as Hunter, and certainly less hard-nosed. Not that Hunter was a bad officer, or a bad person, but he was scrupulously by-the-book, he didn't fool around with his job. Goldie could easily picture him right at home in the middle of an old-style war, flying jets over Europe or Asia or Venezuela, spewing orders while coolly locking onto his opponents and sending a brace of heat-seeking missiles up their asses. Then coming home, filling out his reports, and stopping on the way home to have a beer at the PX and keep his eye on the non-coms who still thought war was fun.

Goldie, by contrast, was much more easy-going, and plenty satisfied with the more security-like aspects of the job, standing by to keep people safe. She had no desire to go to war, and the sights below her unnerved her. Any minute now, she expected to see fleets of transports and passenger ships, carrying desperate refugees intent on getting aboard the satellites... and she didn't want to be the person between them and their expected salvation.

*"Wasps three and four, this is CnC," came a voice over their com. "We're getting reports from GAA that weather patterns are opening up a few small gaps in the ash cover. A few freighters have clearance to slip through, if they can hit the window. Hold onto your seats, and you may have some standard traffic to track soon."*

"That's nice to hear, CnC," Goldie responded. "Keep us posted." She keyed back to her partner. "That sounds like good news. If Earth can at least get through an occasional pocket in the atmo, our supplies situation up here might not get too bad."

"Yeah... maybe we'll be set at 'critical,' instead of 'desperate'," Hunter commented, but his voice was not mocking or rancorous. He was merely stating what everyone knew as fact: Verdant's situation would not be good if regular freight deliveries could not be maintained. Even regular ballistic flights could only manage a bare subsistence-level rate of resupply. And on day three of the continued eruption of the caldera, it did not look like it was going to let up anytime soon.

He glanced back at his panel. "Ballistic is on a positive track," he reported. As it passed their vicinity, Hunter brought his Wasp around to track it. A flash of light caught Hunter's eye, and he glanced starboard, beyond the ballistic and the interception nets. In the distance, barely distinguishable in the glare of the Moon, was the small round pod used by the science department. Hunter knew it was being used for some kind of experiments, but in their current situation, he couldn't imagine why it hadn't been shut down until the crisis was over. "Now, what the hell could they be doing in that pod that's more important than saving resources right now?"

"They have their own power plant," Goldie commented, once she realized what he was referring to.

“They’re probably not using that much power.”

Hunter just eyed the pod in irritation. “Can’t be anything useful.”

~

“Let’s see the hole,” Reya requested. The CnC staffer held up a datapad that displayed the real-time weather data, and Reya took it and held it up for Julian to see.

“Not much of one,” Julian commented drily.

Reya nodded. “Hopefully someone will be able to hit it, before it’s gone.” She turned to the rest of the staff, in the section of the room that monitored ground traffic. “Does anyone have a launch confirmation?”

“Just one so far,” a staffer reported. “A Lusterne freighter from Colorado, just got off, they’re swinging southwest to catch the window now.”

“Which one?” Julian asked.

The staffer checked his board before replying: “The *El Capitan* .”

“Oy,” Julian grimaced.

Reya, seeing his reaction, grinned, and nudged Julian lightly. “They’ll be fine. Just be glad they’re coming.”

“I’ll be glad when they’re here,” Julian told her, handing the datapad back to her.

“Relax,” Reya admonished him. “I understand their pilot is pretty good.” Julian flashed her a wry smile, but said nothing. “Anyway, GAA wouldn’t give them clearance if it wasn’t safe enough. And if it closes before they get there, they’ll be told to land. You know Martin, he’s not going to do anything stupid.”

Julian eventually nodded and said, “Keep an eye on them.”

“Jules.” Julian turned to see Aaron Hardy and Calvin Rios entering the room. Aaron looked confident and purposeful. Calvin just looked tired, as if he’d gotten little sleep. As Aaron approached, he held up a pad. “Dr. Rios’ report. I’ve given it a once-over, and it looks like it counters the U.S. arguments pretty nicely.”

“Thank you,” Julian said, taking the pad and thumbing through its contents. Aaron and Calvin stood by silently as he gave the report a cursory examination, nodding at an occasional point. Calvin at times seemed to be imminently ready to nod off, and Reya considered pointing him to a chair. “Very good. Nicely laid out, Doctor,” Julian said. “And all the hard data is backed up by the GLIS?”

“Yes, sir, all of it,” Calvin replied, the opportunity to speak seemingly re-energizing him, at least for the moment.

“Well, it looks like just what we wanted,” Julian nodded, handing it to Reya. “Prepare that for transmission to Geneva. I’ll add some comments to it first.” He turned back to Calvin. “You’ve earned some rest, Doctor. But before you go...”

Calvin was so tired, that he didn't immediately notice Julian's voice trail off. When he picked up on it, a moment later, he also realized that the tone of the room had suddenly changed. He looked at Julian, and realized he was looking past him. So was Aaron... and every other person in the CnC. Calvin turned to follow their gazes, and found himself looking at the woman who stood at the entrance to CnC, a security guard at her side.

The guard identified Ceo Lenz, and pointed him out to the woman. The woman smiled to the guard and brushed a hand across his arm, the gesture clear. Then she clasped her hands in front of her and walked across the room, with a stride that was smooth and subtle, but still eye-catching. The woman was eye-catching herself, with a light-tropical skin tone and the fine-boned, part-African, part-European features that suggested an Egyptian background, and impeccably-styled sable hair that terminated just before her shoulders. Her tailored suit accentuated a tall figure and attractive-but-not-too-generous curves.

As she approached, Reya swept the room with her eyes, silently coaxing everyone back to work. The woman extended a hand to Julian as she came near... in her heels, she was almost as tall as Julian and Aaron, and maybe a few centimeters taller than Calvin. "Ceo Lenz," she announced, "I'm Kristine Fawkes, from the U.S. diplomatic corps."

Julian studied her face quickly, his face impassive, before finally taking her hand. "Miss Fawkes. What can I do for you?"

"Sir," the woman replied, "the President has asked me to interface with CnC, in order to try to iron out some of the issues at hand. The U.S. and Verdant can't afford at this time to allow misunderstandings and missteps to jeopardize our future, any more than it has already been hampered by the current ground-based weather problems." Miss Fawkes took in Reya, Aaron and Calvin in turn, before looking back to Julian. "Frankly, he'd like to have me identify any areas where we can be more mutually beneficial... and that means having me learn more about Verdant's operations. In turn, I am at your disposal to ask any questions about the U.S.'s situation, to make their positions clear to you."

"Mm... I see," Julian nodded non-committally. He indicated the others around him. "My Eo, Reya Luis... Coe Aaron Hardy." She shook each of their hands in turn. "And our science advisor, Dr. Calvin Rios."

"Hello, Dr. Rios," she shook his hand. "I was a fan of your program. I was sorry to see it go off the air. Certainly not a reflection on you?"

"More of sponsors and ratings," Calvin replied. "But it's nice of you to say."

"It's a pleasure to meet you... all of you. I hope my presence won't be an imposition; I don't want to interfere with your standard operations."

"Shouldn't be a problem, Miss Fawkes," Julian said lightly. "We'll be glad to steer you out of trouble if necessary."

Her response to Julian's comment was a bright smile, one that threatened to bring the room's activity to another stop. "Please, call me Kris," she said, and nodded to each of them. "Um... perhaps, sir, if I can just take things in as you-all work? I wouldn't mind seeing how you do things here..."

"That will be fine," Julian said. "Aaron, perhaps you should tell her about the report. Her boss is going to know about it soon, anyway. Dr. Rios, stay for a moment, then join me in my office. Excuse us," he

addressed to Kris. Then he led Reya aside, ostensibly to discuss the datapad she had in her hands.

Once they were out of earshot of their visitor, Reya said, “About as subtle as a brick, huh?”

Julian grinned and pointedly avoided looking back at Kris Fawkes, who was now speaking to Aaron and Calvin. “It’s okay. Her being here just lets us know how little Lambert has to go on. Get that ready to send, while I work up my comments.” Reya nodded and started back into center of CnC, sparing more significant glances at some of the staffers to stop their staring at the visitor and get them back to work. Julian motioned to Calvin, and the two of them went into his office.

Kris noted their exit, and Aaron noted her notice. She turned back to him and smiled sympathetically. “I know how this all looks... it’s quite obvious the President wants me to fish for something that will help keep the trade lines going.”

Aaron returned her sympathetic look, and said, “Yes, well, you can’t blame him for trying to do right by his country.”

“Of course not,” Kris replied, picking up on Aaron’s receptiveness. “I mean, this is how politics works, doesn’t it?”

“It sure does...”

Inside Julian’s office, the Ceo indicated a chair for Calvin. Calvin sank gratefully into it as Julian moved behind his desk. “I can see you’re tired, Doctor. I’ll only keep you a minute.”

“Of course, sir,” Calvin replied, smiling lightly.

“I have something new I want you to look into. Not today, mind you... get some sleep, first. But soon.” He opened a drawer, reached in, and held up a chip like the one he had handed Calvin the day before. “I received this from our peers at Tranquil yesterday. Apparently, they, in direct violation of U.N. treaty, have been actively pursuing R&D into defensive weaponry for the satellite.”

It took only a moment for Calvin’s eyes to clear. He straightened up in his chair and croaked in a small voice, “What?”

“Yes,” Julian nodded gravely. “Unfortunately, they haven’t gotten very far. But there is one area that they felt might have great promise... they just don’t have the expertise to crack it. But between you, Dr. Silver and the rest of her staff... Tranquil’s Ceo thought we might have a better chance.”

He leaned forward with the chip, and Calvin reached forward to take it. “Have you seen it? What is it?”

Julian nodded again. “Put simply... it’s a force field.”

Calvin dropped his head, looked at Julian through raised brows, and his voice dropped almost a full octave. “You’re kidding.”

“Yeah, I know how it sounds. *Brane Boystuff*,” Julian said, making reference to a popular entertainment program about a boy who, with his friends, used a pseudo-scientific device of his own making to travel to different realities, or “branes,” where they experienced incredible adventures every episode. “Nonetheless,” he continued, “they really think they’re on to something. It may be nothing we can use. But right now, we’re faced with pressure from a country that can crush us if they decide they can get

away with it, and no way to put up even a token resistance.”

“Well, yes, but...” Calvin looked helplessly at the chip in his hand.

“Dr. Rios,” Julian said. “You weren’t asked to be Verdant’s Science Advisor because you’re so photogenic. You are a well-rounded scientific expert. I happen to think that your knowledge and insight is an excellent complement to Dr. Silver’s, who is very practical, but maybe not as imaginative as yourself. Between the two of you, I’m betting that if there’s anything useful in that data... you’ll find it. Or figure out for sure that it’s worthless. Either way, we’ll know.

“So,” Julian said, standing up, “go home, get some rest. And tomorrow, start examining that data. I am giving you access to all of Dr. Silver’s department.” Calvin stood up, still staring helplessly at the chip. “You two, figure it out.” Then Julian steered Calvin to the door, and on his way.

He stayed in his office long enough to compose some comments to accompany the report to the U.N., and sent those to the com station. That done, he stepped back out to CnC to see how things were going. He preferred to be seen in CnC, as opposed to sitting quietly in his office, feeling it made him seem more approachable to his staffers, the way he preferred it. He tried to cultivate the same thing in Reya, and she seemed to have taken to his leadership style comfortably. Aaron Hardy had not developed the same habit, however, choosing to spend more time in his office than in CnC.

This made it all the more surprising, when Julian left his office, to find Aaron still in CnC, talking to Kris Fawkes. Mind you, he reflected, it was more than obvious why any man would want to talk to her for as long as possible... she was certainly beautiful, and with a cultivated personality. He was sure she would be great company...

He suddenly felt, rather than saw, that Reya was just behind him. He half-turned her way, to see that she was examining a datapad, and gave him a half-glance herself. “Message to Geneva is away,” she said matter-of-factly. Julian nodded, and silently regarded the staffers at CnC as they tended to their duties. Reya tossed another casual glance at him, taking note of the specific direction he was not looking. “I will say, that Fawkes is a beautiful woman.”

Despite himself, Julian smiled: He knew where this was going. “Hm?” he said, blatantly feigning distraction. “Oh... oh, yes, Miss Fawkes. Yes, she’s quite beautiful.”

“You seem to like what you see,” Reya commented casually.

Julian shrugged. “What’s not to like?”

They both noticed a moment when, as Aaron turned away to indicate something to Fawkes, she spared a considerate glance in their direction. At that distance, it was impossible to tell if she was paying particular attention to either of them, but something in her eye suggested she was inviting at least one of them over.

Reya could guess which. “She seems taken with you.”

“She seems taken with Aaron,” Julian pointed out.

“Julian—”

“No.”



Reya finally looked at him directly, and huffed in exasperation. “Julian, for God’s sake, what’sso wrong withthe idea of going after a girl?”

“What’s wrong?” Julian turned and looked at her directly. “Thirty years ago, I would have been a pushover. Twenty years ago, they would’ve had a good shot. Ten years ago, it would have been an uphill battle. Today... they can go bother someone else.”

Reya started to protest, but Julian chose that moment to move away, and she decided not to go after him. Julian’s attitude towards women never ceased to perplex her: At sixty-one, he was one of the most vital men that she had ever known; and yet, apparently since he’d become a widow going on twenty years ago now, he still actively shunned other women.

Reya, of course, had no trouble understanding loyalty—or mourning—in honor of a lost loved one, and she knew Julian had loved Mariel. But Julian had taken the concept to some extreme that she simply could not understand, to the point where he simply refused to even entertain the idea of allowing another woman into his life. It was not shyness, she knew: You didn’t become the Ceo of an orbital habitation satellite without having loads of confidence, self-command, intelligence, and an outgoing personality; and he was still handsome and healthy, altogether a great catch for any woman; but he sometimes acted as though he had developed a severe inferiority complex, that applied to nothing else in the world except *women* .

Whenever she dwelt on it, she was continually reminded of the evening when she, Julian, and a number of Verdant higher-ups had attended a dinner in honor of a retiring executive. There had been drinks, loosening everyone up, and there had been women... lots of women... many of whom were attached to the arms of men twice their age, and others looking like they were still trying to get set up with theirs. Reya had noticed one very attractive woman who spent some time trying to catch Julian’s eye from afar. Julian had been polite, but standoffish, making no moves that might be interpreted as an invitation by the woman.

Reya had eventually picked up on this, and in a low voice, engaged her boss. “Look at that girl over there,” she'dsaid half-lightly, a leer in her eye that liquor helped to foster. “I bet you’d have a great time in the dark with her.”

Julianhadlooked at his lieutenant with a knowing smile on his face. *He had noticed her!*She'dthought. Equally lightly, he'dcommented, “Assuming she’d want to have sex with me?”

“Sure.”

Without a change in expression, Julian stated, “She wouldn’t.” And just like that,had turned back to his drink, and a moment later, engaged another conversation on his opposite side.

Even now, Julian was already across the room and deep in conversation with a staffer at one of the weather stations... no doubt checking up on the prospects for*El Capitan* ... just like at the dinner, ducking the subject. Reya spared him a lastuncomprehending glance, before turning her attention back to Kris Fawkes and Aaron Hardy, who seemed to have hit it off together. She hadn't seen whether Fawkes had noted Julian's reaction, but Reya would have bet a week's salary that she had. And she now seemed fully focused on Aaron.

Unlike Julian, Aaron pursued women, albeit a bit clumsily... he was certainly better with numbers than he was with people. But as far as Reya knew, he didn't have much luck with women. His looks were a bit

plain, his demeanor lacked polish, his physique was just on the soft side, and he was wishy-washy as hell when approaching a prospective conquest. *Comedy relief*. And incidentally, not very funny. He was just—as another woman might have put it—*not quite* what they were looking for.

So seeing Aaron in earnest conversation with Fawkes told Reya a lot more about the woman's *modus operandi* than about the man's ability to charm the opposite sex. She obviously knew how to push Aaron's buttons. Specifically, the big red one over his heart with the bright LED letters that read: "*Please take me home.*"

And at that same moment, almost as if the two women were somehow on the same mental frequency, Fawkes shot another glance at Reya. Their eyes locked, and in that instant they both knew they understood each other perfectly. And the look Fawkes gave Reya suggested that whatever she was doing, was going exactly according to plan.

Reya smiled back. She knew that they had nothing to hide from the U. S.... the facts were the facts. There was nothing Aaron might give away or compromise, and nothing he might endanger... save, maybe, himself. So, at worst (Reya had heard her father say this once, years ago, and the phrase still tickled her) Kris Fawkes had managed to hook onto a caboose with no engine attached.

*Well*, she mused, still smiling openly at Fawkes, *at least one of these guys'll get a chance to jump that...*

## 6: Tensions

"I say again, *El Capitan*, slow to one quarter!" Hunter Reilly barked into his com. "Cut your mains to allow inspection!"

The *El Capitan* seemed to hover on its end in space, as it rose into orbit to rendezvous with Verdant. A thin ribbon, not much more than a thread, seemed to trail behind it, looking like an impossibly-stretched rubber band poised to snap the freighter back out of orbit. Hunter and Goldie in Wasps three and four were in position below and behind it, one on port, one on starboard, on a parallel course.

"And I say again," came the voice over Hunter's com, "*not until we have established stable orbit. Our on-boards have evaluated the leak, and it poses no threat to our ignition system.*"

"That is *not* your call, Captain, and you *know* it," Hunter stated. "Regulations state that all flight-damaged ships must be visually inspected by satellite security before docking."

"*We know that!*" the voice snapped. "*But we're still twenty minutes out, and we just need three more minutes to hit our orbital window. If we cut engines now, we'll de-orbit, and won't have enough fuel to recover or land safely.*"

"Not my problem!" Hunter angled his ship so that the nose pointed threateningly towards the *El Capitan*. "Follow regulations, or be considered a hostile!"

"Wasp three," Goldie barked into the com, "you're over-reacting."

"I'm following regulations," Hunter replied testily. "We are in an emergency situation—"

*“So will we be, if we de-orbit with low fuel!”* the *El Capitan* added.

“Follow regulations—”

“Wasp three, stand down—”

“—or be considered—”

*“Dammit!”* Goldie heeled Waspfour over and kicked her thrusters, barreling the squat fighter directly at Wasp three. She heard Hunter’s surprised oath, before he yanked his fighter about and dodged Wasp four, the two of them angling sharply away from the freighter. Before Hunter could say anything more, Goldie keyed her com to Verdant’s frequency. “CnC, Waspfour : I am declaring a FOE, repeat, Frank-Oscar-Edward, request immediate docking assignment for both Wasps!”

“Goldie, are you nuts?” Hunter barked out, but Verdant was already responding.

*“Waspfour, CnC: Frank-Oscar-Edward received, you are cleared for immediate docking in slips 128 and 130, confirm.”*

“Confirmed,” Goldie replied. “CnC, send a team out to inspect the freighter *El Capitan*, they suffered some engine damage on orbital insertion. Coordinate inspection maneuver with Captain Toliver.”

*“Roger that. Bring ‘em in.”*

“Dammit, Goldie, you trying to get us court-martialed?” Hunter snapped.

“Shut up, Hunter,” Goldie told him, “before we get worse than that!”

~

“Miz Luis,” a staffer spoke up. Reya came over to his workstation to see what was going on. “A strange exchange with the Wasps escorting that freighter. Then the pilot of Wasp four declared a FOE.”

“What?” Reya blinked. “What the hell kind of fighter operation emergency could they have?”

“I don’t know, there’s nothing on telemetry. But we have the exchange before the FOE was declared.”

“Let’s hear it.” As the staffer triggered the playback, Reya picked up the workstation’s auxiliary earpiece and listened in. Her brows knitted slightly. Then she took the earpiece out. “If anyone’s looking for me,” she said loud enough for most of the staffers on that side of CnC to hear, “I’ll be in the hangar bays.”

~

The engineer underneath the Wasp rolled out on his backboard, until he could see Goldie standing beside him. Hunter was further away, but he also turned when the engineer rolled out. As he wiped his hands on a rag, he looked at Goldie and said, “The thruster bearings look fine.”

Hunter immediately threw out a hand and pointed threateningly at Goldie. “Don’t do it!”

Goldie ignored him, and said: "Check the linkages, then."

The engineer looked at her cool expression and said, "Yes, Ma'am," as Hunter roared in anger. Goldie knew that, as long as the ship was being checked after a FOE declaration, they were both required to stay there until it was done.

Hunter took a step away from the Wasp, then pivoted on the other foot, took another step, and pivoted again, essentially turning on one leg and staying in one spot. "I swear, Goldie, this is going on your record, not mine—"

"You'd better think about what goes on whose records," Goldie said with an unnerving calm that matched his anger. "And you'd better figure out what you're gonna tell CnC when Toliver reports in..." She paused, when she noticed who was approaching from the freighter bays. "Actually, maybe you'd better figure out what you're gonna say to Toliver first."

Hunter, catching her drift, turned to see Captain Martin Toliver bearing quickly down upon him. Toliver was maybe a hair smaller than Hunter, but judging by the look in his eye, Goldie didn't think that would be an impediment. Hunter sized him up, too, and altered his stance as the freighter captain approached.

"That's right," Toliver bellowed across the bay, not altering his stride. "You know exactly what I'm gonna do!"

"What you *think* you're gonna do," Hunter shot back.

"Try and stop me," Toliver growled.

When the two of them were within reach, Toliver threw a roundhouse right that Hunter easily blocked... leaving him wide open to a left elbow that shot up from the inside and connected to his jaw. Hunter's head snapped back, and he fell backwards to the deck, landing heavily on his ass.

"Oh, *nice block*, Lieutenant," Goldie said sarcastically, all the same stepping between Hunter and Toliver. "Okay, neutral corner," she said to Toliver, as she knelt in front of her wingman. She examined his face, the trickle of blood that was running down from his lip, and confirmed that he was only stunned.

"*Whoa, whoa, hold on!*"

Goldie turned her head and saw Eo Luis rushing into the bay. She whispered to Hunter, "Okay, now think about what you're gonna tell Luis. If I were you, I'd try to do it standing up."

Reya skidded as she came to a stop in front of the freighter captain and her officers. "What the hell do you idiots think this is, kindergarten? Back off, Toliver, before I revoke your license!" As she shouted at Toliver, Goldie helped Hunter to his feet, and the first thing Hunter saw as his eyes refocused, still doubled over, was Reya's chest pointed at him.

"Hunter!" Reya snapped, and Hunter did his best to lever himself to attention, almost striking Reya's chin as he did so. Reya leaned back to avoid the collision, then leaned back into him. Hunter was more than a head taller than the relatively petite Eo, but that didn't prevent Reya from pushing up against him as if she was going to bowl him over by sheer force of will. "You'd better have a damned good explanation for performing like a total asshole on duty!"

"I was following regulations!" Hunter had the presence of mind to say first, allowing Goldie's hand on his

arm to keep him upright. “In the event of discovered damage that may pose a hazard to the satellite, inbound ships must submit to inspection—”

“Excuse me, Lieutenant,” Reya cut him off icily, “but did this man hit you so hard that you *really* think you’re speaking to someone who does not know the regulations on this satellite?” Hunter closed his mouth, and thought of what his next words would be. “You heard the Captain’s explanation, and you knew there was no reason not to allow him the extra three minutes to make his orbital window.”

“With all due respect, I *did not* know that,” Hunter protested. “It was my estimation that the problem was more severe than the Captain believed, and according to regulations, that is my call.”

“The man’s a power-hungry moron.” Captain Toliver, stepped forward to add something, but Reya quickly turned on him.

“Step back, Captain! I saw that punch you threw, and I could have you up on charges for it! In fact, up until now I was prepared to put all the blame on this pilot for following regulations inflexibly. That’s right,” she said before Toliver could interrupt, “because he *was* acting according to regulations.”

She turned and eyed Hunter. “Even if he did so stupidly.” Hunter, wisely, did not reply.

She turned back to Toliver. “So, at this point, I’m going to call it even, and tell you both that if I catch either of you at this behavior again, I’ll throw you both in the brig! Captain: I believe you have some damage to see to.”

Toliver stood a moment longer, glaring at Hunter, then Reya, before turning and walking slowly back to his ship.

Once he was out of earshot, Reya turned back to Hunter and Goldie. In a somewhat softer voice, she said, “Hunter, what’s up your ass? Following orders is one thing, but that was just being obstinate and stupid! Were you going to shoot him if he kept on? Huh?”

“He would have backed down,” Hunter stated.

“Yes, that was the logical thing to do,” Reya said. “So he could go into freefall and make an uncontrolled re-entry, *onno fuel* , into an atmosphere choked with volcanic ash.”

“*My judgment* was that his fuel was about to blow, at which point he and his crew would have been doing freefall *without his ship* .”

Reya glared at Hunter, but she knew she couldn’t challenge his statement short of using a lie detector on him. She also looked at Goldie, who returned her look with one that suggested, *it’s possible* .

At that moment, the engineer rolled out from underneath the Wasp, slowly enough that it was clear he wished he were somewhere else. After he regarded the three of them nervously, he said, “Linkages look fine, Lieutenant.”

Reya looked at Goldie, who turned calmly to the engineer and said, “Okay, knock off. Thanks for checking it.” The engineer mumbled a thank-you, scrambled up, and hurried away from the trio.

Reya watched him go, before looking back to Hunter and Goldie. Goldie returned her gaze calmly, while Hunter just concentrated on standing up. “Look guys,” Reya said, “we can’t afford to go off half-cocked

right now. We're all in a crisis situation, up here and down there, and we all have to cut each other some slack. Hunter, you know what the regulations are. You also know when it's *sokay to bend them* . Understand me?"

"Yes, Ma'am," Hunter replied firmly.

"You two are off for the rest of this shift," Reya said finally. "Report back to duty tomorrow, and don't let me hear anything like this again. Or you might be asking Toliver for a job. Dismissed."

Hunter and Goldie turned and headed out of the bays. Reya watched them go a moment, then turned to take a look at Toliver's ship. She figured she might as well see what Hunter had seen... maybe she would have made the same call. As she walked along, she was suddenly aware of a man who was falling in step with her.

"Fun way to start a morning, huh?"

Reya looked over at Captain Lemuel Carter, and wished she could return his easy smile, but she just wasn't feeling that pleasant. "Actually, Lem, this is about the last thing I need to be worried about right now."

"Mm." Lemuel nodded and continued on with her into the freighter bays. Lemuel was a passenger liner pilot, a regular visitor to Verdant on the regular Global Aerospace commercial run. His ship, the passenger liner *Lincoln*, was due to return to Earth in a few days... or, at least, *was* due to return, before Yellowstone blew. Now, the GA schedules were being re-evaluated, and it was anybody's guess how long he and his ship might remain on Verdant. Nonetheless, he was in full uniform, as was his custom even on non-flying days, looking characteristically dashing and radiating his usual charm and professionalism. His West Indian complexion actually matched the brown of his uniform, which, for most people, wouldn't look complementary... but with his tall and broad-shouldered physique, Lemuel made it work.

"My crew has been monitoring ground traffic for the past few days," Lemuel said as they walked. "Things are getting very tense down there. Atmo sucks for flying, with all that ash. People are losing money. Pilots are actually being pushed to fly in hazardous situations."

"I'm sure," Reya said. "But we have problems up here, and getting cut off from our supply lines isn't helping things."

"Of course not," Lemuel agreed. "Just don't forget, Earth's got its problems... Verdant's got its problems... but it's the transports, and your fighters, caught in the middle." Reya paused, and looked at Lemuel. "Go easy on 'em," he finished.

After a moment, Reya nodded. Then she inclined her head in the general direction of the passenger bays, and the *Lincoln* . "Your boss giving you any grief about being stuck up here?"

"Not yet," Lemuel replied. "Of course, at the moment none of my scheduled passengers are all that thrilled about leaving..."

"There is that," Reya smiled ruefully. "Well, as far as I'm concerned, the longer you're stuck here, the better. Gives the whole place a classier atmosphere."

"My pleasure," Lemuel smiled. "Oh, if you get the chance, stop by the *Lincoln* sometime. Got some new

gear I want you to see.”

“When I get the chance,” Reya agreed, resuming her walk. “See you.” Lemuel stood and watched her go, until she was past the emergency bulkhead and out of sight, before turning and heading for his own ship.

Reya approached the drydock slip that had been prepared for the *El Capitan*, essentially a giant airlock bay that allowed a ship to enter the satellite’s pressurized atmosphere. *El Capitan* was a medium-sized Clydesdale-class freighter, significantly smaller than some of the bulk cargo ships of the various Cetacean-classes that were forced to dock outside, or to assume parking orbits and have their cargo ferried aboard... but as it was, it barely fit into the largest bays they had. It was mostly a collection of reinforced containers, surrounded by a barely-aerodynamic fuselage, and on two sets of short wing-struts, four heavy-duty engine pods mounted on independently-directed armatures, each of which looked powerful enough to move medium-sized asteroids.

It was the dockmaster’s job to review the situation and okay the airlock entry, so she assumed whatever repairs they needed to do would hopefully be eased by the ability to work in a shirtsleeve environment. It also suggested the damage was not as critical as Hunter thought (or *said* he thought) it was... which was good for the freighter, if not for Hunter’s rep.

At that moment, Reya could see a few engineers examining various parts of the upper bulkheads and gesturing around, though she suspected the engines had not yet cooled enough to get near. Captain Toliver was also there, standing by the main hatch where he could see the cargo bays being unloaded, and using a headset com to confer with the engineers on his freighter’s roof. Already crews were coming out of the bay, driving the loaders that carried the freighter’s cargo. When Reya was close enough to avoid yelling, she asked, “How does it look?”

Captain Toliver turned at the sound of her voice, and once he recognized her, he shrugged. “Not that bad. Could’ve been worse.”

“Could it have looked worse to my pilots?” she asked casually.

Toliver regarded her, then glanced at the ship, and considered. He finally said, “I don’t know. Maybe.”

Reya nodded lightly, avoiding the opportunity to adopt a condescending air. Now was not the time. “Take much to fix it?”

“No,” Toliver replied quickly. “It’s mostly superficial. Flying through that ash, even light as it was, did most of this. We’ll need some serious refitting when we get home.”

“Yeah, sounds that way,” Reya agreed. “Listen, on behalf of Verdant, I want to apologize for the tense moments back there. I know you guys have it rough enough, flying through volcanoes and all, without having to get into fights with my flyers.”

“Yeah. Well,” Toliver conceded, “he was doing his job.” A moment later, he added, “It was a weird situation.” He looked at Reya. “I’m sorry I hit your pilot.”

“Thanks,” Reya said. “I’ll be sure to tell him—”

“Reya!”

Reya returned to the freighter's hatch, and grinned. "Anise! I wondered if you were in there!"

The young woman who stood at the gangway waved to Reya. She wore a pilot's jumpsuit, which complemented her slim figure nicely, and had a travel bag slung over her shoulder. More than a few of the cargo handlers paused to check her out as she stood there, framed in the hatchway like a picture. She ascended the gangway, her ponytailed hair swinging merrily with each step, came over to Reya and Toliver, and gave Reya a hug. "How are you, Reya! How's Daddy? Are you taking care of him?"

"Go on up to CnC, and see for yourself," Reya replied. "I'm sure he's wondering by now why you aren't up there already."

"Hey, it takes time to shut down a cockpit," Anise told her lightly. She looked at Toliver. "Please go easy on my Captain, he's had a rough day."

"Not as rough as we would've had if you'd crashed this thing," Reya told her. "Now, go on and say 'hi' to your father. I'll see you later." Anise waved and started off, leaving Reya to return to Toliver. "C'mon: I want to get a better look at your ash damage."

As the pilot headed in the direction of the lifts that would take her to CnC, she was recognized and greeted by more and more people along the way. "Hey, Anise!" "Nice to see you!" "Hey, Annie, you here long? Call me!" Anise waved or spoke to them all, and saw many more smiles directed at her. Anise was a regular visitor to Verdant, and as she happened to be the daughter of one of Verdant's senior staff, she was well-known and well-liked throughout the satellite... almost a celebrity. In many ways, she felt Verdant was her second home, much like a favorite vacation spot or port, and could easily imagine making it her first home someday.

The security guards that were stationed at the entrance to CnC also smiled and nodded as she approached, though they didn't say anything. "Hi, fellas," she greeted them as she passed, and one of them triggered the sliding doors for her.

She entered CnC, and saw the usual activity: People at their workstations, doing their jobs diligently, some of them going to and fro. Many of them noticed her entrance, and smiled or waved to her. Anise waved back, and craned her neck about to find her father. She finally located him, bent over one of the weather workstations, and started his way. Her father finally looked up, and smiled widely as she approached.

"Daddy!" Anise wrapped her arms around Julian Lenz's neck, and he gave her a bear-hug.

## 7: Maneuvers

"Oh, Daddy, it was the worst," Anise Lenz said after she put her wineglass down. "I almost don't want to bring that ship back. It's like flying through gravel... it scours the hull... and the noise! The counter-sonics couldn't handle it all! I thought the ship was going to rattle apart at any minute."

Julian regarded her across the table. They were in his suites, and he'd fixed a simple but well-prepared dinner for her. He rarely cooked elaborately for himself, but when his daughter was on-board, he usually went all-out and whipped up the kind of meals he used to fix when they were still living in North Carolina.



Today's dinner was not as involved as others in the past, however, due to the pressures of the day forcing him to leave CnC rather late in the evening. "The GAA," he said between bites of salad, "said the air was clear in your window."

"They didn't fly through it," Anise said. "They should have, instead of just taking readings. It's the ash... it's too hard to really measure with ground-based fuss sensors, you need to get up there to really know what it is. I sent a report back before I left the *El Cap*, telling them to reconsider their flight clearances."

"Well, thank goodness you got here in one piece," Julian said. "I'm still surprised you came at all."

"Gordon told us to go," Anise told him. Walter Gordon was the Ceo of RPI, the owners of Lusterne Freight. "He wouldn't stop moaning about how many billions he was losing by the hour because of the groundings. When the GAA reported the window, he had every loaded freighter okayed for launch. *El Cap* and *Rushmore* were the only two that were ready to go in time to hit the window."

"The *Rushmore* made it to Fertile all right, I heard," Julian commented. "But the window has closed back up. Neither of you could manage anything but a southern hemisphere return at this point."

"That'll use up more fuel than Gordon will want us to burn to get home," Anise said. "Especially when he finds out how much that grit wore away at the hull. He'll tell us to stay put for awhile, hopefully until the northern hemisphere clears." She took a mouthful of food, and shrugged. "So, I might be here a few days! Enough time to put on a few pounds of this cooking!"

"It wouldn't kill you," Julian smiled. "Can't you get that boyfriend of yours to take you out every now and then?"

"Sergei's too picky," Anise shrugged. "It's easier to stay home. And what about you? Still no one cooking for you?"

Julian returned her shrug. "I'm too picky."

"Yes," she agreed, "you are."

Anise refrained from pestering her father further about his lack of interest in dating or new relationships. Whenever they talked about it, the subject of Mariel came up. It was hard for either of them to talk about his wife, her mother, who had drowned in the Grand Banks floods in the effort to get Anise, then a pre-teen, to safety. She always felt a bit sad that Reya Luis didn't show any interest in her father, she liked Reya a lot... but then, there was a sizeable age difference there, and to be frank, Anise wasn't so sure her father could handle Reya, the "petite powderkeg." So she let the matter drop right there, still high on her list of things to address, but tabled once again, and moved on to other subjects.

They saw enough of each other on a regular basis, Anise being the regular pilot of the *El Capitan*, that they had little need for catch-up conversation. Instead, they talked about the havoc being created by the caldera on the ground. It was not surprising, of course, that the engineers' projections on how long this equipment, or that service, would last under the onslaught of the ash spread, was proving to be way off in either direction. Some equipment that had been expected to be frozen up by now was still chugging along, albeit a bit roughly, under the ash load... while other systems expected to last for months to years were already shutting down. Without reliable operational projections for—well, *anything*—society was grinding to a halt in North America, and scientists were beginning to use words like "cataclysmic" and "extinction" more and more often. Fully seventy-five percent of the U.S. was now under the ash cloud, and it was beginning to reach across the Atlantic already. Rationing was in effect, since transportation of

goods was almost at a standstill. Americans were being warned to hunker down for what might be months of hardship, and no one was willing to predict an end to it all.

As he listened, Julian massaged his temples. It was one thing to hear it from impartial news services. But to hear it from his own daughter, firsthand, was heart-rending.

“And to top it all off,” Anise said, “President Lambert evacuated up here, and left Carruthers running the country. And she’s useless! ‘Cocktail Barbie’ just hides in the High House, gives an occasional address for everyone to stay calm, then ducks into a closet while other departments try to figure out how to get the country through this crisis without real guidance. I could skin Lambert alive, just for that!”

“He’s not exactly making himself welcome up here, either,” Julian told her. “He’s pushing us for higher immigration quotas again.”

“I can’t say I’m surprised,” Anise nodded. “I’m sure he’d love to move all of his cronies up here and set up a little corner of America around his little compound, over there.”

“And what are Americans saying about the satellites?”

Anise looked at her father, and took a sip of wine before responding. “A lot of people want to get up here, Daddy. They’re panicking... and with good reason. They think maybe it’s safe up here in the satellites.”

“I wish it was,” Julian said. “I wish we could take them all up here. But it’s just not workable. Our resources and capacities are very finite. They need to understand that.”

“That’s a rational argument,” Anise said. “But this isn’t a rational time. They think the satellites are going to cut themselves off from Earth, and leave them to stew.”

Julian shook his head. “We need Earth as much as they need us. Where would we be without Earth?”

~

“I gotta get off this rock.”

The man was alone in his office, though he spoke aloud as if there was someone to hear. But no one was around, save a few guards on the lower levels of RPI. They certainly couldn’t hear Walter Gordon, on the penthouse level. In fact, most of them probably didn’t know he was still in the building.

But he was there, in his office, all alone. He had been up there for days, since he’d sent most of the rest of his employees home by government order, and only a skeleton force remained at the offices. The picture window behind his desk was obscured by closed blinds and drawn drapes, and the single small desk lamp cast most of the room in shadow. Walter Gordon paced about in the dark, occasionally talking to himself, fretting over the imminent disaster that was his company.

The Yellowstone eruption, and subsequent grounding of his freight lines, meant he was moving virtually no goods, making virtually no money, and watching his daily operating costs eat him alive. “Two billion. Today alone. Two billion.” It had probably been no help at all to launch even the two freighters that had made it through the brief window the GAA alerted them about. Between the efforts to rush two ships off the ground, and the reports of the apparent damage they had suffered flying through skies that were *still full of ash*, no matter what the morons at the GAA said... hell, he probably *lost* money on the flights.

“They’ll need refits... God,*not refits* ...”

Walter ran a hand through his hair. He had been just four years away from selling the company and retiring to Verdant, his biggest and best customer. Years of setting up accounts, setting up employees and an office presence in Verdant... not to mention people to help smooth his entry and buy him a hard-to-get visa... now, thanks to a damned volcano, it was all unraveling before his eyes.

His roof gave out a soft groan. Security told him that there was a good eight inches of rock on the roof by now. He would have to leave the building in another day at this rate, before it collapsed under the weight.

“Taking me with it...”

No, he needed to do more than leave the building. He needed to salvage what was left of his fortune, and get to one of the satellites. *Now*. He couldn’t wait four years... or even one. His mandatory retirement began *now*.

But he still didn’t have the visa. The process generally took years, even when you had the financial resources to beat the U.N. lotteries and bribe your way in. And there was bound to be renewed pressure now, with everything shutting down and more people clamoring to go...

But wait. President Lambert had gone to Verdant. And as it so happened, one of Gordon’s employees had been cultivating a relationship with Lambert for years, whenever he visited Verdant for a few days. She was the unofficial member of his lobbying staff, paid to do whatever it took to get on the good side of those in charge. Lambert was stuck there now, so...

“*She must* have access to him.”

Walter reached for the com, and found the number he was looking for after a moment fumbling in the dark. A few moments later, his desk screen lit up, and he looked down at the face that stepped in front of the camera.

“Hello, Shay. Tell me you’re logging some quality time with Lambert.”

*“I was the first one they called, Walter.”* Shay Vaughn smiled up at Walter, and brushed a lock of her hair away from her eyes.

“Good. Good,” Walter said. “What are they doing up there?”

*“They’re not happy,”* Shay told him. *“They’re trying to force immigration quota increases, but Lenz isn’t having any of it, from what I can tell. Lambert’s off discussing it again with Thompson and the boys, right now.”*

“Shit. That’s not good. I need that visa.”

*“Maybe not,”* Shay said. *“I’ve been talking to Lambert about using the trade companies to put pressure on Verdant. I’ve dropped your name. If you can get a flight up here, you can work with President Lambert to secure a place for more immigrants. Like, for instance, yourself.”*

Walter’s eyes widened and seemed to glow with determination. “Shay, you’re *amazing*. Do whatever

you have to do, whoever you have to do it to, to clear me a temporary visitation visa. Get me up there, and I'll buy you your own compound, y'hear?"

Shay smiled. *"Just make sure they don't bootmeoff."*

~

"... Well, long story short, the freighter landed okay, and the damage wasn't that serious. But once it was parked, the Captain found the Wasp pilot, and the two of them had blows right there." Aaron Hardy took a sip of his drink, as Kris Fawkes looked on with a shocked expression. "Reya—Eo Luis—managed to show up then, probably keeping them from fighting some more. But she told me later that another of our regular visitors told her that tensions are getting worse among most of the Earth-to-satellite crews."

"Oh, Aaron," Kris said with appropriate concern. As she was sure most people would realize, she was a "diplomat" in title only, and not considered part of the official U.S. diplomatic corps... in fact, she was a Verdant resident, hired specifically to take advantage of her valuable talents. But to her credit, those included much more than simply being pretty. Kris had an innate ability, honed further by years of training, to be able to read a person through their body language, their vocal tones, their speech cadence... the kind of talents that, once upon a time, made fortune-tellers, witch doctors and mentalists a healthy living. Her ability to ferret out information using these talents was nothing short of incredible, and she had had years of regular assignments in the industrial sector before being put on retainer by the U.S. government to work on Verdant. Although this was the first time she had ever been sent into CnC, she had expected her abilities would be up to the task of finding an insider and working her way into their confidence.

On the other hand, Aaron had turned out to be easy to maneuver, she had discovered, and getting him to ask her to dinner had required not much more than a smile. He was the sort that fancied himself a good man for any woman, and believed his lack of female contact was mostly due to missed opportunities and bad breaks. In fact, she was already sure that he had little going for him, other than the notoriety of his position, and unless he turned out to be a complete surprise in bed, Kris just hoped any time spent with him would turn out to be worth the information she got from him in the long run. "It must make your job so much more untenable."

"Well, animosity from the flight deck is never good," Aaron admitted. "But I'm more concerned with the shipments that don't get to Verdant, than I am with the crews that manage to get here. Fortunately, that freighter was carrying vital migraponic chemicals for our farms, some important gear for the science section, and maintenance parts for the trams that have been backordered for months. And it'll carry back an allotment of fullerene carbons that'll pay a lot of bills up here."

"Well, that's good, at least," Kris agreed, taking a sip of her wine.

"Yeah... anything to give us leverage against your boss," Aaron smiled. "I mean, I know he wants the quotas changed, but if we can at least show him how much we can do for those who are still down there, maybe he'll lighten up on us."

"You know," Kris said, lowering her voice to keep it at their small table, "it seems so hard to believe on the surface that Verdant can't support more people. I mean, how difficult would it be to bring even a few thousand more people here?"

Aaron shrugged. "I know it seems that way... but the numbers don't lie." He idly waved a fork in Kris'

direction. “Y’know, it’s so hard for people to look around this satellite, any satellite, and really get an impression of how finite it is. I mean... it’s got *space* ! Look at the volume, all that empty space! But in reality, this satellite’s available space, compared to Earth’s, is the barest fraction... less than a millionth of the land volume of Earth, and there’s more air over Everest than there is from here to the far side of this floor.

“On Earth,” he continued, “you have the land, the forests, the oceans, the micro-organisms, and all that atmosphere, working together to provide sustenance to people on the ground. It’s all interconnected, self-supporting and self-regulating. On the satellites, we have to do all of that manually. We’ve never managed to create an environment that is self-sustaining, at *any* scale. I don’t think we ever will. So, for every single person we bring up, we have to carefully balance all those manually-handled resources, to make sure we don’t starve, or suffocate, or freeze to death. And still, we have to bring up more from Earth, to make up for the areas where our expertise is still lacking. It’s very hard.”

“Well,” Kris asked, “don’t you think we’ll get it figured out sooner or later? Maybe this crisis will be what the scientists need to work all that out.”

“I’m sure we’ll continue to improve things,” Aaron nodded. “But there’s only so much we can do.”

He paused, and something about the tone of his last sentence caught Kris’ attention. It suggested he was expecting something to change... possibly soon. But that he did not want to talk about it. Kris suspected she had found her angle of attack, the crack in the wall that she needed to start picking at. She wanted to start picking at it soon. And there was only one thing for that.

She looked down at the table significantly, at their empty plates and mostly-dry glasses. Aaron noticed this, and glanced at his watch. “Oh, yes... it is late. I guess we should get out of these guys’ hair.”

As Aaron pulled his credit card from his pocket and waved it at the service interface, Kris said, “I have *soenjoyed* the time I’ve spent with you, Aaron. I couldn’t have *asked* for a better escort. Thank you so much.”

Aaron focused carefully on her words, as she’d hoped he would. He smiled tentatively, and after a pause, said, “Well... there’s no reason it has to end just yet... does it?”

Kris smiled, as much to herself as to Aaron. “No. It doesn’t.”

The service interface *pinged* with its acceptance of Aaron’s payment.

~

“Ah, *Merde* , woman, you could do that to me all night long.”

Shay regarded Lambert with an amused expression. “Forget it. I wouldn’t want to be arrested for assassinating a sitting President.”

“I may take that chance,” he said, levering himself up on an elbow until he hovered almost over her on the bed. “Besides, I wasn’t sitting at the time.” He let an idle hand trace the contours of her breasts, and she responded by using a hand on his neck to draw him down to her, and kissing him warmly.

When Lambert pulled back, Shay gazed at him and smiled contentedly. “I wish you never had to go back to Denver.”

“I know what you mean,” Lambert replied, and the double-meaning was clear. “But when my tenure as President is over... which may conceivably end sooner than I’d intended... maybe I could wrangle a diplomatic posting here.”

Shay kissed him again. It was true, she was being paid to do this for her boss, Walter Gordon... but truth to tell, she would have jumped at the chance to spend any time with Gaston Lambert. Besides being the leader of one of the most powerful countries in the world, he was intelligent, handsome, charming, French, and *great in bed*. Being with him wasn’t a duty... it was *a pleasure*. And she was sure he could tell the difference between the average power-groupie intern’s blunt attentions, and her sincere attraction to the man.

In fact, Lambert could tell the difference. There was a reason, after all, that he made sure Shay had access to the Compound whenever he was on Verdant. And in fact, he also thought about their future. He had naturally been presented with her dossier the day after they’d first met: Given name Siobhan St. Croix, American of African-English descent; officially changed her name at 21; used a generous inheritance to pay for a modicum of college, a great deal of body sculpting, and a bit of plastic surgery. The result was a body that men liked to play with... enthusiastically... and at times, she had publicly sported the marks to prove it. She had bounced around what was left of Europe for six years, and had apparently become learned in quite a few areas of expertise, many of which were not polite to discuss in mixed company. Then she had returned to the U.S., worked as an intern for a year, then a successful lobbyist for five years, before being hired by RPI to represent their interests on Verdant. She would make a fine trophy wife, if he ever decided to settle down and pick one of the many prospects at his disposal. And if he never left Verdant again, she would be at the top of his list.

“Thinking about staying here?” Shay asked. “I can see it in your eyes,” she added to his unspoken question.

“Yes,” Lambert admitted. “But in what capacity depends on what I can manage in the next few days.”

Shay nodded. “I mentioned getting help from the freight companies. My boss, Walter Gordon, would love to come up and help you along with Lenz. RPI is one of Verdant’s largest freight suppliers. But he needs a temporary visa to be able to visit. If your people can arrange that with Verdant, you’d have an influential ally in the effort to get the immigration quotas eased.”

Lambert smiled down knowingly at her. “And how long have you been waiting to do that... *that thing* you did, in order to put me in the right mood to spring that request on me?”

“Gaston,” she purred, “there aren’t enough days in the *month* left for me to show you all the things I can do to you. But if you say ‘yes’, I’ll be glad to show you another one *tonight*.”

“Go ahead,” Lambert said. “Twist my arm.”

“We’ll save that one for tomorrow.”

## 8: Research

# 08Aug2229

Calvin wished fervently that a good night's sleep would have helped him with his new assignment. Unfortunately, it hadn't: He'd revisited Ceo Lenz's force field data from Tranquil, and it looked as outlandish now as it had when he was half-asleep.

Still, he had the feeling that they had been on to something, though whether it corresponded to a force field, he was not sure. He also knew he was not the expert on such things. Although he had a good general scientific background, his specific expertise was mathematics. He'd given the material a cursory look from that standpoint, trying to see how it could work simply by the numbers. But for him, the numbers just didn't add up. Still... as a good researcher, he knew the value of having someone else look over your work for something you might have missed. Lenz had given him full access to Dr. Silver's staff, and as it so happened, he knew exactly the person who had similar expertise in his field. She would be the perfect person to start with.

It took Calvin a bit of time to track down her location; she'd moved from the last lab he'd known of, and he wasn't familiar with the layout of the section where her workstation had been moved. He was on Floor 2, just one below the main office floors, with a correspondingly flatter curve to the floor than on Floor 1. Spending time on the satellites meant that you had to get used to walking on the curved floors that filled every space, as well as the differing curvatures of each floor. The human body was actually capable of adjusting for the change in orientation with little difficulty; unfortunately, the input from the eyes tended to contradict input from the middle ear and feedback from a person's feet, generally causing newcomers to walk around clumsily until their brains sorted out the conflicting signals. You could always tell someone who was new to a satellite by their staggering, almost drunken gait.

Finally Calvin found the appropriate room number, and knocked. He heard a voice call out, "Come in," and he slid the door open and went inside. The room was not large, filled primarily with a standard workstation outfitted with heavy-duty computing equipment, and a 3-D display column in the far corner. This was fairly typical of a mathematics or theoretical "lab," not so much a layout of tables and physical apparatus for doing hands-on experiments, as much as it was a place for heavy number-crunching and virtual modeling systems.

The workstation sat with its side to the door, and the occupant between the desk and the near wall. That occupant looked up and smiled in surprise. Calvin smiled back and said, "Hey, Val, how's it going?"

"Cal! Long time, no see!" Valeria Epstein got up out of her chair, and gave Calvin a fraternal hug. Calvin and Valeria had attended the same online courses for a time, and had finally met for the first time years after graduating. They had become good acquaintances since, especially when Calvin had discovered she had moved to Verdant a few years before he did.

Valeria took him by his shoulders and held him out at arm's length. "You look good as ever, Cal. Do you ever age?"

"I could ask you the same thing," Calvin said honestly. She was still as good-looking as she had been in school, and she hadn't let her figure go with the years, as so many of their colleagues had. He occasionally entertained the idea that, if he hadn't met Maria first, he could easily have married Val. "How's the work?"

"Oh, not bad," Valeria replied, releasing Calvin and pointing him at a chair in front of the desk. She sat on the edge of the desk, close to him. "We've been getting some interesting projects lately. Jacqueline,"

she continued, referring to Dr. Silver, “has some automated freight project that requires extensive coordination calculations.”

“For automated freight?” Calvin repeated. “What more needs to be done with ballistic freight delivery?”

“This is supposed to be a new system,” Val shook her head. “Not ballistic. So it requires extensive calculations to determine location, bearing and time for transit. I guess they’re planning on trying to automate carriers again, but that’s only a guess... I was just given the equations to work on. It’s complex stuff, and I only get in a few hours on it before I need a major break. Anyway, it’s a nice change from rewriting ecosystem algorithms. What about you... are you still mostly writing?”

“Mostly,” Calvin replied. “Not today, though. Today I’m acting in my capacity as Science Advisor.”

“Really?” Valeria grinned widely, clearly impressed. Valeria didn’t harbor any professional jealousy towards Calvin... many people with his credentials would have been less than comfortable with his media and government positions, but she only seemed happy to know someone who had done so well with his career. Not that her career was bad... working as one of Verdant’s theoretical mathematicians was nothing to sneeze at. “And what,” Valeria continued, “has you wearing your official hat today?”

“This,” Calvin said, holding up a chip. “Ceo Lenz wanted me to examine this material from Tranquil, and I need you to look over it to make sure I’m not missing something.”

He handed the chip to Valeria, who did not bother to examine it visually. As she turned to insert it into her workstation, she said, “I’m duly flattered. What is it?”

“Get ready,” Calvin said. Valeria turned back to look at him, and raised her eyebrows expectantly. “They’ve been researching defensive force fields.”

It took about a second before Valeria coughed out a single laugh, and a smile spread across her face. “Noyeah!”

“Oh, yeah!” Calvin nodded, gesturing at the chip. “The Tranquil Ceo passed this on to Lenz, in the hope that we could find something useful in it that their people couldn’t. Lenz gave it to me yesterday.”

Valeria continued to look at him, and slowly, her smile faded. “What’s this all about?”

“Lenz is worried that the U.S. is likely to try to force Verdant to accept refugees, and who knows what else,” Calvin told her. “Apparently Tranquil expects the same. So they started to work on this defensive system. Lenz wants us to try to find a way to make it work... just in case.”

“In case we need to repel American boarders? They’ve got to be kidding,” Valeria said.

“I know how it sounds, Val” Calvin shrugged. “But all the same, it makes sense to at least cover our bases. Now, I looked over the research this morning, and made some notes on their data. I wanted you to take a look, from the mathematical perspective, to see if you see anything I’ve missed.”

Valeria gave him a doubting look, but finally levered herself off the edge of the desk, and came around to her chair. “Well, I did say I needed the break...” Calvin stood, picked up his chair, and brought it around the desk so he could see around her shoulder. Valeria gave Calvin one last look, before finally focusing on the display screen.



It was fully fifteen minutes before Valeria spoke next. When she did, she asked about notations in the original research, and clarifications of the notes Calvin had added, and Calvin answered her in turn. She opened a fresh document, and started punching in numbers and equations. Every now and then, she would hit a button that lit up the display column, and a 3-D mathematical construct would form inside. As Calvin watched, it would rotate slowly inside the column, sometimes changing colors or twisting or deforming as if being manipulated by invisible hands. Then Valeria would abruptly clear the display, and go back to the notes on the chip. Throughout, they muttered between themselves, exchanging thoughts and suggesting alterations here or there.

They passed almost three hours like this, before Valeria finally pushed herself back from her workstation and rubbed her eyes tiredly. After a few moments, she looked tiredly at Calvin. "Sorry, Cal, but I can't find anything you've overlooked. These numbers just can't be made to work. That's all."

"That's what I wanted confirmation of," Calvin nodded, rubbing the back of his neck as he stretched next to her. "I can't ask for anything more, Val."

"I don't know, though." Val stopped rubbing her eyes and looked at her workstation. "There might actually be something in there. Something beyond the raw numbers... or maybe something their theoreticians missed." She looked down, as if hoping something would reveal itself, then shrugged. "I don't know. Just a feeling. Maybe there's a potential in there, somewhere. For something."

"I had the same feeling," Calvin admitted. "That there's something missing in their theory."

Valeria removed the chip, and her workstation went dark. "I need a serious break, now!" She stood up, reached for the ceiling and stretched, and Calvin just stood there and admired her shape as she did so... although he was sure he heard a mildly-alarming double-*crick* from her back. Then she handed the chip back to Calvin. "I'm sorry, I can't do any more with this. But I can suggest the one person in this satellite who is probably enough of an expert in all disciplines to see if there's anything to this stuff."

"And that would be?" Calvin asked, though he was sure who she was going to suggest.

"Who else?" Valeria smiled. "Doctor Silver."

~

Calvin approached Dr. Silver's office from an unexpected direction, due to his getting unexpectedly turned about upon leaving Valeria's office. When he finally found a lift, he discovered he had arrived in a different section of Floor 1 than he'd expected. So he used a wall-mounted guide to regain his bearings and find the doctor's office.

As he walked down the hallway, he barely noticed at first the two people who entered the hallway from an adjoining section ahead of him, walking ahead of him in the same direction. But a moment later, he thought he recognized one of the voices, and came to the belated realization that Dr. Silver was just ahead of him. Not wanting to shout in the middle of the floor, he simply increased his pace to catch up with her.

She was walking with a man a bit shorter than she was, wearing what Calvin could tell even from behind was an expensive suit. Calvin suspected it was Lin Sen Chiu, Dr. Silver's assistant, and when he heard his voice, his guess was confirmed. Chiu held a datapad, and the two of them seemed to be conversing over it. Calvin approached from behind, but they hadn't noticed him yet. Calvin, not wanting to interrupt them in an important discussion, tried to tune into their conversation in order to divine a convenient place

to interrupt them.

“...Fortunately, the final potential of the laser pulse was larger than the engineers had anticipated,” Chiu was saying. “But it is absolutely vital to lock down the placement with no more than a fiftieth of a degree of variance, or the pulse doesn’t reflect evenly.”

“I expected that,” Silver replied. “The question is, how much will the energy requirement scale up?”

“Fortunately, it’s not an exponential increase. If it was, I don’t think we’d have a prayer of powering it.”

“Well, now that the linkages for the gigacapacitors have finally arrived, we can—”

Dr. Silver’s voice trailed off, and it took Calvin a moment to realize that she had noticed someone following behind them. Chiu turned about sharply, realizing for the first time that someone was there. At once, Calvin saw a quick rotation of expressions on Chiu’s doughy face, from shock, to confusion, to fright, to anger. Finally his face turned into a mask, and he glared at Calvin stonily.

Dr. Silver also regarded Calvin, but her expression was more relaxed (and, Calvin suspected, better-controlled). She turned a bit, not losing her stride, and said, “Dr. Rios. What can we do for you?”

“Didn’t mean to interrupt,” Calvin said apologetically. “But I need to speak to you about a new project given to me by Ceo Lenz. It’s important.”

“If it’s from the Ceo, what else could it be?” Silver said neutrally, and turned to Chiu. “Get the boys started on the linkages, so we can start testing ASAP. We’ll discuss the rest of the project later.”

“Yes, ma’am,” Chiu said. With one last, withering look at Calvin, he veered off and headed back the way he had come.

Once Chiu had gone, Dr. Silver said: “So, what is the Ceo looking for now?”

“It would be best to discuss it in your office,” Calvin advised her. Dr. Silver relented easily, and they walked towards her office. Along the way, Calvin mused about the bit of conversation he’d overheard, and wondered if it might be related to the freight equations Val had said she was working on. However, Silver and Chiu’s reaction to his presence suggested to him that they may not want to talk about the subject publicly, so he remained silent as they continued along.

Once they reached her office, and she shut the door behind them, Calvin asked, “What was that project you and Chiu were discussing? And is it supposed to be a secret?”

“Not quite a secret,” Dr. Silver told him. “As in, if we told you, we’d have to kill you. But we are trying to keep it quiet, due to its rather radical nature. There are some who might think we’re wasting our money on pie-in-the-sky projects.”

“Such as?”

“It’s really just a new way of moving freight,” Dr. Silver explained. “But if we crack it, it will mean a quantum-level increase in efficiency.”

“With lasers and gigacapacitors? Sounds like a new power source. A freighter engine?”

“Hopefully something better than that,” Dr. Silver smiled. “But anyway, we’re here to discuss your new project.”

“Yes,” Calvin nodded. “Speaking of pie-in-the-sky.” He removed the chip from his pocket. “The Ceo of Tranquil passed this on to Lenz, because she thought our people might have better luck at getting it to work than her people apparently have.”

“What is it? A perpetual motion machine?” Dr. Silver reached out her hand for the chip.

As Calvin put the chip in her hand, he said, “A defensive force field.”

Dr. Silver froze in place, staring at the chip, then at Calvin. “No yeah.”

“Oh, yeah. *Brane Boystuff*, Lenz called it. But he and Tranquil’s Ceo—Volov, if I remember right—are concerned about an imminent attack from the ground, probably the United States, and they want to see if this idea has any merit.”

After another second’s regarding him, Dr. Silver finally started to move again. “Have you looked at it?” she asked, as she inserted it into her workstation.

“Yes,” Calvin said. “I also had one of your other people, Val Epstein, look at it with me.” Dr. Silver glanced at him, a look that suggested to Calvin that she probably knew they were old acquaintances. It may have also reflected the expectation that Val had mentioned her freight equation project to him, he reflected. He hoped that he hadn’t inadvertently gotten Val into trouble, though she hadn’t acted as if she was supposed to be keeping anything a secret. “As is, the raw numbers don’t seem to add up. But we both had the feeling that there might be something else there... something they’ve missed, or mis-stated, or something... that will actually make sense out of all that.”

“Mm.” Dr. Silver called up the specs and notes, and began examining them. Only a few seconds later, she said, “Yes, I see what you mean. Whoever started putting this together was obviously searching for a potential in field strength that is simply beyond feasibility.”

“Val and I had the impression that this might be intended to knock down ballistic missiles or other projectiles.”

Dr. Silver eyebrows arched. “Someone’s got an imagination, all right. But there are a number of problems with that idea. First of all, the power requirement needed to create and maintain a shaped field—especially one that might encompass a satellite—is massive. But that shaped field won’t be powerful enough by any means to destroy a missile, or even to deflect anything much larger than a bullet. You’re talking megawatts of power required, every second, to every square centimeter of a field, to create a charge that could potentially fry conventional electronics, or prematurely set off an explosive charge. Second, military hardware is hardened to prevent exactly that. And third... they must have known all that.”

Calvin nodded. “So. There must be a fourth... something. I think it had something to do with particle beam weapons.”

Dr. Silver shook her head. “PBWs all have the same drawbacks: They must be tightly focused to do any good; they are notoriously difficult to aim over an extended period of time, and they’re horrible at tracking a maneuvering target; and they rarely pump enough energy into their target to do any damage in time. They’ve had that problem, all the way back to the lasers they tried with the Star Wars program. I

mean, PBWs are fine for taking out orbital debris, but most of that is small, non-powered, and easily broken up or deflected into re-entry. Nothing like a missile. But again... they must have known this." She did not sound too confident that they would find anything useful.

Calvin sighed, and allowed his eyes to rove about the room. He remembered Lenz's words to him about Silver: "Very practical, but maybe not as imaginative as yourself." So far, Silver's practicality seemed to be without question. She was methodically knocking down the theories Calvin lined up for her. But Lenz thought there was something else. And he thought that Dr. Silver might be able to exploit it, her people might be able to explain it... but Calvin would find it. Something outside of the box... beyond the pale... above the threshold.

He stared at Dr. Silver's 3-D display column, and imagined it as Verdant, as if canted on one end, spinning in the hard vacuum. He thought of the data, and tried to fathom a system that would offer the satellite protection. How do you protect all that satellite?

Dr. Silver watched him carefully, clearly trying to divine his thoughts. Abruptly she said: "But the idea may not be without merit." After a moment, Calvin brought his eyes away from the column to look at her. "Yes. Maybe the secret is in the microcycle frequency of the field." She looked at Calvin again, and seemed to consider her suggestion. "Let's take another look at the frequencies they planned to use. Maybe the harmonics are designed to accomplish something..."

~

Shay was already in Lambert's suites when he arrived at the end of the day. Two roll-in trays filled with covered plates and a chilled bottle of wine sat next to the coffee table by the window. Shay was just pouring the wine when he walked in.

"Mmm... perfect timing," Lambert said as he sat down next to Shay on the sofa. "And the perfect look," he added, taking her in. Shay wore a thigh-skirted business suit with stockings and high heels, an almost extinct ensemble in any satellite, and for that matter in most places on Earth other than period parties. The jacket was draped across the back of the sofa, showing off the nearly sheer white wraparound blouse that hugged her curves alluringly.

"Thank you," Shay smiled sweetly as she handed him the glass. "And how went the rigors of state today?"

"Not as well as we would've liked," Lambert replied. "The U.N. has absorbed Verdant's counter-report on its sustainability, and they're siding with them. We tried a few last-minute gambits, but nothing could turn them. So we're on our own in negotiating with Verdant." Shay nodded in acknowledgement of his disappointment. "Oh, and I stopped by the diplomatic wing on my way up. They're not having any luck talking Verdant's people into allowing a temporary visa for Gordon."

"Walter will be disappointed," Shay said, her tone making clear how much that meant to her. "There must be some way of getting him here, even if temporarily."

"We tried getting a clearance for him as a government advisor, but they wouldn't budge. They know who he is, after all, and there's just no good reason for them to allow him up. I'm not sure if there's any more we can do, but I have a girl continuing to work on it."

Shay raised her glass to Lambert. "Well, then, here's to her eventual success." They touched glasses gently.

~

“He’s not having any success.”

Walter Gordon swore softly as he looked up at Shay through the workstation screen. *“How can he not get this done? He’s the President, for God’s sake!”*

“Verdant isn’t the U.S.,” Shay reminded him. “And today the U.N. backed up their claims of sustainability, so they have Geneva’s blessing to lock their doors and close the shutters if they want to. Lambert said he’s still working on it, but I don’t anticipate success anytime soon.”

After a pause, Gordon grated, *“Fine. I have one more ace up my sleeve, and I’m going to play it. Your boyfriend probably won’t like it, though.”*

Shay shrugged helplessly. “Walter: What else is new?”

## 9: Reports

### 09Aug2229

Enu Thompson was finishing his standard morning reports when the knock came at his office door. “Come in,” he said, without looking up. He knew who was expected, and everyone in the office knew not to approach him unannounced unless it has been arranged. He continued to make his last notations on his datapad as his visitor entered the room and sat in the chair before his desk.

When he was done, he finally looked up. “Talk to me.”

“Something funny is going on, but I’m not sure what,” Kris Fawkes stated calmly.

Thompson regarded Kris stonily. Given his disposition towards beautiful women, he found he had to restrain himself from ordering her into his bed that very night. . . she was just that beautiful. But he needed her for other services, and he had to trust that she was putting her talents to good use, while he enjoyed the talents of others. Even so, he sighed, and he tried his best to make it seem like the sigh was directed at her statement. “Go on.”

“Hardy doesn’t seem that concerned about the supplies crisis Verdant is in the middle of,” Kris explained. “He’s no dummy, so he clearly knows how serious it is. He seems to be planning something. . . or he thinks he knows of something going on.”

Thompson did not have to ask how far she had gone to get more information. He knew full well that she would have slept with Hardy to find out whatever she could. Obviously it hadn’t worked. “Didn’t you get anything useful out of him?”

Kris searched the ceiling for a moment, recalling everything that had been discussed during dinner... afterward, at his apartment... later, in his bed. "I don't think it's anything illegal... or even seriously underhanded. He's not acting as if he has some sort of data to blackmail someone with. But I don't know what that leaves us with."

Thompson idly scratched his temple. "It does seem unusual. Maybe they've made some deal with one of the freighter lines."

"I couldn't get a name out of him, so I can't confirm that," Kris told him. "I can say that he was... almost... *smug* about whatever it is."

"Smug?" Thompson's eyes popped, then narrowed as his forehead furrowed. "I don't like the sound of that..."

"Frankly, sir," Kris went on, "I'm not absolutely sure this is a good lead."

After what she had just reported, Thompson was brought up short. "Why not?"

Kris paused before responding. "A feeling. I'm just not sure Hardy knows what he's talking about. It just feels to me like someone's fed him some story, and he's just... accepted it. In fact, is thrilled by it. I said, Hardy isn't stupid. But at the same time, he's not very sophisticated, especially when it comes to people. I suspect someone's playing him."

Thompson considered Kris' statement carefully. "If so, who? And why would they do that?"

"I don't know," Kris replied. "But if he's being smoked, I doubt we're going to get any useful information out of him."

"I disagree," Thompson said quickly. "There may be a good reason to smoke the Chief Operations Officer of Verdant... to keep him from discovering something going on under his nose. If we can find out what, it may turn out to be a bargaining chip for us."

After a moment, Kris shook her head. "I don't see how I—"

"Stick with him," Thompson interrupted her. "You've done a good job getting close to him. Try to tease out of him the identity of whoever is feeding him this possible misinformation... and we'll see if maybe it's something we can use."

Kris returned Thompson's gaze, and didn't bother to hide her disagreement with his orders. Still, she reflected, he was the boss. "Anything else?"

Thompson considered a moment. Kris had a good idea what he was considering... the look in his eye was very familiar. Finally he said, "I suppose not. That's all."

Kris nodded, got up, and left the Chief of Staff's office (and walked very stiffly, knowing full well where Thompson's eyes were lingering, as she left). She closed the door quietly behind her, and only when the door was closed, she allowed her displeasure of the man to show on her face. In her business, she had spent more than enough time with sexual predators, and honestly didn't mind a man who simply enjoyed pursuing sex for sex's sake. But Thompson's kind of predator was the worst: He mercilessly lorded himself over women; physically and emotionally dominated them; and worst of all, made it clear that he was willing to use his power and influence to destroy the career of any woman who denied or displeased

him. How his interns managed to tolerate such treatment, Kris would never understand... how much could those power-whores seriously expect to get out of him in the long run? Of anyone she had to deal with on Verdant, Enu Thompson was the one man who she just wanted to see off of the satellite as soon as possible.

And she now wondered if he was allowing his nature to cloud his intelligence. She thought she was clear when she told him that Hardy only thought he knew what was going on, and she couldn't see how Thompson had missed that. Ordering her to spend more time with Hardy was putting her on a wild goose chase, she was sure of it. And not that she couldn't stand Hardy—he was a wimp, but he wasn't a bad person—but she didn't want to waste her time for no good reason.

Kris descended the stairs to the diplomatic floor. As she did most of her work outside of the compound, she did not actually have a desk assigned to her, but she had access to a bank of workstations in a common room. She considered spending the time there for the morning, to see if she could possibly dig up some further info on the mysterious “secret” that Hardy thought he was carrying. But she didn't know where to start... she was an under-the-covers spy, not a data miner. Maybe she could find someone else who could poke around for her, maybe one of Thompson's interns...

And as her eyes roved around the room, they fell upon a familiar face that she rarely saw at the compound, except, she reflected, when the President was visiting. She smiled, and turned in that direction. It was only when she was close that the other person looked up from a datapad she was reading, noticed her, and returned her smile. “Well, hello, Kris. How are things?”

“Not bad,” Kris replied. “Nice to see you, Shay.”

“And you,” Shay said. “Working at the compound?”

“Just here to report in,” Kris told her. She didn't need to ask what Shay was doing here: She supposed Lambert was busy with matters of state, leaving Shay with some free time until he was ready for a break.

Shay likewise didn't need to ask too many questions about Kris' work. They had encountered each other on many occasions, and they both knew each other very well. Although Lambert hadn't given her many details, Shay could guess what Kris was involved in. The two women made quite a pair, an image not lost on many of those who passed by: Shay, with a lush body built for intense carnal pleasures; and Kris, much sleeker in build, but all the same possessing a magnetism that was easily as sexy as Shay's raw fire. In many ways, they were the difference between a bullet and a scalpel; yet, both were equally efficient at their intended tasks. It was impossible to imagine the heterosexual male that wouldn't be driven crazy by at least one of them, if not both. “They have you trying to find some leverage over the immigration issue?”

Kris nodded. “I'm working CnC. Aaron Hardy.”

“Getting anywhere?”

Kris made a disgusted face. “I don't think so.” She sat on the edge of the desk Shay was leaning on. “There's maybe a lead, but Thompson has me working the wrong end of it.”

“Knowing him,” Shay said in a low voice, “the ass-end.”

Kris smiled. They both knew Thompson well. “Does Lambert have any better feeling about how this is going to work out?”

“No,” Shay replied. “His hands seem to be tied. He simply has no leverage to apply. They tried to get Geneva on their side, but it collapsed. And with the freight services grounded, they don’t have any bargaining chips. This Yellowstone thing has just screwed everybody royally.”

Kris shook her head sadly, and the two women exchanged glances. They didn’t need to voice what was going through both of their heads: *This is way beyond a couple of pieces of tail* .

“What’s your lead?” Shay asked after a moment.

“Someone’s smoking Hardy,” Kris told her. “He thinks there’s something that will solve this problem and put a nice bow on it.”

“Hardy must be the one smoking,” Shay smirked. “Who could convince him of something like that?”

“That’s what I need to find out,” Kris said. “Then maybe I can figure out why... and if that why is something useful. I just doubt I’m going to get it from Hardy.”

“Well, at least Hardy gets you access to CnC,” Shay said. “If you can’t get it out of him... maybe someone else can cough it up through him.”

“Maybe. We’ll see.” Something else occurred to Kris, and she inclined her head toward the upper floors. “Are they planning to stay here?”

Shay made sure no one was in earshot before she replied. “I think so. They clearly don’t want to hurry back. I’m pretty sure they think Yellowstone is the proverbial nail in the coffin.”

~

On her way out of the compound, Kris considered Shay’s words carefully. It was one thing for the President to be negotiating improved conditions for the United States. But if he and Thompson were simply angling to stay on Verdant, their strategy was completely different... they were negotiating for themselves, which ultimately meant, to Hell with the country. It put everything in a different light. Including her assignment... and her priorities.

The compound resided on a particularly picturesque corner of the Southern Woods, not far from some very popular campgrounds and picnic areas. Southern Woods was situated in such a way as to afford its visitors an almost full view of Verdant’s “sky,” as it was referred to in popular circles: The entire interior of the satellite, right up to the hub; and beyond to the other side. Verdant’s interior included plenty of greenland, wooded areas (maybe not large enough to be considered forests, but woods, at least), grassy parks and farmed areas on the outermost Floor 20, and additional greenery and gardens on the many other exposed floors, all mixed in with airy living and work spaces and other commercial buildings, with balconies that gave every floor access to the outside air. The overall effect was that of an immense layout of variably-rotating structures draped with elaborate hanging gardens, all of which turned in upon themselves to create their own cathedral ceiling, thousands of feet overhead. It was a view that was hard to resist, the sight of a reversed world still being so relatively new to the average person, and with seemingly more greenery than most ground-dwellers would see from the highest peak.

As Kris exited the main gate and proceeded down the monitored trail that would bring her to the secondary gate—the closest an unauthorized visitor could get to the compound—she looked up into Verdant’s skies, and tried to picture the satellite as another dirty, overpopulated city on Earth... the kind



of place Lambert and his administration would turn it into, if given the opportunity. Kris had lived on Verdant for six years, now, in a pleasant apartment in the upper northern floors. She could just imagine stepping out of her apartment, and over the bodies of the squatters that would be sleeping in her hallways, the assault on her senses by the sounds of snoring and the moans of the sleepless, the smell of the unwashed, the blight of ragged clothing and possessions in piles and boxes all around... she suppressed a shudder at the thought. No matter what, she wanted no part of that.

On the other hand... if Lambert planned to stop at establishing his own home on Verdant, it was possible nothing here would change. That was an idea Kris could support. In fact, she reflected, if there was a way for her to take matters into her own hands, to pull the few strings that were within her reach, to set up residence for Lambert alone... she would willingly do that. And she would only ask one thing for her trouble: To be retired from government "service," finally independent, free to do whatever she pleased... to sleep with whomever she desired... to live the life she wanted. That was a deal worth making. And Kris was sure she would be willing to manipulate anyone she needed to, in order to make that deal.

Was Aaron Hardy the person to manipulate toward those ends? She doubted it. The more she thought about it, the more she was convinced he was a tool. But she had to find out who was using him, before she could move on, to reach those strings she needed to pull. That could take time... and she wasn't sure how much time she had.

## 10: Reading the Opposition

There was a different vibe when Kris walked into CnC (beyond the usual reactions that her arrival tended to create, that is): In one way, it was less tense, the novel pressures of the Yellowstone eruption now days behind them; but at the same time, there was a renewed tension caused by the continued flight restrictions, and the prospect of an extended period without regular flights. Kris could feel it the moment she walked in, could see it on the faces of the staffers. It was a clear apprehension over things to come.

And she was part of that apprehension. The Verdant staffers would look at her in terms of her role as U.S. government liaison, and would see the implied threat she posed. To them, she was nothing more than a spy, an interloper that ultimately intended to subvert them. And unfortunately, they were exactly right. So Kris had no intention of denying it... instead, she intended to play it openly, *yes, I work for Uncle Sam, sorry for the intrusion, so let's make the best of it, shall we? At least I'm easy on the eyes ...*

She saw Aaron across the room, speaking to a staffer in the logistics section. She got close enough to hear Aaron tell the staffer, "You let her know she does not have the luxury of time. She has her requested equipment, and we need results *now* ..." before he noticed Kris, and his demeanor abruptly changed. To the staffer, he finished with, "Go. Get them on the stick."

As the staffer moved away, Aaron turned to Kris and smiled expansively. Inwardly, she winced: Anyone who saw that smile of his, would know exactly what she had done to earn it. *Might as well show them videos...* outwardly, she returned the smile, though slightly more subdued, hoping to telegraph to Aaron: *Propriety, modesty, privacy ...*

"Good morning, Miss Fawkes," Aaron greeted her. "Ah, I expect the President has had a chance to

review our counter-report to Geneva by now.”

*Clumsy, but quick on the uptake*, Kris thought. *Thank goodness*. “Yes, he has,” she replied, glad to be able to get right down to business. “And he has some questions, of course. There may be areas where he thinks there is still room for compromise. I’d appreciate the CnC’s help in getting the information he’s looking for.”

“Of course,” Aaron nodded, maintaining friendly formality as best he could. Truth be told, he was not good at it. He had the look of a teen who, if given the opportunity, would grab her and duck into the nearest broom closet when he thought no one was looking. Well, he had been her first choice... it was her own fault. Nevertheless, she gamely allowed him to steer her toward one of the open workstations, where he began to outline its many functions and methods of data access, as well as its ability to draw information from or send information to the central workstation.

“That can be useful,” he explained, “because the central station can offer a more detailed display of raw data, or graphs and 3-D projections. It can also combine the data from multiple workstations. You can get a lot from looking at the big picture, but sometimes, you need that serious detail to work out what’s really going on.”

“I see,” Kris encouraged him, and listened patiently as he explained the controls of the station. She further prompted him with some opening questions, and Aaron showed her how to call that information up, how to display it in front of her, and how to send the more detailed projections to the central station. After awhile, Kris was calling up her own data, and asking further questions only when she needed clarification on something.

Many of her questions intentionally touched on the issue of supplies and deliveries, in an attempt to gauge his reaction to the subject. Not so much his actual answers, but the way he gave them... that was what Kris was paying attention to. And the more he said on the subject, the more Kris was convinced that he did not expect it to be an issue, or at least, not for very long.

So, she eventually reached a point where part of her research included calling up delivery schedules for the necessities Verdant needed to survive. Taking the opportunity by the reins, she said: “The satellites’ supply problems never seem to go away. I’m sure it’s always number one on your list of things to address.”

“Almost always,” Aaron replied casually.

Kris looked at him. “What about now?” Aaron returned her glance, but before he could reply, she added, “I got the impression that one of your pressing projects might have had something to do with supplies.”

Aaron replied, but after a noticeable pause, which Kris attached significance to... he was measuring his response, making sure he did not say too much. “Yes, we have a research project in the works, down in the science section. We’re looking into some new freight delivery systems.”

“New?” Kris did not have to feign confusion, and she let it show. “You can fly supplies in freighters... and you can put them on guided rockets. What else is there?”

“That’s what we’re exploring,” Aaron said. “It’s all very experimental, though.”

“Oh. So this isn’t what you were talking to that other technician about,” Kris said. To Aaron’s reaction,

she added, "You seemed to be telling him to get some results from something."

"Oh," Aaron nodded quickly. "Actually, same project. But they're lagging behind. With everything else going on, I may have to postpone the project if they can't give us some coherent results soon."

This, Kris could tell, was an outright lie. Whatever the project was, he had no intention of postponing anything. "What kind of results?"

Aaron shrugged, his eyes blinked. . . he was looking for a way to tell her something that wouldn't tell her anything. "Some equations that need to be confirmed," he responded finally. He seemed about to add something, probably as empty as his first reply, when a staffer appeared at his side. After a brief exchange, Aaron turned back to Kris. "Please excuse me," he said, and his relief was evident. "Some business I need to take care of elsewhere. I'll leave you to your research, and I hope to see you later."

Aaron left with the staffer. Kris watched him go with veiled disappointment at not being able to get more out of him, but she recovered quickly: It was a testament to her ability to work a crowd, that she was soon eliciting help from the other nearby staffers, not monopolizing their time by any means, but all the same receiving as much assistance as she needed. And using the central workstation turned out to be useful in another way: Her occasional forays to the center of the room, knowingly putting herself on display while she coquettishly examined a projection she had created, didn't hurt to guarantee she had more than enough men around to help her if she asked.

She set three research nodes in action before her, two of which, there for the benefit of her many onlookers, were related to her studies for the President, and intended to draw the most attention. The third, displayed as an innocuous table in the near corner, was a trace of research being carried out in the science section related to supplies and deliveries. She looked for names, dates, resources, anything that might be connected to such a search, but in fact, she wasn't sure she'd know what she was looking for if it came up out of the workstation and bit her. There was an automation study that had the theoretical mathematics department busy. There were numerous equipment requisitions—Kris had heard Aaron mention equipment, but without specifics—though they seemed to be for everything under the sun *except* something that might conceivably carry freight. She registered the fact that most of the entries she encountered listed Dr. Jacqueline Silver as its research head, but then, so did most of the research projects in the science section that she could see. That made sense, as Dr. Silver was the head of the department, and obviously wanted research projects kept under her close supervision. But for the life of her, Kris couldn't see anything in there. She finally made a copy of the data on a private chip, with the intention of having someone at the Presidential compound examine it later.

So intent was she on copying and concealing her chip that she almost didn't notice someone appear alongside her. She looked up, perhaps too quickly, to find Julian Lenz standing next to her.

Julian reacted to her surprise. "Oh, sorry . . . didn't mean to startle you."

Kris responded by smiling and shaking her head. "Oh, that's all right! I didn't realize how absorbed I'd gotten in all this data."

Julian glanced over the open documents filling the workstation, and smiled. "You should get out more." Kris chuckled lightly, just an exhalation through her nose, really, but it conveyed the desired effect. Julian was pleased to see that his joke had gone over. He leaned closer to see her data. "Looking for anything in particular?"

"Some areas where there might be room for negotiation between your offices and ours," Kris told him.

“Ah,” Julian nodded and glanced away, but he did not give her the impression of being bothered by her assignment, or her admission. After a moment’s pause, he added: “Having any luck?”

Kris stopped and looked up at the Ceo. That was probably the last thing she expected to hear him say... well, maybe second-to-last, after, “Sure, here’s one you missed.” Was he that confident in their situation? Or just underestimating her ability to find anything?

Julian finally looked down at Kris and smiled. “I realize this is a bit awkward,” he said kindly. “However, we really are all on the same side. Believe me, Verdant wants the United States to thrive as much as we want to thrive. We all have to work together.”

“In order to all live together,” Kris stated. “You’re right, of course: We’d all do better to be less adversarial in our negotiations.”

“Discussions,” Julian stated. “I believe we’re still in the ‘discussions’ stage.”

Kris was taken slightly aback by Julian’s correction, and despite herself, her smile faded. “Of course. Excuse me.”

Julian shook his head. “No... excuse me. After what I just said, I didn’t mean to be so blunt.” He scratched his neck self-consciously, and shrugged. “Fact is, I’d welcome any areas where we can find useful common ground. Unfortunately, I’m pretty sure immigration quotas won’t be that ground.”

“Yes,” Kris said, thinking furiously over what to say. “Maybe we have to consider that subject the... the opening serve of the match.” She immediately reconsidered. “No...”

“Because that would imply a fault,” Julian finished for her.

“Then... the opening gambit of our first hand,” Kris suggested.

“Better,” Julian nodded after a moment. “Win or lose, we still have the rest of the game ahead of us.”

“Exactly.” Kris smiled at his response, and Julian found himself smiling back. She had a way about her, an aura of confidence, which was hard not to acknowledge, or respond to. Julian had the distinct feeling that he would enjoy anything that would coax that smile from her, and especially if it was directed *at him*

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At that moment, Julian realized that he had been lingering on her face for a split-second longer than propriety allowed. He blinked and looked a few degrees aside, not wanting to be too obvious about the fact that he was purposely averting his gaze from her.

Kris saw his delayed reaction, and immediately suspected she had made a connection... but the shift of his eyes suggested he was either dismissing it, or being shy about it... she was not sure. She decided to prod him with a single word: “What?”

Julian glanced back at her, his eyes forthright but still unreadable, and he smiled slightly. “Nothing... you just reminded me of someone I used to know.”

Kris studied him closely... *this man is so hard to read*. “Who?”

“I’ll tell you some other time,” Julian replied, casually, as if it was merely something he didn’t want to discuss in the openness of the CnC. Kris was relatively sure he was dodging the subject, but before she could push her advantage, he turned and stepped away. She watched him go for a moment, before taking notice of other staffers noticing her watching him... and she dropped her eyes back to her displays.

Julian moved casually to one of the weather workstations and examined a GOAA projection map. In fact, he was barely looking at it... he just needed the excuse to distance himself from Kris Fawkes. She was working for the United States government for the sole purpose of finding a way to take the upper hand with Verdant... despite his casual banter with her, he knew that. And more, she was an entrancing woman, and she had already proven her willingness to use her wiles on Aaron Hardy. Julian was simply not interested in being her next professional conquest.

“Hmm. Still raining in Kilimanjaro.”

Julian turned. He hadn’t seen Reya come up beside him... well, actually, she had come up from behind him. Inwardly, he sighed. He knew what was coming. “Yes, but it will probably let up tomorrow.”

“That Miss Fawkes seems friendly towards you,” Reya said innocently.

Julian nodded. “She’s very professional. Easy to work with.”

“You should pump her.”

Julian’s head spun around so fast, he felt his neck crack.

Reya looked up at him innocently. “For information.” She smiled briefly, exaggeratingly, then said, “What?”

“Smart ass,” Julian finally said, looking back down at the display. But he could not keep the smile from his face.

Reya watched him as he continued to pretend to read the display, barely suppressing her own mirth. Finally, she gathered enough composure to say, “What are you thinking about now?”

“Making you walk the next orbit,” Julian said.

Across the room, Kris wondered what the Ceo and his Eo were laughing at.

Her attention soon shifted, however, to a commotion on the other side of the room. Various of the staffers at their workstations had become agitated. Julian and Reya picked up on the commotion in a few moments, and headed over to that side of CnC, their smiles slowly dissolving from their faces as they neared the workstations.

“What is it, Paul?” Julian said as he neared the closest of the stations.

“We’re getting reports of riots on Qing,” the staffer reported. He indicated his workstation, and various screens which showed scenes of crowds rushing about, altercations going on in enclosed spaces, and running text feeds of goings-on, some in Chinese with GLIS-supplied English translations. “Sounds like an altercation between security and residents that were being forcibly removed from their homes.”

“Removed?” Reya repeated. “To be put where?”

“Don’t know,” Paul told her. “I can’t get any official feeds. But there’s a lot of encrypted chatter between Qing and Beijing. And I can’t get exact numbers, but I think at least half a dozen ships are inbound to Qing from China.”

“*Ay, Madre*,” Reya said. “They’re going to stuff the place with refugees.”

At this point, other staffers not involved with those stations began to stare, and the volume of chatter halted everywhere but at the workstations that were in communication with the other satellites. Kris had also stopped working, and watched them silently from her workstation.

Paul was continuing, as he examined the multiple feeds on his workstation. “The residents are protesting being displaced, and they’re... they’re demanding, looks like, to send the incoming ships back. Here,” he said, pointing at a text feed, “this scientist is stating that Qing cannot handle the influx of—”

He suddenly stopped speaking. The text feed had gone black, taking Paul by surprise, and he stared at it stupidly. Reya, also looking at the screen, said, “What happened to the feed?”

“Cut off,” Julian said. “Probably by Chang.” Hirohito Chang was the Ceo of Qing. He had been essentially installed there by the Chinese government when they’d built Qing, independently of the U.N. But Chang knew the limitations of Qing as well as the other satellite Ceos did... he knew that he had already exceeded them, in fact, and that conditions on Qing had been deteriorating as a result. Julian could not help but wonder how Chang felt, knowing that by allowing Beijing to call the shots, he could be presiding over the final ruination of his satellite.

Then one of the video feeds cut off, followed by another text feed, then another video feed... and abruptly, all of the rest went down at once. “Get them back!” Julian barked, and Paul’s hands flew over his workstation, but the feeds remained dark.

“Sir!” came a cry from another workstation, a girl with a distinct French accent whose name was Eve. Julian and Reya instantly turned towards Eve’s workstation. “There are demonstrations happening on Fertile.”

Julian and Reya moved in that direction. Reya asked, “How bad?”

“Nothing violent, as far as I can tell,” Eve reported. “But it sounds like it’s getting ugly. There’s a lot of talk about demands from Earth to open themselves up to accept refugees. Apparently the A.U. is demanding access.”

“Africa?” Reya goggled. “What a bunch of panicky... the serious levels of ash haven’t gotten anywhere near them yet!”

“But they will,” Julian pointed out, “and they know it.”

“Here,” Eve pointed to a text feed. “If this is actually from the A.U., they’re threatening military action if they are not allowed access...”

“What the Hell’s going on?” Reya protested.

“This is getting out of hand fast,” Julian muttered. “China must be spooking them. Not to mention all the

doom-and-gloom scientists.” He looked over to another workstation. “Dana: Any word from Tranquil?”

“Uh,” Dana started. She was obviously busy reading multiple feeds. “Uh, no riots or anything, but...” Her voice faded as she read her screens.

“But what?” Reya strode over to Dana’s workstation, while Julian continued to examine the feeds from Fertile. Fertile was still considered a U.N. satellite, but as it was primarily financed by Middle Eastern Muslims in exchange for majority control, Fertile acted as an almost-independent entity. There was no telling how they might react to African threats, or if they had the ability to do anything about it...

“Julian,” Reya got the Ceo’s attention. She indicated multiple feeds on Dana’s workstation, as Dana looked to Reya, her face a mask of shock. “Statements from RPI to Tranquil,” Reya said. She started to recite what was on the screen: “Due to the increasing sensitivity of freight activities caused by the current geologic crisis, and the political—”

Then Reya stopped, read a moment silently, and finally looked up at Julian. “RPI is refusing to send ballistic freight deliveries to Tranquil.”

Another staffer voiced what everyone else was thinking. “They’re cutting them off?”

Julian’s mouth fell open, and he and Reya stared at each other across the room. CnC went silent, the only noises coming from a few low-volume audio feeds and the background chirps and beeps of the room’s workstation electronics. Kris watched the tableau unfold from her workstation, almost afraid to move, her eyes slowly widening as she looked from Julian to Reya, to the rest of the CnC staffers, and the awful implications of that message set in.

Then, slowly, Julian turned to another workstation. “Hadj, do we have any incoming messages from RPI?”

The young Indian at the workstation looked up from his board. His eyes were wide. “Sir... we have the same message.”

CnC was stunned into silence. Julian immediately surveyed the room and spoke up authoritatively. “All right, everyone, relax. We all know that, even in the event of a complete cutoff, it will be a minimum of five months before any of our supplies go critical. Tim,” he nodded at a staffer at another workstation, “we’re going to level three conservation restrictions. Get the word out.”

Then Julian turned to Hadj. “Send a priority message to RPI, demanding a conference.”

Hadj worked over his console for perhaps twenty seconds, then turned to look at Julian. “They are not responding to calls.”

“Chickenshit bastards,” Reya muttered.

Julian glared at Hadj’s workstation for a moment... then his head swiveled about, and found Kris, still seated at her workstation. He started for her, barely concealed anger roiling behind his eyes. Kris, partly in a desire to present a show of confidence, and partly out of a desire to run, stood up to meet Julian before he reached her. To his unspoken question, Kris said, “I’m pretty sure the President had nothing to do with this.”

Julian finally reached her, and stood glaring down at her. She hadn’t realized before how much taller

Julian was than she. And imposing. She involuntarily caught her breath and fought the urge to gulp it back.

A rumble finally emanated from Julian's throat. "Well, we'd better find out what he thinks about it... and if there's anything he can do."

# 11: Embargo

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Verdant, like all of the orbital satellite habitats, had multiple access and egress point for its service ships, freighters and patrol craft to use, depending on the craft, its job, and the needs of the handling systems. Although most of the largest ships, such as the Cetacean and Theropod classes, generally docked in the hub area on the southern end of Verdant, where they could take advantage of microgravity to transfer their massive cargos, many of the smaller freighters and ships docked in the outer bays, allowing ease of access under gravity.

Verdant, of course, rotated to maintain gravity within, which could have made it difficult for ships to dock into rotating bays on its skin. Therefore, the satellites were equipped with capture armatures that rode on tracks on the outside of the satellite, moving in counter-rotation, so as to provide a non-moving target for smaller ships to dock to. Once the ship was in position, the armatures would capture the ship, then slowly accelerate to begin to alter their rate of travel, to start the ship moving along the satellite's skin. Eventually, the armature would roll around to a reception bay, which would open and receive the armature and the captured ship. Once the ship was in the bay, the armature would stop its travel, and the ship would be under a full gravity. The bay could then be closed underneath all but the largest such ships, acting as a floor and airlock to allow easy access. Launch was the opposite of this process, though frequently with one exception: The armature could simply release the ship, and allow centrifugal force to ease the ship out of the bay.

One such bay was about to perform this operation, with a Nautilus class tug. The Nautilus class was a vessel designed to be operated by two to three persons, and it came equipped with an impressive set of multifunctional arms and articulated equipment mounted just under its nose. It was designed to ferry small objects about in the local area, perform orbital repairs, and guide larger ships to their docking positions if need be. In this particular case, the Nautilus had a payload, about a meter in diameter, secured to one of its arms and cradled with another, waiting to be deployed.

The pilots waiting within the Nautilus were likewise waiting to be given clearance to launch. They sat in the cockpit, one of them relaxed and calm, the other impatient, his leg bouncing off of his heel as if keeping tune to a driving rhythm.

"Are they going to let us go, or what? Jesus Christ, what's taking so long?"

"Hunter, give it a rest, willya?" Goldie sighed a long-suffering sigh and rolled her eyes at the ceiling. "It's not as if you have something else you need to do... is it?"

"That's beside the point," Hunter grumbled. "They're doing this just to screw with us. They're having



some fun with the guys who got chewed out by Luis...”

“Well, let that be a lesson to you. Next time, don’t do anything that will get you chewed out by Luis.”

“I was doing my job!—”

“Oh, shut up. Before I put in my request to transfer the Hell away from you once and for all.”

At that, Hunter grinned snidely. “And go where? Do what? You want to fly a freighter? *Oop*, sorry, no one’s flying freighters now!”

“I’d fly one straight into Yellowstone if it meant I didn’t have to listen to this—”

*“Control to Naut-vee-four-three,”* came a voice over their com. *“Flight has been cleared. Stand by for auto drop in fifteen seconds.”*

“Thank you, Control,” Goldie responded. “Engines are hot. Waiting for your drop.” Hunter started to speak, but a cold look from Goldie convinced him to stay quiet this time. They both watched their control boards as a clock counted down, accompanied by a subtle beep upon each second. When the clock reached zero, there was an audible *clunk* from above them, the action of the armatures opening up and releasing them, and Hunter and Goldie experienced freefall as the tug dropped out of the bay.

“We’re cast away,” Goldie confirmed as she worked the tug’s controls. “Proceeding to program coordinate Alpha.”

Hunter watched, his hands folded across his chest... standard procedure was for two rated pilots to fly a tug, but as long as Goldie was at the controls (she had won the ro-sham-bo match between them), he had nothing he had to do except spot her in an emergency, or take over if she wanted a break. He could also manipulate the outboard equipment, if she was too busy piloting the craft when the time came. But according to the program they were running, even that would not be necessary.

After about a minute of silence, Hunter began to speak. He tried to keep the belligerence out of his voice, in deference to his partner, but he was still grumbling. “Don’t understand why we’re even out here. Everything going to Hell in a handbasket... Qing rioting... Fertile demonstrating, which will probably end up being rioting... Africa threatening Fertile... the U.S. pushing us... and now, RPI refusing to fly our supplies up...” He stopped speaking long enough to look at Goldie, who returned his look. It was not only clear that she was aware of everything Hunter had just rattled off, but he could tell that she considered each of those points as dire as he did. “And in the midst of all that,” Hunter finished, “they have us ferrying science experiments out into high orbit! For what?”

Goldie just shook her head. She may not have wanted to admit it aloud, but she agreed with Hunter. Verdant was already on level three supplies restrictions, and everyone in the flight services expected to have to go onto defense alert at any minute. But instead of standing by their Wasps, they were dropping off a beach-ball-sized package for who-knew-what. She couldn’t understand the importance of it, either, and she wondered silently whether CnC really had a handle on what they were doing.

“All I can say is,” Hunter added, “we’d better not see any action while we’re stuck out here in this stupid thing. The worst we could do would be to flip off whatever came by.” To punctuate his words, he extended his middle finger on one hand, and used the other hand to pantomime waving at something passing in front of them, a stupid grin on his face.

“Yeah, yeah...” Goldie watched her navigation boards as they neared the coordinates specified by their program. Dr. Chiu had programmed the tug, and the payload had already been mounted, before they had arrived on duty (and been reassigned to the tug duty instead of their usual first-shift Wasp flights). Their only instructions had been to fly to the coordinates, leave the payload in a parking orbit, and return to Verdant. Not to watch it, do anything to it, or connect it to anything else... just to leave it. What was it supposed to do?

“Classified,” they had been told. But wasn’t it just a science project? “Classified.” Which meant they didn’t need to ask again. So they hadn’t; they’d put on their flight gear and sullenly climbed into the Nautilus.

“Maybe it’s something defensive,” Hunter suddenly piped up.

Goldie looked at him. “Then why are we putting it in orbit above us? Wouldn’t we be putting it between us and Earth?”

“Hey, it’s experimental,” Hunter shrugged. “It’s classified. Maybe it’s supposed to stay hidden up here. I don’t know.” He looked at the payload critically, trying to fathom its purpose. “We should be taking advantage of this situation... not letting the ground dictate to us. We have the high ground up here.”

“Sure,” Goldie nodded. “Only they have no problem reaching this high ground... and we have nothing to hide behind, and nothing, offensive or defensive, to throw down at them. What good is that?” Hunter, declining to argue the point, slumped down in his seat.

As they neared the coordinates, Goldie worked at her board. The tug slowed perceptively, and soon, a series of tones indicated that they had come to a relative stop. “Control, this is Naut-vee-four-three. We’re at station,” Goldie announced.

*“Roger. Proceed with deployment.”*

Without bothering to ask if Hunter wanted to do the honors, she reached for the manipulation controls. Hunter didn’t protest... he was content to watch. As Goldie worked, the cradling arm angled out of the way, leaving the payload poised at the end of the manipulator arm. Slowly, the manipulator arm began to unfold and extend, pushing the spherical payload away from the nose of the tug. It took about twenty seconds to extend the payload a distance of five meters from the tug. Then, Goldie tapped a release control, and the manipulator pulled free of a small capture port on the side of the payload.

“Payload away,” Goldie said. “Holding at station.”

*“Good job, guys. Come on back.”*

And that was it. “Roger,” Goldie said, exchanging another glance with Hunter. “Naut-vee-four-three is on the way back to slip twenty.”

“Good job, guys,” Hunter mocked after Goldie had closed the com channel. “Control, we’ve scratched our asses. ‘Good job, guys.’ I just don’t believe it. That thing,” he pointed at the payload that was even now disappearing from their view as the tug spun around and angled back to Verdant, “better be something defensive. Or, if things get bad, I’ll come back out here and personally drop it right down on top of Denver!”

The mood in CnC wasn't much better than that in a particular tug heading for its dock. The staff was relatively quiet, rendered even more so by the fact that most of them had no traffic to monitor, no supplies deliveries to coordinate, and no communications from the many ground-based stations that interacted with them on a regular basis. It felt as if they had been cut off from the rest of the world, and the isolation was oppressive. Reya Luis practically stalked CnC, as if looking for a single thing, an improper setting at a workstation, a device accidentally turned on or off, that she could pounce on, set right, and restore things to normal.

From one end of the room, Kris watched Reya as much as she worked at the station set aside for her. She had had a conflicted night herself, after spending the afternoon and into the late evening at the compound. She had accompanied Julian there at his request, after the events at Qing, the demonstrations at Fertile, and the supplies embargo from RPI. Kris had been unsure as to why Julian wanted her along as he went to urge the President to intervene in RPI's decision. Maybe she had managed to give him the impression that she really was an impartial player in this little drama, and that she might manage to help him in his discussions with Lambert. Maybe he had just hoped she would tell Lambert she had found no area where Verdant was hiding some undisclosed advantage over Earth, and therefore win Lambert's trust. Maybe he just thought having her in the room would prevent him from losing his temper or saying something he shouldn't.

It had made little difference, as it turned out. Lambert took the position that he had no real control over American businesses, and he certainly could not order RPI's Gordon to resume deliveries if he chose not to. Lambert then suggested in that perfectly circular logic peculiar to politicians that, if Verdant could offer something to appease the United States—say, an easing of immigration quotas—then he could certainly speak to RPI and try to convince them to do the right thing.

Julian's response to Lambert's attitude had been something Kris was not sure she would forget for quite some time. He had calmly but firmly launched into a comprehensive and well-organized dissertation of the state of Verdant, from the satellites' original origins as orbital factory complexes, to their commissioning by the U.N. as human oases in space, details about its people, their work and the exports they produced for Earth, and finally the delicately-balanced open ecosystem that was so dependent on the cooperation of Earth to maintain, and so doomed to failure without that cooperation.

Kris didn't remember the last time she'd heard anything so eloquent, so heartfelt, outside of the best theatrical performances... making it all the more impressive, since she knew this was no performance. As Julian spoke, she considered the various facts she had been gathering by working in CnC—although certainly no one would have expected it of her, she actually had used the workstations to research Verdant's situation, not simply as a platform to conveniently spy on CnC—and she understood the situation much better now than she had a week ago. And so she knew that Julian Lenz was not exaggerating the issue, or dramatizing any point unnecessarily; he was being completely candid with the President. The impact on her was significant: She was developing serious doubts as to who she should be working for.

In the end, however, Julian's efforts made no impact on Lambert. Without Julian's acceptance of eased immigration, he wouldn't budge. And after hours of back and forth, Julian had simply stood up and walked out of the President's office, without so much as a "good-bye," out of the compound, and to the nearest tram station. Kris had fought to think of something to say to Lambert, but he had pre-empted her with "I think this meeting is over." She had then left the President's office, and the compound, too late to share a tram back with Julian, too late in the evening to call Aaron (not that she wanted to spend the night with him), and not knowing where any of it was going to lead.

When she turned up in CnC the next morning, Aaron had found her, and seemed satisfied with her explanation for why she had not called him. Not long thereafter, he had been called away himself, and left her in CnC to do her “research.” In truth, she was happy to see him go. There was only one person in CnC that she really wanted to speak to.

But that one person was secured away in his office, and the door between them might as well have been a chasm.

~

Julian actually did not want to simply sit there at his desk. But he was too preoccupied with the current situation, and he knew it. He did not want his people to see him this way, angry, terse, frustrated... it would be worse on them than their being out there and simply wondering what he was doing in here. So he sat, and tried to think constructively about what could be done about such an untenable situation. But he could not keep his mind on constructive things, and every so often, found himself thinking more vindictively than practically. And he’d mentally kick himself for it, and again be glad he was expending all this negative energy while hidden away in his office, and not in CnC where people could see him...

When the knock came at the door, he almost snapped out at it. Instead, he composed himself enough to call out, “Yes?” without sounding like he wanted to bite the head off of whoever dared to interrupt him. The door slid open, and Hadj poked his head meekly inside. Julian knew then that he had indeed managed to spook his staff, in their presence or not. He tried again to mediate his voice into one of calm when he said, “What’s up, Hadj?”

“I’ve finally gotten a response from RPI, sir,” Hadj told him. “I have Walter Gordon on circuit nine-one to talk to you.”

“About time,” Julian muttered. Then: “Thank you, Hadj.” He waited until Hadj had withdrawn and slid the door closed behind him. Then he took a deep breath, and punched up circuit ninety-one on his workstation. A com screen lit up, and Julian recognized Walter Gordon on sight: He had seen Gordon’s face many times before, had communicated more than once, though they had never met directly. Gordon looked at Julian impassively, his eyes narrowed slightly in his soft face... and upon seeing that expression, any intention Julian had had of giving the man the benefit of the doubt flew right out the window.

“Walter,” Julian began. “Nice of you to finally deign to speak to me.”

“Julian,” Gordon replied. *“First of all, I apologize for not being able to talk yesterday. You have no idea what’s been going on here.”*

Julian raised an eyebrow. “I can relate.”

*“Yesterday we had a ballistic go blind and plunge into Death Valley.”*

Julian regarded the screen for a moment. “I hadn’t heard.”

*“We were lucky. It missed a solar generating plant by only two kilometers. The DOE is very unhappy with me.”*

“They’re not the only ones, Walter.”

*“Now come on, Julian! Don’t take that tone with me!”* Gordon played the injured party well, just

well enough to keep Julian from laughing in his face. *"I'm doing everything I can to get supplies off the ground... but this ash layer is just being too hard on my ballistics. After yesterday, I have no choice but to run a full operations check before I can authorize another launch! I have no choice in the matter!"*

"Walter, you know we need those deliveries to survive. What possible reason could you have to hold us up like this?"

*"Now, Julian... we both know the satellites can hold out for months without supplies. Listen, this'll blow over! We both know it! Probably in... I don't know... five or six weeks, depending on the breaks... give or take two weeks..."*

"Christ, Walter, do you know how close that will push us to our limits?..."

*"I don't control the weather, Julian. I'm doing the best I can... but it's difficult from here."*

Julian was alerted by the change in Gordon's cadence. Finally, a hint of what he had expected all along. "What do you need, Walter?"

*"Oh, it's not what I need,"* Gordon said quickly. *"I'm just trying to straighten out a problem... at your end, actually. The RPI offices on Verdant are falling down on the job of providing us with needed logistics, and it looks like we need to make some major personnel changes up there. The only problem is, it's difficult to get a handle on it from down here, especially now, and we're still working on it."* Gordon paused, as if he'd thought of something. *"What we really need is to get up there to do a direct evaluation of the facility, in order to make some changes. Some good, long-term changes that will keep them running at speed even after the crisis is over."* He stopped and thought again. *"Julian, there is one thing you can do, now that I think of it."*

"What do you need, Walter?" Julian repeated.

*"Julian, I need to see that facility,"* Gordon said. *"But I need authorization for a temporary visa to do a visit. I've been trying to get it through channels for over a month, but... is there any way you can see clear to getting that authorization rushed through? It would mean a lot to getting this problem straightened out."*

Julian stared at the screen, sure he was trapped in a nightmare. *Is this all you want... all you'd risk... just to get to Verdant? Are you that desperate to escape Earth?* He leaned back from the viewscreen, and rubbed his temple wearily. A tirade of epithets virtually scrolled through his head... things Julian wanted desperately to say to Gordon, to show him how incredibly petty and pathetic Julian considered him. But Walter Gordon held the key to access to the supplies Verdant needed. He had Julian over a barrel, at that moment, and they both knew it.

On the screen, Gordon watched him. After a few moments of silence, he said, *"Julian? Seriously, it would help if I—"*

"Done, Walter," Julian cut him off. "Get your ass up here... straighten out this problem... and get my supplies flying. Understand?"

Gordon's face immediately brightened. *"I'll be on the first transport I can get—"*

Julian severed the connection before he could finish.

When Julian finally came out of his office, minutes later, his face was impassive. Kris saw him as soon as his door opened, but she pointedly did not stare after him. Reya also saw him appear, and approached as he walked slowly past the workstations towards the center station. She fell in step beside him, as he strolled slowly around the central station.

“I’m authorizing a temporary visa to Walter Gordon of RPI,” Julian said to Reya without preamble. “Assuming he actually gets a flight into orbit, make sure he is cleared to visit Verdant.”

Reya could tell from Julian’s face that it was the wrong time to ask for details or clarifications on the subject. “I’ll take care of it.”

Julian continued to walk, heading towards the corridor that was the exit from CnC. When Reya realized he was leaving, she said, “In case we get boarded, where will you be?”

Julian finally stopped, turned and looked back at Reya. A tick of a smile crossed his face. “Checking the powder room.” Then he continued on.

One of the technicians who was nearby Reya repeated, “Powder room?”

Reya regarded the technician. “That’s what you used to call the place where you stored your explosives and armaments,” she explained calmly. By the time she had turned back to the corridor, Julian was out of sight. “Sure wish we actually had some of those,” she added quietly.

Reya returned to the central workstation, trying to find a ray of good news somewhere in the pall of chaos that seemed to hang over everything. She was so involved with her examinations that she didn’t notice the empty workstation where Kris Fawkes had been working.

## 12: Secrets

Kris turned out to be surprised when she realized Julian was not actually headed for the science sections, as she had expected. Instead, Julian visited Aaron Hardy in his office. Kris had slipped out of CnC after Julian had left, even managing to get out unnoticed by Reya Luis, who was so distracted by the events of the last twenty-four hours that her hawk-like monitoring had finally slipped. She had then shadowed Julian, trying to figure out his next move... and hers.

His stop at Aaron’s office gave her pause. She believed Aaron knew, or thought he knew, something that would help them... but she didn’t think Julian suspected that. Had he figured it out? Maybe not: If Julian thought Aaron was hiding something, he would probably have bypassed him to find out what was really going on. He would have gone to the science section, just as Kris wanted to do. She was sure that whatever was going on was happening down there. She had hoped that following Julian down there would have given her the opportunity to find out what it was.

Or maybe Julian knew what Aaron was hiding... because they were both in on it, and Julian was just better at hiding it than Aaron. She had already experienced how hard it was to read Julian; maybe he was the one behind whatever... *No*, Kris thought, shaking her head. *You’re thinking this too deeply.*

When Julian finally left Aaron's office, he headed in a direction other than the one that would take him to the science sections. Briefly Kris considered going after him, but a moment afterward, Aaron came out of his office. As Kris watched, Aaron turned in the direction of the science sections. Kris paused only a moment to consider her choices, before heading after Aaron. She followed as long as she could without Aaron realizing she was shadowing him, until an appropriate opportunity presented itself in a cross-corridor, and she angled her approach as if she was just coming out of the corridor after he had passed by. Then she called out: "Aaron!"

Aaron turned and saw Kris, seemingly approaching from the cross-corridor, and stopped to wait for her. "Good morning, Kris. Keeping busy?"

He was referring, of course, to the night before, when Kris had been in a meeting with Julian and the President late into the night. He had seemed okay with the situation earlier that morning... now, just a few hours later, he sounded bitter. "Is something wrong, Aaron?"

Aaron, in response, pulled back and bit and reconsidered his words. "Maybe that came out heavy... sorry."

"That's all right," Kris dismissed it quickly. "Has something happened? You seem bothered by something." Before he could answer, she added, "Where are you going?"

"Oh..." Aaron faltered, mentally switching gears. "I'm going down to the science offices."

"May I come along?" Kris asked quickly. "I'd love to see the kinds of things they do there." Aaron seemed hesitant for a moment. "It might also allow me to see some of the things I've been collating from CnC, for my report."

This seemed to be good enough for Aaron, and he finally nodded. He continued on, Kris falling in step next to him, close enough to occasionally brush their arms together as they walked. The faint contact quickly served its purpose... within a minute, Aaron's gait was a bit slower and more relaxed. Kris pushed her advantage by asking: "So, is there a problem in the science sections?"

"No, not a problem," Aaron replied easily. "A few holdups, but nothing serious."

"Connected to your freight delivery project?"

Aaron did not react outwardly... that was what gave him away. He was trying to be non-chalant about that project. In fact, he considered it very important. Without looking at her directly, he replied, "That one is proving to be tricky... but we'll get it."

"Is that something that might influence the President? If so, I'd like to know more about it if I could. Who's the head of the project?"

"Actually, that one's not that big a deal," Aaron lied. "I'm mainly going down to see if we can get some help analyzing the ash-related damage being taken by the ballistics. We're hoping we can work up a better way of protecting the ballistics. Yesterday, an RPI ballistic suffered a static-related guidance failure flying through the ash layer, causing it to crash-land."

Kris did not have to pretend to look shocked. "I hadn't heard! Was anyone hurt?"

"Apparently not... it pancaked in the desert, almost hit a solar generating plant, but it didn't do any

damage to anything except its payload... which was completely lost.”

“So you want to better protect the ballistics?” Kris asked, and Aaron nodded. “Would your freight delivery project impact that?”

Aaron gave an elaborate shrug and turn of his head. “Well... possibly,” he replied.

This time, Kris effectively hid her shock. Aaron apparently believed this project would make the ballistics problem a non-issue! The more she spoke to Aaron about it, the more her curiosity was piqued. Just what was going on down there?

When they reached the science sections, it was all Kris could do to avoid staring hard at everyone and everything she passed, intent on discovering the hidden secret that Aaron was protecting... or thought he was protecting. But none of the scientists and engineers she passed seemed to be keeping anything close to the chest, or otherwise keeping an eye out for sneaky spies like herself. If anything, she was getting the kind of looks she usually got from those who were attracted to her, but nothing to suggest suspicion or distrust of her. These people apparently had nothing to hide.

Eventually, they reached a door, and entered an anteroom. The opposite wall had another door, marked, “Science Director.” Aaron stated aloud, without preamble, “Aaron Hardy to see Dr. Silver.”

“Good morning, Mr. Hardy,” an automated voice spoke out of nowhere. “Please go right in.”

Aaron opened the door and motioned for Kris to go in first... but Kris shook her head and frowned. *You are the Coo, and the one announced. You first.* Aaron acquiesced, and went into the office, followed two steps behind by Kris.

Dr. Silver was looking up and smiling when Aaron entered the room. Upon seeing Kris, however, her smile faded slightly... more from surprise than anything, Kris was sure, but she could tell Dr. Silver hadn’t expected to speak to a stranger. She stood from her chair and came around the desk. “Good morning, Aaron.”

“Jacqueline,” Aaron greeted her. He quickly turned and indicated Kris. “This is Kris Fawkes. She’s part of President Lambert’s diplomatic corps.”

“Nice to meet you, Miss Fawkes,” Silver smiled and offered her hand. “And are you working with Aaron?”

Kris caught her meaning clearly: *Are you working on Aaron?* She returned Silver’s smile and shook her hand. “I’m trying to liaison with CnC, to see if we can establish some common ground for future negotiations.”

“Ah,” Silver nodded. “Smoothing over the diplomatic channels. I hope you’re having some success.”

“Some,” Kris replied.

“Jacqueline,” Aaron cut in, “you’ve heard about the RPI crash yesterday, right?”

“Yes, this morning,” Silver replied, indicating two chairs to her guests, and starting back around her desk. “Sounds like no one was hurt, thank goodness.”



“Yes,” Aaron said, digging into a jacket pocket. He extracted a storage chip. “But I spoke to Julian this morning. He has doubts about the veracity of RPI’s claims.”

“So did I,” Silver admitted. “Their ballistics should be able to handle some bad weather. That’s what they’re designed for.”

“Right,” Aaron nodded, holding out the chip. “This has RPI’s initial report on the crash. They sent it to Julian this morning. He thinks it might be doctored to support their situation. He’d like your lab to take a look, and see if you can find anything that looks trumped up, exaggerated, or outright faked, in order to support their position. We may need to litigate if it looks like they’re lying to avoid culpability, or just to con us out of more money.”

“Of course,” Silver said, taking the chip. “If there’s anything bogus in here, we’ll find it.” She then looked at Kris. “And what do you make of this situation, Miss Fawkes?”

Kris regarded Dr. Silver for a split-second. She had already established, between the two people with her in the room, which would be the most challenging poker-player. Silver was supposed to be a genius... and her talents clearly included a thorough knowledge of psychology and body language. She was reading Kris almost as well as Kris was reading her. “Well, I’d hate to think that RPI is taking advantage of the situation for their own ends,” she replied smoothly. “But we all know stranger things have happened. President Lambert is as interested in the truth as I am, so we’ll know what appropriate action to take.”

Dr. Silver nodded, dropped the chip into a reader, and began typing instructions into her workstation keyboard. As she typed, she said, “I’m going to parse this out to a number of specialists we have here. They should be able to give us some preliminary indications within a few hours.”

“Are any of them working on Aaron’s freight delivery project?” Kris asked.

Aaron brought his head around and stared at Kris, obviously taken by surprise. But Dr. Silver regarded her calmly, apparently nonplussed by her question. “As a matter of fact, no,” she replied smoothly. “Why do you ask?”

“Well,” Kris said, knowing she couldn’t play her hand too heavily, “Aaron mentioned it, and I was just curious. He suggested it might help the current freight delivery problems you’re having.”

“Well, anything’s possible,” Silver told her. “But that’s a long ways down the road. We have much more pressing projects right now, that one’s small potatoes.”

Kris smiled inwardly. *This woman is good. But maybe too good.* Kris could tell she was didn’t want to talk about the project. “It just sounded interesting, that’s all. I’d love to know more.”

“Well, at the moment, we happen to be waiting on some patent rulings, so I’d rather not go into any details on it,” Silver stated simply. In his chair, Aaron shifted about in such a way as to indicate a sudden sense of calm. The legal dodge... always a big hit.

But the little charade had told Kris something concrete: It was Dr. Silver who was hiding something about that project... and being that it was her, Kris was now sure that there was something serious to it.

Once they were out of Dr. Silver's office, Kris decided to see what she'd get out of a direct press. When there was no one around to overhear, she looked at Aaron and said, "You and Dr. Silver are cooking up something serious back there." Aaron looked down at her, badly hiding his concern. "Something that's going to really shake up the freight situation. Why are you hiding it? It seems to me that if your project, whatever it is, will have that big an impact on freight delivery, it would make a big bargaining chip... something Verdant could use right now."

Aaron's expression shifted rapidly as Kris watched: At one point, he seemed to see a logic to her argument; but something else was trumping the urge to speak out, even though he wished he could... he *wanted* to.

This revelation caused Kris to turn and put a hand on Aaron's chest, bringing them both to a halt. "Aaron," she said earnestly, "I realize we both know who I'm working for. It may seem like we're at odds here... but all I'm after is the truth, which is what's best for Verdant. I'm also a Verdant resident, and I don't want anything bad to happen to this place... my home. President Lambert... well, he may want a lot," she went on. "But he's not crazy. And he does not have the backing of the U.N. on the subject of immigration. If you have a good enough lever, and you use it, he'll *have* to back down!

"Please tell me: *Why won't you use that lever?* "

Aaron's eyes began darting back and forth, almost as if he was listening to conflicting voices on either side of him, arguing for and against Kris' point. But Kris saw the exact moment when one of those voices won out, and he suddenly drew himself together. "Look, it's simply too early to discuss the project. Its..." Aaron looked away as he finished. "Its success... is not assured. We don't want to get anyone's hopes up."

And there it was, in the shift of his eyes, the inclination of his head, the slumping of his shoulders—the *real* reason Aaron was holding back. Kris saw it clearly now: Aaron was afraid of the damage that would be done *to himself* by revealing the project before it was proven successful. He was protecting his own reputation... or his career... probably both. He was nothing more than a coward.

This time, Kris let her professional mask drop. Aaron could plainly read her face this time: *She understood him perfectly; and she was very disappointed* . He knew what else that meant, too. Slowly, he dropped his head, and nodded. "Yeah. Yeah. Well, if you'll excuse me, Miss Fawkes, I have an appointment." He spared one last glance at her, meeting her eyes for only a split-second, before turning and walking rapidly in the opposite direction, down the corridor, around a turn, and out of sight.

Kris made no effort to go after him.

## 13: Futility

As Calvin Rios came out of the sixth lab in the science sections that he'd visited that day, he massaged his temple irritably. His assignment was beginning to give him a throbbing headache... though he suspected that the incredible electrical energy being generated in the last two labs may have had something to do with it. He was so preoccupied with his discomfort that he almost ran into someone

coming around the corner, who grunted and kept moving. “Uh, sorry,” he mumbled, not even realizing he had almost collided with Aaron Hardy.

So far, his efforts to make sense of Tranquil’s theoretical force field data had only resulted in a string of failures and personal embarrassment... mostly from those scientists and engineers that knew enough about energy to realize how crazy it sounded. He had been visiting labs all day, speaking to particle physicists, theoretical physicists, unified field specialists, electrical engineers, mechanical engineers, and even scientific historians. The last labs had been practical labs, and the experts therein had gone through the trouble of actually setting up experiments and demonstrations, real and virtual, to prove the fact that force fields didn’t work. Calvin’s ears were still ringing from the frighteningly-loud multiple *CRACK* s of an ultracapacitor array firing off bursts of stored power, trying to generate enough power to deflect a simple laser beam, with no success. And a hardened ballistic missile would have even less of a problem sliding through such a field.

But even Dr. Silver had suspected there might have been something buried in there, somewhere... so did he. Calvin was supposed to be renowned for his ability to “sift through the forest to find the single tree that mattered,” as an old colleague had put it once. More than once, he had demonstrated an unerring ability to make sense of that which confounded everyone around him. Julian Lenz knew that, which was why he was on this assignment. And he had the distinct feeling that he was on the verge of that again. At least, he hoped he was... if he could manage to come up with something that would protect Verdant, he knew how monumental that would be.

But right now, he was fighting an eye-blurring headache, and just wanted to go home. He was glad for the late hour, because it meant Verdant’s interior lighting was dimming for the evening, leaving the impression of a darkened sky with stars organized into cylindrical patterns overhead. It was a fascinating effect, but at the moment it was lost on Calvin, and he was just glad for the low lighting being easier on his tired eyes.

He almost didn’t notice the voice that spoke his name as he passed down the corridor. At about the moment that it registered, he heard it again: “Dr. Rios?” He stopped and peered over with tired eyes, to see Kris Fawkes.

“Oh... Miss Fawkes,” he said, blinking to clear his eyes. “I’m sorry, I was distracted...”

“No, I’m sorry, I didn’t mean to bother you,” Kris said quickly.

“No bother. I’m just heading home for the day.”

“You look tired,” Kris said sympathetically, falling in slow step next to him. “Is Dr. Silver’s freight project keeping you busy?”

“Hm?” Calvin frowned, actually struggling to focus on her words. Finally he remembered the project Valeria had mentioned: She’d said it as one of Dr. Silver’s projects; and Jacqueline had mentioned a freight project, too. “Oh, the... I’m not working on that project.”

Now it was Kris’ turn to frown. “You’re not? I thought most of the department was working on one aspect of it or another.” This was an exaggeration on her part, but she wanted to see how Calvin would respond to the statement.

To her disappointment, Calvin said simply, “I’m not part of the sciences department. I’m working directly for CnC. I really don’t know what most of the people are working on here.”

“Oh, I see,” Kris nodded. “What are you working on, then?”

“Just some miscellaneous research for CnC,” Calvin replied, clearly not wanting to go into detail. “Which seems to be going nowhere,” he added, making the need for detail largely moot anyway.

“I’m sorry to hear that,” Kris volunteered. “It seems,” she continued after a moment’s pause, “that there are a few projects being worked on here that may be an inappropriate use of valuable time, given the current situation.”

“Well,” Calvin said, “I’m not sure I’d go that far.” Kris looked at him significantly. In return, he shrugged. “You never know what might turn out to be useful.”

“Mm,” Kris nodded. “Well, I hardly see how freight experiments are going to be useful to anyone right now. Even ballistic deliveries have been cancelled due to the caldera and the ash cloud.”

Calvin shrugged again. “Without knowing more about the project, there’s not much I can say about it. Have you considered talking to Dr. Silver, to get more detail?”

“I already talked to the man who put her on the project,” Kris explained. “Aaron Hardy.”

She looked to see what kind of reaction Calvin would make. His face reflected an effort to integrate this thread of information into an already-existing fabric, but it seemed only to confuse him more. “Hardy’s project? Hm. —but he wouldn’t tell you anything about it?”

“No,” Kris replied. “And frankly, it has me concerned. What’s so secretive about freight experiments?”

Calvin didn’t seem to be able to think of a good reason to conceal a program like that, either. “Strange,” he said quietly. Kris, examining Calvin’s face and gait, was pretty sure he was too tired to be able to successfully hide anything from her, and she was sure he knew, but was honestly in the dark, about the freight project. But based on Aaron’s reaction, the project was potentially a big one, and she didn’t understand how Calvin could not know about it. . . unless it was being actively hidden from him. Could that be because, as he said, he was working for CnC, and therefore considered outside of some inner circle of Verdant scientists? If so, what was that inner circle working on that they didn’t want CnC to be aware of? Surely not a series of freight experiments!

At any rate, Kris didn’t think she’d get any more from Calvin, and could tell he was looking for a polite reason to break off and get home. “Well, I’ll see if I can speak to Dr. Silver about it. Thanks for your time, Dr. Rios.”

“No problem,” Calvin said as Kris angled away from him, leaving him alone to proceed home. Within two minutes, he had all but forgotten the conversation.

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By the time Calvin reached his flat, his headache was mercifully almost gone, but it had been replaced by a fatigue that threatened to buckle his legs before he made it in the door. Maria heard the door open, and looked around the corner from the kitchen. “Cal, honey,” she said as she came out to greet him, “Erin just called, her friend Frieda’s invited her—” Her voice faded as she neared Calvin, and saw how tired he was. “Cal, you look exhausted! Are you okay?”

“Yeah, just tired,” Calvin said, allowing her to steer him into a nearby chair. His knees finally gave way as he folded into the chair, and he landed in the seat with an alarming thump.

“I’ll get you a drink,” Maria said at once, giving him a last look to make sure he was all right, then rushing into the kitchen to get a glass and pour him a brandy. “What have you been doing?”

“Researching Ceo Lenz’s force field idea,” Calvin replied, almost sheepishly. He had told her about the project, and even Maria had thought it was crazy... and she didn’t know a thing about physics. “Next thing, he’ll have you trying to grow a black hole in a pot,” she’d said, a reference to a line from a popular video program.

To her credit, however, she did not give Calvin a “told-you-so” look when she handed him the snifter. She simply smiled sympathetically, and said, “Had no luck?”

“Worse,” Calvin said. “I almost had my brain melted by well-meaning engineers intent on proving how crazy the idea is.” He took a draught from the snifter, almost draining it in one gulp. Maria noted it, and went back to the kitchen to get the bottle. “A few of them kept suggesting brute-force lasers would be better... but then they’d turn around and say, ‘On the other hand, aiming is a problem, and it’s even easier to deflect a laser.’ I don’t know... if there’s something to this stuff, I don’t see what.” He took another draught, draining the snifter, and when he brought it down, Maria was there, pouring more brandy into it.

“Drink,” she directed. Calvin grinned, and took another sip. “You’ve had a long day,” she said. “But you’re home now. Relax. Dinner’s almost ready.” Maria smiled, and headed back to the kitchen.

Calvin leaned back in the chair and tried to let the tension drain out of his shoulders. After a moment, he started to take another sip from the snifter. Then he remembered something Maria had been about to say. “Hey, did you say Erin—”

Calvin stopped when he looked up. Maria had returned to his side without his realizing it. “You were looking in the wrong place, I think,” she said. Calvin frowned, not understanding. “You’re looking for something outside of the raw data... something intuitive,” she explained. “I know how you think, Cal. The *last* thing you should have done was to go see a bunch of scientists.”

Then she turned, and returned to the kitchen. After a moment, Calvin raised his snifter to her.

The brandies finally helped to relax Calvin, and to remove the last of his headache, making dinner much more pleasant than his day had been. He and Maria talked about nothing in general, Calvin making a point of allowing his mind to drift into the mundane areas of everyday life, and temporarily forget his assignment... or, at least, to put it in the back of his mind for awhile.

After dinner, they decided to watch some video programming. Calvin let Maria choose, and she found a program providing tips for home food-gardening in a compact satellite environment, a popular pastime amongst satellite residents. They discussed various points of the program as it ran, comparing the vegetable gardens on the program with their own home garden, considering new layouts and tending techniques, and possibly trying new vegetables they had never before tried to garden. It was a nice, light, relaxing way to pass an hour, and left them both in good moods.

The program afterward was a documentary, about the many pastimes and distractions enjoyed by twentieth-century Americans and Europeans. The twentieth century had represented the pinnacle of recreational variety, the direct result of the conspicuous consumption and unbalanced credit-based

affluence that had begun to draw to a close by the early twenty-first century. As documentaries went, it could be painful to watch: At one point, the viewer would be treated to behaviors that seemed to be the height of irresponsibility, almost comic in its presentation; and the next, would be a pastime, essentially harmless in itself, but lost due to the ravages of environmental damage, that one could only feel a sad nostalgia for.

And throughout it all, were scenes of idyllic outdoor vistas, blue skies, swimmable beaches, open fields, and vast forests... the twentieth-century world that was so rapidly disappearing beneath them. The narrator did not bother to point out the differences between the green world of the twentieth century, and the warming-ravaged lands of the modern era... he didn't need to. No modern viewer could help but look at all that natural landscape, and want to cry at how much of it had been lost.

But Maria was different than most viewers. As the scenes progressed, she became more animated, her eyes shining brightly. "Oh, Cal, look at that park! We really should visit that sometime!"

"Didn't they say that was Shenandoah National Park?" Calvin said, too emotionally tired to do anything except respond automatically. "It looks nothing like that now... coal mining has ruined the ecosystem there."

And Maria would become quiet... until another place was highlighted. "Oh, the Grand Banks were beautiful! Have they changed much since then?"

"Unfortunately, they're all submerged now. Some of those houses were designed to float during floods... the ones that are left are permanent houseboats now."

And so it went:

"Oranges can't grow there anymore. Too hot."

"Very few salmon that aren't farm-raised now. The bears don't have much to catch during spawning season."

"The Saharan sandstorms supposedly reach all the way to Maine, when the winds are right..."

"What else is there to watch?" Maria said abruptly.

Calvin suddenly realized where their conversation had been heading, and he was immediately sorry. He knew his wife still held out hope to see the best of Earth again, the lands documented in those old travelogues, the majestic vistas and vibrant parks. And despite the fact that those parks and vistas largely no longer existed (because, for all her love of all things Earthly-natural, she seemed somehow to be wholly ignorant of what was and was not in existence on Earth anymore), she was adamant that, if you went down there and just looked, you could still find the pristine beaches, the quiet forests, the lovely sunsets. But his unthinking, offhand comments were bringing her down.

Maria found an old movie... and despite the fact that it appeared to be well into the narrative, she seemed to be happy to watch it. Calvin made no protest, even when he realized the movie starred Cary Grant... not one of his favorite actors... seemed to take place aboard a submarine, not one of his favorite means of transportation... and centered around a bunch of women rather transparently forced into such close quarters with the men, resulting in the predictable gags that you'd expect out of a twentieth-century American movie, not one of his favorite genres.

He wished he could think of something to say to Maria, to placate her—but they had done that dance before, and he knew she saw right through him when he tried to encourage her belief that there was still something down there to see. So he stayed silent, and settled in to watch.

~

“Does it at least look different? Has it maybe changed color, or something?”

Goldie regarded Hunter with long-suffering weariness, as the tug she was piloting approached the same coordinates that they had flown out to that same morning. At those coordinates waited the beach-ball-sized package that they had deployed that morning, and which they had been ordered to pick up. “Looks the same to me,” Goldie said calmly. After a moment, she looked again at her screen. “Hold on.”

Hunter, up to that point doing his best not to look bored, uncrossed his arms and looked hopefully at the monitors. “What?”

“The access panel lettering,” Goldie said, peering at one long-distance camera. “Look: All the words are reversed.”

Hunter squinted for perhaps three seconds at the camera monitor, before realizing what was going on. Slowly, he leaned back in his chair, gave Goldie a sour look, and intoned, “Very funny.” Goldie just grinned to herself, as she brought the tug into a parking orbit before the payload.

*“Naut-vee-four-three,”* came the voice over their com. *“Request fine coordinate check on payload. Report any differences from delivery coordinates, please.”*

“Yeah,” Goldie said distractedly, flipping a few switches on her panel. After a few moments’ examination of the incoming data, Goldie keyed the com. “We detect drift of point-eight-six centimeters from deployment point, on a bearing of one-eighteen true by sixty-three.” Even Hunter nodded in approval: That small amount of drift was impressive.

*“Roger that, Naut-vee-four-three. Capture payload and return to dock.”*

“Understood,” Goldie replied, and brought the tug closer to the payload. Hunter brought a hand forward and keyed up the controls for the capturing arm, surprising Goldie with the fact that he was making any effort on this assignment at all.

Hunter caught her look, and shrugged. “Hey, the sooner we grab it, the sooner we get out of this tin can. Besides, this is turning out to be the high point of my day.” After a moment, the arm captured the payload, and the console filled with manipulating data. “Looks like no changes from this morning,” Hunter commented. “Did it do anything at all out here?”

“Just drifted, I guess,” Goldie shrugged.

~

Shay Vaughn regarded Gaston Lambert in the low light of his bedroom, trying not to look overly concerned, nor overly critical. Their sex had been short and uninspired that evening, despite Shay’s best efforts to encourage him—not to say that it was not enjoyable, but certainly not memorable—and now, Lambert didn’t seem to be able to sleep. She knew better than to question the sex at such a moment...

unfortunately, she really wasn't sure what to say about the thing she knew weighed so heavily on his mind.

Finally, trying to be as matter-of-fact as she could, Shay said: "I understand Walter Gordon caught an HST to Panama. They're expecting a break in the ash layer, long enough for a transport to get through. He expects to be in Verdant tomorrow." Lambert did not reply, or even acknowledge that he'd heard her. "Then you two," Shay continued, "can start planning on a strategy to influence Lenz—"

"Don't tell me my job," Lambert said quietly but firmly.

"Sorry," Shay said, running a hand across his temple. "I just wanted—"

"I know what you want," Lambert cut her off again. "We both know who you work for... and it's not me." Finally he turned to face her, his eyes hidden by the gloom, but Shay was positive he could see her clearly. "But it's pointless. There's nothing Gordon can say to change facts. There's nothing that's going to make this problem go away. There's nothing that will make a larger population sustainable on this satellite... nothing we have to give, anyway. And any increase would be miniscule compared to America's population. Therefore, there's nothing I can do here that will ultimately help America.

"And, God help me, I'm not even sure how much I care anymore," he added. He rolled back onto his side, his eyes open (Shay could see them now) and staring up at the ceiling. "My Presidency is already a foregone conclusion. I can continue to issue orders from up here, but the people have already concluded that I am a failed leader, ineffectual when it really counted."

"No," Shay said, stroking his forehead, wanting to say that she didn't believe it was true, that he was being too hard on himself. But she didn't speak... because, ultimately, she knew he was right. No matter the truth, the people had surely condemned him by now for not being able to somehow stop the outflow of lava and ash, with his bare hands if necessary. It was horribly unfair... but it was also a fact. People actually were that simple in understanding and unforgiving of their leaders.

"At this point," Lambert continued, "I just want to cut my losses and back out while I still can. America will scorn me... I might as well preserve myself." He paused, and took a series of deep breaths. "And the fact that I'm even thinking like this... makes me sick."

~

Enu Thompson responded to the tone of his personal phone by looking at the aide in bed next to him. After a quick glance, she dutifully handed him the phone, then slid out of bed and padded across the room. Enu waited until she had closed the door on the bathroom, leaving him alone, before he responded. "Thompson."

*"It's Kris. I need some information."*

"Go ahead."

*"I've discovered there's an experimental project of some sort going on. Coe Hardy is heading it, and Dr. Silver is supervising it. But they're keeping it very quiet, even keeping the details from others in the command chain."* Kris paused to let that sink in. *"Is there any possibility that they're working in cooperation with anyone in our offices? Maybe doing something under the table?"*

"If they were," Enu countered, "do you think I could tell you?"



*“You might,” Kris replied, “if it would make it easier for me to accomplish my job of infiltrating CnC.”*

Enu considered for a moment before he replied: “We don’t have them working on anything for us. Do anything you can to find out what it is, and especially if it could help or hinder us.”

There was a pause at the other end, as Kris weighed his answer. *“That’s all I need,”* she said finally. *“Thank you. Good night.”*

“Night.” Enu closed the connection, and waited. After a moment, the bathroom door opened, and the aide padded back into the bedroom and slid into the bed.

She kissed Enu passionately, and when she pulled back, she asked, “Problems?”

“Yeah,” Enu replied coldly. “Everybody asks me too many questions.”

~

Hunter and Goldie watched as the spherical payload was lowered carefully onto a wheeled platform held in place by a technician from the science section. Another man from the science section, Lin Sen Chiu, stood nearby with a pad that he was apparently using to gather data from the payload, even as it was being transferred to the cart.

Chiu seemed to be nodding a lot, which finally prompted a reaction from Hunter. “Hey, doc, what did that thing do, anyway? Anything at all? I mean, what is it?”

Chiu regarded Hunter calmly as he asked his questions. Finally, he replied, “It’s just designed to take scientific measurements. And that’s what it did.”

Hunter shook his head. “We’re this close to going to war with the planet Earth. And you guys are measuring the solar winds.”

Chiu shrugged. “Among other things. We won’t be needing your services any more today. Thank you both.”

Hunter took the hint. “Well, I guess we’ve been dismissed! C’mon, Goldie, I’m ready for a drink.” Goldie did not respond, other than to fall in step beside Hunter and past Chiu.

Chiu watched in silence as Hunter and Goldie walked away, Hunter throwing one last snide glance his way, before they disappeared among the gear and scaffolding of the bay. Then Chiu turned to a second technician standing by, handing him the tablet. “That goes straight to Dr. Silver, right now. Okay, let’s go secure this.”

## 14: Inspiration

# 11Aug2229

“I hope you weren’t too bored watching *Operation: Petticoat* last night.” Maria called out her comment from her dressing table, just loud enough for Calvin to hear from the bathroom.

“Oh. Is that what that was?” he replied politely. “Yeah, it was okay.” In fact, it hadn’t been... Calvin just didn’t like submarine programs. And it wasn’t simply a claustrophobia issue: Submarines of the twentieth century represented some of Man’s first attempts to create fully isolated environments for long-term occupation; and whenever he saw them in a movie or other program, he was always reminded of how they were always a few inches away from disaster, from a suffocating leak, or a hull-crushing pressure; and how helpless the crew generally was to be rescued (oh, sure, in the movies, they were always rescued... but it was so obviously melodramatic, and miraculous, and *unlikely*, that he was always painfully aware of what the real outcome of most of those accidents were). Subs were the original life-support deathtraps, and it simply creeped Calvin out whenever he saw one.

Of course, he duly recognized the irony of his situation, living in a structure not much different from a submarine, surrounded by an environment no less hazardous... but larger by many orders of magnitude, and 300 years more sophisticated besides. And it didn’t hurt that he didn’t need to duck his head wherever he walked, either...

Calvin finished shaving, and rinsed his face clean, absently watching the last drops of his shaving foam drip into the water in the sink as he contemplated his day. He was tempted to simply throw up his hands and go to Ceo Lenz, tell him that the force field idea was a hare-brained bust, and retreat to his office for the duration of the crisis. He wished there was another way, but he simply couldn’t see it.

“Well, it’s just a fun movie,” Maria was saying, as she stepped into the bathroom and reached past Calvin for a deodorant bar. “And that Cary Grant... he’s so smooth!”

“Smooth,” Calvin nodded. He just couldn’t see it. Grant acted... as if he was *always acting*. What kind of an actor was *that*? And he hadn’t thought the movie was particularly funny, anyway... quite obviously made for the titillation factor of sexy girls in close quarters with randy sailors. Throw in a few women’s underwear jokes. *Hilarious*.

“Oh, yes,” Maria was saying. She rubbed the bar on her underarm, then paused, and considered the bar for a moment. “Cary Grant always looks like the kind of man who never has to worry about sweating,” she said lightly.

“Would that we were all like him,” Calvin commented, throwing Maria a wry glance.

“Oh!” Maria nudged him playfully. “Finish up, so I can get in here.”

“Yup...”

“And when you’re out there,” Maria continued, indicating with a nod that she meant the rest of the apartment, “find out from Erin if she wants some breakfast—”

Maria abruptly stopped speaking when Calvin rushed by her, headed quickly for the bedroom door. He paused before he reached it, spun about, stepped into a pair of loafers, and snatched a shirt from his closet. He bolted out of the bedroom, past a startled Maria. “Cal! What are you—” But she stopped when Calvin passed Erin’s room, passed the entrance to the kitchen, and continued on to the front door.

He was still pulling his shirt on as he flung the door open and bolted out towards the promenade.

“*Cal!*” Maria yelled, but Calvin was already gone. A moment later, the door to Erin’s room opened. Their daughter peered out, looked in one direction at Maria, in the other direction at the open door, and back again to Maria. “Mom? What’s going on?”

“I have no idea,” Maria told her daughter. “You want breakfast?”

“Yeah, I guess,” Erin said as she glanced in confusion back at the front door. “Is Daddy all right?” Maria didn’t answer right away, so she took a step toward her parents’ bedroom. “Mom? Is Dad okay?”

“Yes, dear,” Maria finally answered. “Just in a hurry, I suppose.”

Erin came into the bedroom, and saw Maria standing by the bathroom door. She was staring at the forgotten towel on the floor, the sink Calvin hadn’t drained, and the globs of shaving foam bobbing on the top of the water.

~

Valeria Epstein rolled herself tiredly onto her stomach, her loose black hair cascading over her shoulder blades like a fan. “Oh, my God,” she said, caught somewhere between laughing and gasping. “We need to have celebratory days off more often.”

“Why wait for celebratory days?” Leon Parker, one of her colleagues, quickly rolled over so that his naked body partially draped over hers. “Speaking for myself, I could do this every night.”

“Sure, you could,” Valeria mock-complained. There was no one in the world randier than a math nerd after his incredibly complex abstract equations have just been proven in a real-world application... and that was just the way she liked them. “But I’ll need most of a day before I’ll be able to walk normally again!”

“Well, if that’s your problem,” Leon leered, “maybe we should just get you a wheelchair and—”

“Oh no you don’t!” Valeria yelped, rolling out of bed to avoid his grasping hands. “*Mea Culpa!* Besides, I need something to drink. Coffee?”

“No, I’m awake.”

“I noticed.” Valeria padded out of the bedroom and into the kitchen, fully aware of Leon’s eyes lingering over her naked derriere. Along the way, she passed a string of clothing on the floor, leading from the living room to the bedroom... hers and his... and she reached down and grabbed a shirt... his... to put on. “God, I needed a break after the last week of Jacqueline’s projects!” She started to set up a pot for coffee as she talked. “I was beginning to feel like my head was going to explode from all those coordinate-setting equations...”

“I know what you mean.” Valeria looked up to see Leon coming around the corner. He had recovered his shorts from the floor, which was probably the only thing that prevented her from abandoning the coffeepot and wrapping herself around him again. As it was, the evidence of his manhood pressing against the fabric of his shorts almost melted her right there. “Crisp and Melvin are probably still arguing over those power equations she gave us! Melvin is positive the Phi factor is designed to be used for accuracy, but Crisp swears it’s a mass adjustment factor relayed to subsection twenty-eight! I thought

they were going to throw down right there in the lab!”

“Well, whatever it all means, I’m glad Jacqueline got what she wanted out of it. I just don’t see how it’s all going to be of any use for a freight tracking system, of all things... it’s much too involved to be practical.”

“Who cares?” Leon said, embracing her from behind, then turning her about to face him when she put the coffeepot down. “If Jacqueline wants to reward us with days off every time we solve a theoretical equation for her, I’m all for it! Especially if I get to spend my days off with you—” He was cut off by Valeria’s mouth pressing against his, and the two of them seemed content to forego any further conversation... or coffee.

Suddenly, they were both startled by an insistent pounding on Valeria’s front door, followed by a voice Valeria couldn’t recognize. They exchanged glances, before Valeria went to the door, and opened it just enough to peer around its edge.

The door abruptly pushed open enough for Calvin to thrust himself inside, prompting a surprised squeak out of Valeria. Calvin thudded to a stop in the entry, realizing at that moment that Leon was there, and the three of them looked at each other briefly—Valeria wearing nothing but Leon’s unbuttoned shirt, Leon wearing nothing but his noticeably-bulging shorts, and Calvin in a mis-buttoned shirt, pants, and shoes with no socks—before Calvin turned to Valeria and said, “I need your help.” His head swiveled around to Leon. “You work in the science sections?”

“Uh... yeah,” Leon replied hesitantly.

“Good! I need both of you!”

~

“This really is the force field discussion again?” Leon leaned on the doorjamb in the threshold of Valeria’s smallish den. He, like Valeria, had taken a moment to get dressed as Calvin convinced her to go over some new ideas of his. Valeria was now at her workstation, and Calvin was hovering over her shoulder, which didn’t leave much space in the room for Leon. “Val said you guys got nowhere with it. And come to think of it... she wasn’t the only one.”

“I know... I was there,” Calvin stated, submerging his irritation at being reminded of his earlier failures to convince his peers that his idea had merit. “This is something new. It came to me while I was shaving.”

“C’mon, Cal, I’ve seen your beard,” Valeria protested lightly. “How could you possibly be thinking of anything other than making sure you don’t slice yourface off?”

“Very funny,” Calvin smirked. But in fact, it was because of his beard that he’d had his moment of clarity. His course, heavy beard... and the thick, protective shaving cream he used, to avoid, as Valeria had so eloquently put it, “slicing his face off.”

It had been the shaving cream that had done it: Specifically, the moment he had looked down at a glob of white foam as it bobbed on the surface of the water in the sink; and as he watched, an elegantly circular film had slowly spread out from the glob of foam, adhering to the surface of the water and covering an area much larger than the glob, obscuring the otherwise-transparent water below it...

“Hey,” Leon asked, his eyes narrowing suspiciously, “how well do you know his beard?”

“Let’s go over this again,” Valeria requested, pointedly ignoring Leon’s question.

“Okay: First, we know we can create a force field, but not strong enough to deflect or destroy anything,” Calvin explained. “It requires too much energy to maintain it, so it’s effectively impossible.”

“Right,” Leon said, perhaps a bit too eagerly.

“Second,” Calvin continued, ignoring Leon’s disdain, “we know a particle beam of sufficient energy can vaporize a target. But a particle beam of sufficient energy is difficult to aim, making it almost impossible to track an object. Also, a particle beam can be deflected by many coatings, making even powerful particle beams less than deadly.”

“Right again,” Valeria said. “So what are we left with?”

“We’re left with both,” Calvin answered. “The key is to use them together.”

“How are you supposed to do that?” Leon asked.

“Like this,” Calvin said, pointing at Valeria’s controls. “Set up a mathematical model of a section of a force field,” he instructed, and Valeria’s hands worked over her controls. On her screen, a flat plane was projected. “Okay . . . now designate a spot where a projectile will pass through the force field.” As Valeria worked, a single white line projected itself at a right angle to the plane; it passed through the plane, and a small circular target inscribed itself at the point on the plane where the line bisected it.

“Good,” Calvin nodded. “Now, at that point where the force field is interrupted, there’s a feedback . . . it will essentially sense the spot where the projectile penetrates it. Right?”

“Yes,” Valeria replied. “But it’s still not powerful enough to be useful.”

“Oh, yes, it is,” Calvin told her. “If the field can provide sensory feedback at the spot it was penetrated, it becomes a sensory net. Then that location can be fed into a beam targeting system. Within milliseconds, a particle beam can fire on that spot.”

“But not a powerful one,” Valeria insisted.

“And not accurately,” Leon added.

“It doesn’t need to be as accurate, nor as powerful . . . here’s why.” Calvin pointed at the spot on the plane where the line bisected it, then rotated his finger as if encircling it. “You don’t use the beam to hit the object. The beam is tuned to match the frequency of the *force field itself*. Then, when the beam hits the force field, anywhere in this area, it will pour its energy into the force field at that general spot. That energy will radiate out through the field over a large area, depending on the power and frequency of the beam. So what you get is a large surge of power in a measurable space . . . you see?”

“Hey,” Valeria muttered. “So you don’t actually have to aim it precisely. And it doesn’t have to last long . . .” She considered a moment longer, then her hands flew across her controls.

Abruptly Leon stepped forward and leaned over the other side of the workstation. “You’re talking about making the field stronger . . . but just in a localized space!” His doubting frown was slowly being replaced with an understanding grin. But it began to fade, to be replaced with a look of intense

concentration, when he examined Valeria's equations a bit more closely. "Val, reset the amplitude at potential B, there," he pointed. "If you tie it to the charge state of... yeah, that's it. Yeah."

Calvin watched the two scientists work, and the virtual model morph as they adjusted the parameters. Then he indicated a variable in their equation. "Hold on: The field strength is already malleable, corresponding to interruptions in the field, right? So... suppose you polarized the field by reversing your balance factor B, there..."

Valeria's eyes widened. "Hey, I get it..." She worked on the controls, and Leon occasionally reached down and changed a setting or two in one area of her equations as she worked on another. Calvin, being in his element, did the same in a few other areas, and for a few minutes, the three of them were working simultaneously over the workstation, sharing the same clipped and cryptic mathematical language, massaging the equation in a seamless collaboration.

The virtual model changed again, and Valeria's eyes went wide. "Cal, look! The particle beam surge draws more power from the surrounding force field to that spot... like an additional reinforcement!"

"Look at those theoretical power levels!" Leon goggled. "Anything that passes through that much beam-amplified field potential will be fried!" He looked at Calvin with renewed respect. "That's bloody *brilliant*."

"If it can be made to work," Valeria added. She glanced over her shoulder at Calvin. "But yeah, that's inspired, Cal."

"If it can be made to work," Cal repeated. "But it's a start. It might represent a reliable defense for Verdant, if we get into a shooting war, which is exactly what Lenz was looking for. Val, do me a favor and save all this, so I have something to take to CnC." He glanced at Leon who, when he saw the equations they had worked together, had acquired a gleam in his eye which he directed, straight as a particle beam, at Valeria. "Then I'll let you two get back to your...uh ... day off."

## 15: Window of Opportunity

"Mister Gordon?"

The hand on Gordon's arm awoke him as much as the voicing of his name. He jerked awake with a snort, and looked up at the RPI employee standing beside him, the only other person in the RPI lounge besides himself. "What is it?"

"We've been given clearance from the GAA. The break in the ash cloud happened as predicted. We'll be ready to take off within the hour."

"Within the *half*-hour," Gordon ordered as he pushed himself off of the couch he had been sleeping on, and headed for the passenger terminal.

~

Captain Toliver hovered about his freighter, the *El Capitan*, like a mother inspecting her son before he

was about to leave on a prom date. Not that the *El Cap* ever looked that good... it was, after all, just a commercial freighter. But the maintenance crews had spent a lot of time with the hull polishers, working to clean the coating of ash and the pockmarks out of its surface... then Toliver, himself, had gone back in with a portable polisher to work over some individual areas that personally bothered him. He had especially concentrated on the areas around the primary sensors and ports, trying to make sure his ship wouldn't go half-blind as it had when they had flown up to Verdant. Then he visually inspected the exhaust manifolds and thrust armatures to ensure against problems with atmospheric handling.

The *El Cap* looked essentially ship-shape now, but Toliver continued to fuss over it, making sure he hadn't missed anything. As he walked the length of the ship from the dorsal spine of the hull, he stopped and concentrated on a spot to the port side. Then he stepped over to the spot, stooped down, and wiped a smudge of ash that caked the hull just ahead of a sensory pod.

"Hey, Toliver! You want I should find you a chamois?"

Toliver looked up to the main deck, and saw Hunter Reilly and Goldie Maina passing his bay. Hunter leered at Toliver. "Or maybe we should tell the dockmaster to turn out the lights, so you two can have some privacy?"

Toliver, refusing to be baited, turned back to his inspection. Goldie gave Hunter a withering look. "Man, can't you ever let up?"

"Hey, I'm just trying to help," Hunter said, pausing by the bay to look down at the *El Cap*. Goldie walked a few paces on, before she realized Hunter had stopped; she stopped, too, but instead of rejoining her wingman, she stood where she was, watching him and trying not to show her impatience.

After a few moments, Hunter pointed casually at a point on the hull. "You missed a spot." Toliver ignored him and continued on his inspection. Hunter nodded, as if he'd gotten the response he wanted, and started to walk off... then stopped, as if just remembering something. "Oh yeah, I wanted to tell you that we've seen the experimental freight projects they're doing in the science department. We won't be needing freighters like this much longer."

"Hunter," Goldie warned. Hunter looked at her. "I'm not going to be late on account of you," she said. Then she turned and continued on.

Hunter started after her, and paused one last time to call out to Toliver: "I hope your resume's updated." Then he left, double-timing it to catch up to Goldie.

When Hunter had regained Goldie's side, she said, "You have no idea about the state of those experiments, and you know it."

"Yeah, I know it," Hunter said, grinning and tossing his head to indicate Toliver. "But he doesn't." Goldie ran a hand through her hair, as if to smooth the weariness out of it, and continued on silently.

Toliver had acted uncaring when Hunter had been nearby. Once the pilots were heading out of sight, he finally looked after them. He was pretty sure Hunter was just trying to mess with him... but suppose—

The beep of Toliver's com interrupted his thoughts, and he raised his wrist to his face. "Yeah?"

"The weather report's in," came the voice on the other end of the circuit. "*There's a window opening up now over Central America, and an eighty-plus-percent expectation for it to remain open for*

*the next seven hours.*”

“That’s our window, then,” Toliver nodded. “Start heating things up. We’re leaving as soon as our pilot gets here.” He re-keyed his com and spoke again. “Anise?”

“Yeah, Cap?”

“Window’s opening now. Time to go, double-time.”

“I’m on the way,” Anise replied. “*Fifteen.*”

“Fifteen minutes it is,” Toliver responded. Then he switched off his com, headed for a dorsal port, and climbed down into his ship.

~

By the time Hunter and Goldie reached their Wasps, a technician was already directing the detachment of the power lines and umbilicals. Goldie called out when they were in earshot, “What’s up?”

The technician looked up. “Orders to get you on post. An opening in the ash cloud has appeared, and we’re gonna get some traffic.”

“All right!” Hunter clapped his hands together, and jogged around Goldie’s Wasp to get to his own. Goldie just nodded, took the duty pad the technician offered, and reached for the ladder to her own cockpit.

~

“Yeah, I heard the window had opened up,” Julian was saying to his daughter’s face on his workstation screen. “You’re heading out now?”

“As soon as I get to the bay,” Anise replied. “*Say ‘bye to Reya for me. Love you, Daddy!*”

“I love you too, Ani,” Julian smiled. “Have a safe trip. Remember, in case that window closes, keep enough reserve to re-orbit yourself—”

“We will, gotta go!” Anise cut him off. She was already moving away from the camera, before the image cut off as well.

Julian’s smile remained a moment longer, as he reflected with pride on the dedication of his daughter to her job. Then he tapped the com for the weather station in CnC. “Parker, keep an eye on Central America weather conditions. Let me know if that opening does anything it shouldn’t.”

~

The bay opened underneath the *El Capitan* twenty-five minutes later, suspending the freighter during the last few seconds of its warm-up.

Toliver assisted Anise in going through the final checks, though it was just to speed things up and make it easier on her. “Weather’s still holding out, right?”



“Seems to be,” Anise replied. “The opening has closed up a tad from this morning, but not that much.”

“Good,” Toliver nodded. “With a little luck, I’ll be home with Kenna by lunch.”

“Have you called her? Does she know we’re—”

“I haven’t called,” Toliver replied. “I’d rather she didn’t worry. And you know Kenna... she’ll worry.” After a pause, he asked, “Did you call Sergei?”

Anise shook her head. “But Sergei’s not my husband.”

Toliver gave her a wry look. “Wouldn’t stop him from worrying.” Once they were done with the systems checks, Toliver took his seat and tapped the shipwide com. “Okay, guys, it’s time to go. We’re weightless in ten.”

Anise confirmed that the engines were ready, and set them for their drop, while Toliver listened for last-minute calls from the crew. None came, indicating they were all ready to go. He gave Anise a quick confirming glance, and Anise counted down the last few seconds aloud. “Three... two... one... drop.”

When she hit the release control, the numerous supporting arms in the bay simultaneously snapped open. Instantly, the *El Cap* began to fall, propelled by Verdant’s rotation, towards Earth. As it left the bay, the sense of weight dropped away, and Anise felt her harness going snug and holding her down in her seat.

“We’re away,” Anise announced when they had cleared Verdant’s bay. “On-course for our re-entry slot.” She worked over her controls, watching the outboard monitors as much as her internal readings, to confirm that her systems were ready to perform as designed. “Everything’s behaving itself,” she finally said for Toliver’s benefit, and Toliver nodded from behind her. The Captain actually had an office adjacent to the flight deck, with its own workstation and harnessed chair, from which a Captain would usually ride out a flight. But Toliver was the kind of Captain who spent as much time on the flight deck with the pilot, so he was a regular in the Captain’s chair behind the pilot’s station. And as Toliver and Anise both got along well, and they were both good at their jobs, Anise felt no additional pressure from knowing he was watching her as she worked.

There was no other good reason for a visitor to be on the flight deck during a flight: If you weren’t a pilot, watching someone pilot a large ship using the keypads, toggles, sliders and menu boards of a fully-electronic control panel was hardly interesting or exciting; The heart-racing sounds of thundering engines were damped by counter-sonics, leaving only the beeps and tones of the electronics to listen to; and as there were no viewports in the protected space, only monitors oriented specifically for the pilot’s benefit, there was no view. Still, Toliver felt that his presence could at least save a second or two, for instance in communications between the ship and flight monitoring services, and especially in a critical situation like flying through a shifting ash cloud. And as he had piloted a ship or two in the past, he could at least follow what Anise was doing.

Anise kept her eye on the weather feeds from the GAA as she angled the thrusters for their re-entry angle. So far, the window had shown no signs of closing, although it had apparently shrunk since it was first reported. But in this case, “shrunk” meant that it was only three hundred square kilometers in size... hardly catastrophic. It was altering in shape, however, which would bring *El Cap*’s flight path very close to its northern wall.

“Boss,” Anise said after spending a few more moments examining the ash cloud, “I’d like to swing us a bit more to the west, in order to give us a bit more clearance to the north.”

Toliver unlocked his chair from its spot on the floor track, allowing him to slide forward and examine her screens. After a few seconds, he nodded. “Double-check for any other traffic first. We don’t want to crowd anyone else coming through that window.”

“No prob.” Anise examined her boards for any other ships that were scheduled to fly through the window. When she saw the specs on one ship, her eyebrows went up. “Hey... did you know the *Aztlan* was going to Verdant?”

“No,” Toliver said, leaning over to see the text Anise pointed to on one screen. The *Aztlan* was an RPI corporate ship, a small orbital jet used exclusively by the company executives. “Does it say who’s on it?”

Anise examined the flight codes on her screen. Then she looked at Toliver. “It’s Gordon.”

“Walter?” Toliver slid his chair back. “What’s he doing going to Verdant now?”

“I don’t know,” Anise muttered. “But for the record: I’m glad we’re headed the other way.”

~

Gordon had flown on enough corporate jets to know when one was not behaving itself. The *Aztlan* was not behaving itself now. The air-breathing engines were laboring, the airspeed seemed slow, and the entire ship seemed to be vibrating as if under a severe load. It had also hit quite a number of severe air pockets, leaving Gordon gripping his armrests tightly more than once, and often glaring in the direction of the cockpit.

“If I find out someone didn’t properly service this crate...”

At one point, the flight seemed to smooth out a bit, and almost immediately afterward, the intercom clicked on. “*Sorry about the flight, Mr. Gordon,*” the pilot announced to its sole occupant. “*Despite the GAA data, there’s still a lot of ash and debris out here, and it’s really fouling things up. Reportedly a few other flights that were scheduled for the window have turned back once they reached it. We should still be able to get through, but we’re going to have to go to rockets sooner than usual because of the drag. That means the flight will get a lot louder soon. But it’s either that, or turn around and go home.*”

Gordon thumbed the intercom switch on his chair arm. “Don’t care about the noise. Cut the rockets in right now if you have to. Just get us up there in one piece, understand?”

There was the slightest pause before the pilot replied, “*Understood. I’ll let you know before we switch over.*”

The com clicked off, and a few moments later, the *Aztlan* began a slow turn. The cabin had no portals, but there was a large monitor screen on the forward wall. Gordon keyed the screen to the nose camera, and the screen showed a reddish sky above, and a dark layer below, with the jet seemingly flying between the layers. The screen bathed the cabin in a deep copper hue, giving the distinct impression that they were flying into Hell itself. Beyond was a slightly brighter (or, really, less red) region, tracking towards the center of the camera. As they neared the clear area, the color in the cabin lightened to a dark-pinkish shade, a color somehow just as oppressive as the hellish copper before it.

Abruptly, the *Aztlan* leaned back, pushing Gordon into his seat. At that moment, the pilot came back on.

*“We can’t wait any more. Switching to rockets... now.”*

A roar began to fill the cabin, with an intensity that defeated the efforts of the counter-sonics to quiet them. The ride got rougher, too, as the jet was buffeted by a hurricane-force gale of ash and rock. Gordon gripped the sides of his seat, his knuckles turning yellow, then white.

“Somebody’s gonnadie if this gets any worse.” Gordon wasn’t sure himself whether he was referring to what he intended to do to someone upon landing, or to the fact that he didn’t expect to land at all.

~

“The *Aztlan* just went to rockets at nine thousand K,” Anise called out to Toliver. She had to speak up, because the amount of punishment the *El Cap* was taking from the ash layer was still considerable. “They’re not turning ‘round.”

“That idiot,” Toliver growled, sparing a glance around the flight deck as if he could physically see the beating his own freighter was taking on the outside. “Those corporate jets aren’t designed to take this kind of shit.”

“Neither are we,” Anise complained. “This ash really is a lot thicker than the GAA reports said. We’ll be lucky if we get it down in one piece!”

Toliver didn’t have to reply to that. He could feel it. *El Cap* was being scoured by hot rock and ash. They were in trouble. “Forget the flight plan!” he snapped. “Aim us right into the clearest spot you can find, and put the emergency beacons on full!”

“We’ll pass close to the *Aztlan* —”

“If I could flip Gordon the bird on our way past, I would,” Toliver grouched. “But right now, I’m not sure I can use the bad karma.”

“And we all appreciate that, Cap,” Anise said with a slight smile on her face. But the smile was forced, not doing a good job of concealing Anise’s effort at concentration on her job. Her left hand fingers were tense over a set of maneuvering sliders, while her right hand shot back and forth, redirecting power and thrust from one engine to the other, calling up performance specs, and monitoring the structural integrity of the *El Cap*. At any other time, Toliver would have admired her work... today, he was too busy praying it would be enough.

Abruptly, her right hand shot out and hit the shipwide com. “Air pocket—*hold on!*” she shouted, just before the *El Cap* dropped sickeningly through a low-pressure zone, standing almost on its nose as it screamed through the atmosphere. It was hard to tell from the inside, but according to Anise’s board, the freighter had come close to doing a complete barrel roll through the air pocket before Anise wrestled control back again. Then the *El Cap* began to level out and enter a sweeping starboard turn.

“How are we doing?” Toliver called out.

“Still have all our parts—” Anise was cut off by a suddenly urgent beeping on her board. At that same moment, the two of them could hear a mechanical scream, rising in crescendo, somewhere behind them. The scream ended in a muffled but distinct *ka-thump*, and the *El Cap* bucked, then tilted sharply, forcing Anise to work quickly to compensate and get the ship back on course.

“Okay, check that,” Anise said.

“What was it?”

“We lost the starboard stabilizer control,” Anise replied. “Temp regulator clogged... probably the ash!” She looked over her board. “I can deal with it, but we’d better not lose too many more of those before we hit clear air!”

“How much further?”

“Maybe... six thousand feet. *Maybe*.”

“Grand,” Toliver muttered. “Glad I didn’t waste that karma.”

~

“*El Capitanis* on final approach now,” the monitoring technician was telling Julian, who was standing behind him and examining the workstation readings over his shoulder. “They report clear air below four thousand, and they’re telling ground that they have ninety-percent control. Looks like the starboard stabilizer was the only thing they lost on the way down.”

“Good, good,” Julian nodded, trying not to make it too obvious how relieved he was that his daughter’s freighter was in the clear. “Keep monitoring until she touches down.”

“Yes, sir.”

Julian glanced about to see how everything else was progressing in CnC. He took particular notice of Kris Fawkes, standing out of the way in a corner, but watching the activity intently. When he noticed her, her eyes quickly found him, and she fixed him with the same intent look. She seemed to have something on her mind—and from her expression he suspected it was something she wanted to discuss with *him*—but was wisely saving it for whenever the present tension was over, which was probably a good thing.

So Julian shifted his attention to Reya at the central station. “How’s that incoming look?”

Reya shrugged. “Well, it *looks* like hell—it must have gone through the same crap the *El Cap* did—but they’re still in flying shape, and setting up for approach angle.” Julian joined her at the central station, as she pointed to some images floating in the central column. “We caught this with a monitoring satellite. Look at that damage.”

Julian peered at the photos of the *Aztlan*, and almost whistled aloud at the sight: The passenger jet looked like it had flown out of a mudhole, or maybe through the business end of a blowtorch; its nose was black and scoured; its paint was severely faded, and its outer markings were largely worn and illegible; and the leading edges of its blended-winged body looked scraped raw. “And they report *no problems*?”

“The pilot says damage is largely superficial,” Reya told him. “We have two Wasps escorting it in, and they report he’s having no obvious control problems.”

“Incredible,” Julian said. He tried not to think of what the *El Capitan* must have looked like, if it had gone through that... “Let me know when they dock.”

~

“Mr. Gordon, we came through everything okay,” came the voice from the *Aztlan*’s cockpit. “*We had a relatively close moment, when we had to execute a maneuver to avoid the RPI freighter El Capitan as it passed us on a deviated course... probably due to the same atmospheric problems that we were fighting ourselves.*”

I know *who owns the El Capitan*, Gordon thought sourly. Almost despite himself, he keyed the com. “Are they going to land okay?”

“From what we can get from ground, it looks like they’ll be all right. . . they had a stabilizer breakdown, but they should be able to land safely with just that.”

“And what about us?”

“We weathered through without any major equipment malfunctions, surprisingly enough. . . but we’ll need some serious maintenance before we can return home. We’re entering our final approach window now, on course and on time.”

“Good.” Gordon keyed the com off. “One less firing today, then.”

## 16: Damage Assessment

“Ceo Lenz, can I speak to you?”

Julian was actually surprised by Kris, whom he hadn’t realized had come up behind him. “I’m just about to head down to the docking bays, Miss Fawkes,” he explained.

“I understand,” Kris nodded. She knew he wanted to meet Walter Gordon and talk to him about his freight delivery issues. “This is rather important.”

Julian considered a moment. Then he invited, “Walk with me?”

“Certainly,” Kris smiled graciously, and fell in step as he started down the corridor out of CnC. Julian walked briskly at first, and she found she had to step lively to keep up with him. But in moments, Julian noticed her heels rapping out a staccato rhythm on the deck, and he slowed his pace for her.

“Ceo,” Kris began, “I’m not sure how aware you are of some of the projects going on in the sciences sections.”

Julian gave her a sidelong look. “There are a lot of projects going on down there. Is there one in particular that you’re interested in?”

“There is one in particular,” Kris said as they reached a lift that was just emptying out before them. They stepped in, and Julian pressed the button for the bayfloors. Kris noticed someone approaching, clearly with the intent of catching the lift. . . she reached out and held the *door close* button, closing it on the disappointed person outside. Julian regarded her cautiously as the lift started down, with just the two of

them inside.

“It’s not necessarily the particulars themselves that I’m interested in, however,” Kris continued, seemingly ignoring Julian’s reaction to her desire for privacy. “Rather, it’s the fact that I suspect those particulars are being kept from you.”

Her comment got Julian’s attention. “Excuse me?”

“I’ve spoken to Aaron Hardy about a project he and Dr. Silver are working on. Or, more specifically, I’ve tried. He seems to believe it is a very important project, but at the same time, has been very reticent to discuss it with me. I saw Dr. Rios, and asked him about it, and was surprised to find out that he knew nothing about this supposedly important project. And based on their reactions... I’d bet you don’t know about it either.” Kris watched Julian carefully as she spoke, but he presented that impeccable poker face to her again, and she got nothing from him. “Sir,” she continued, “I realize that this project, whatever it is, could be highly classified... and I apologize if I’m stepping into an area where I have no business. But you see, being that I am a Verdant citizen, I feel the need to bring my concerns to your attention.”

“And what concerns,” Julian asked, “are those, exactly?”

“That your Chief Operations Officer and your Chief Scientist are doing something behind your back,” Kris stated plainly. “Something that may or may not be good for Verdant... but that is probably not good for you, one way or the other, if it is being kept from you.”

“Just a few days ago,” Julian said, “you seemed to be more concerned with what was good for my Chief Operations Officer.”

“Don’t confuse professionalism for feelings,” Kris said. “I was trying to get information from Aaron... that’s my job.”

“And are you still on the job?”

“Yes, I am,” Kris replied. “And it is my *professional* opinion that you, the Chief Executive Officer of Verdant, should keep an eye on whatever Aaron and Dr. Silver are doing behind your back. I can only tell you that whatever it is, is not being coordinated with the President’s staff... so it doesn’t bode well for America. And if it isn’t being done for *America*, and it isn’t being done for *you* —”

“Okay, I get the picture,” Julian said. “I’ll... try to be a little more vigilant about the activities of my staff,” he said with a touch of sarcasm. Then, more seriously, he added, “Thank you for bringing it to my attention.”

“I’m just doing my job,” Kris stated. Then she laid a hand on Julian’s arm. “Despite the name of the person who signs my paycheck, I don’t want to see Verdant ruined. That won’t be good for anybody. Please believe that.”

Julian and Kris regarded each other silently; for a moment, all of the barriers dropped between them, and they were sure they were reading each other clearly and honestly. Then there was *aping*, and the lift doors opened before them, allowing the rest of the world to flood back in. Abruptly, the barriers were back up, and each of them assumed their professional demeanors again. Julian started out of the lift, angling towards the flight bays.

Kris stayed in the lift, and called out, “Thank you for your time, sir.”

Julian paused long enough to turn back her way. “Thankyou , Miss Fawkes.” Then he proceeded on to the bays. Kris let the lift doors close on her, and take her back up to the mainfloors.

As Julian proceeded on, he found his mind to be split: On one hand, he was considering Kris’ warning that Aaron and Jacqueline Silver were involved in some clandestine project of their own... and Kris had been right in her suspicion that he himself was unaware of the project, whatever it was. Of course, there were a lot of projects that Julian wasn’t directly aware of... that was why he had a Coo to handle those things, so he could run the satellite. But none of the projects in the sciences sections were supposed to be classified, or even politically sensitive, so he couldn’t think of a reason why Aaron couldn’t tell Kris about one of them. It may have been a simple misunderstanding on Kris or Aaron’s part, possibly prompted by the current political situation, and may in fact have been nothing at all. Nonetheless, that needed looking into.

And on the other hand, there was that last moment in the lift. Julian had gotten much more than a professional vibe from Kris at that moment: The message she had clearly sent to him was, “I want to help you.”

“I want to helpyou .” Yes, he’d heard it in the timbre of her voice, had felt it in her hand on his arm, had seen it in her eyes. And he was sure that, at the moment he’d seen it, he’d suddenly let his own guard down, and allowed her to see a side of him that had wanted that help.

That had wanted*her* .

He hadn’t intended to do that, for reasons that, if he wanted to, he could probably catalog for hours. First and foremost would probably be the old axiom about “sleeping with the enemy.” But maybe more to the point was the operative of that axiom, “sleeping with.” Since Mariel had passed away, Julian had steadfastly avoided any actions or activities that might have invited women to him, and he had politely or occasionally impolitely rebuffed any advances he received. And so far, he had never felt as if he was denying himself something he wanted or needed, or could do without. He was not interested in a relationship, and did not consider that he needed female companionship or sex. Most importantly, he did not want those feelings to cloud his judgment, or to affect his ability to function as Ceo. He’d simply channeled his energy into his job, ignored the encouraging entreaties of people like Reya Luis and his daughter, and allowed the idea of companionship to be locked away and forgotten.

So why, now, of all times, did he suddenly find himself thinking about Kris Fawkes as if she was the first woman he’d seen in decades? Could she possibly be that sexy and alluring? Were the circumstances of the Yellowstone crisis sowing doubt and confusion in him, leaving him unexpectedly open to female attraction? Or was it something that had changed in himself, something that left him needful of a woman’s hand? *Other* hand?

Why now?

So absorbed was he in his train of thought, that Julian almost missed the right turn he needed to make to reach the bay holding the*Aztlan* . He corrected his path at the last moment, glancing around with a touch of embarrassment to see if anyone had noticed. Then he zeroed in on the proper bay, and made for the RPI ship.

In truth, the*Aztlan* was not hard to find: Not only did its battered appearance match the camera footage he’d seen from CnC; but the crowd on onlookers that gawked and pointed at the ash-scoured ship was enough to get anyone’s passing attention. As Julian approached, a few of the members of the crowd

noticed him coming and stood aside to give him room to pass. The crowd thus parted like a reluctant wave, slowing him only slightly, as he approached two people who didn't seem to take notice of his arrival. One of those people was dressed in the distinctive uniform of an RPI pilot, and he was busy pointing out areas of the jet's fuselage and discussing the damage with the other man.

The other man was Walter Gordon, head of RPI. Gordon was tall and thin, not the overall build of an imposing man... in fact, with his suitcoat thrown casually over his shoulder, he looked more like a lanky engineer collaborating with the pilot on the progression of needed repairs. But Julian knew of the man's intensity, the quality that had propelled him to the top of his corporation in a relatively short span of years. This knowledge helped to focus Julian on the task at hand, the job of negotiating the renewal of freight deliveries, whilst dealing with Gordon's unspoken actual agenda: Permanent residence on Verdant. With little effort, he managed to push any errant thoughts about Kris Fawkes into a dark corner and forget about them.

It was Gordon's pilot who saw Julian first; and with a flicker of his eyes, alerted Gordon to his presence. Gordon turned, and smiled grimly when he saw Julian. He extended his hand first. "Ceo Lenz. Good to see you again."

"Hello, Walter," Julian shook his hand, and as he did so, took in the sight of the *Aztlan*. Unsurprisingly, it looked even worse in person than it had on camera. "Glad you made it here in one piece. Is it still flyable?"

"Yes," Gordon's pilot replied, "but just barely. The control systems are a mess... I wouldn't want to take it back into atmo like this. And the rockets took a beating from the extended climb we had to execute."

"Sorry to hear that," Julian said. "As always, you have access to our repair facilities as needed. We'll get you ship-shape again."

"Thanks," the pilot said, and almost immediately, started to fade into the shadow of his employer, who had put his suitcoat back on. With the jacket, added to his characteristic intensity, Gordon looked noticeably more impressive as a business leader. He was good at putting on airs, Julian knew from past experience; but he was equally determined not to allow Gordon's appearance to cow him; so he let Gordon put on his show, for all the good it would do him.

"We have a lot to talk about, Walter," Julian began, pressing the dominant role. "Why don't we go someplace where you can take a load off first? Have you booked a room anywhere?"

"Not yet," Gordon replied. "Figured I'd wait until I knew I'd be here. Think there's a room available in the Cumulus?"

"I'd bet on it," Julian replied, already well aware that many of Verdant's hotels had been caught without full occupation when Yellowstone had erupted. "Come on."

Gordon lifted a wrist, on which he wore a luggage bracelet, and tapped a control button. Nearby, a wheeled suitcase a meter tall and a half-meter on each hexagonal side, erupted with an attention-getting double-beep, a small amber light began flashing on its top, and it began to roll along, homing after Gordon's bracelet. As they walked along, the case trundling close behind, Julian mentioned almost off-hand, "By the way, we were monitoring the progress of the *El Capitan* at the same time we were monitoring you. Sounds like they took a bit of a beating from the ash layer, too, but they made it down okay."



“Yes, we were checking up on them, too,” Gordon nodded. “We ended up passing relatively close to each other along the way. I may—” he paused for a split-second, because he had been about to make a comment about following up on and possibly disciplining the pilot of that freighter, who had strayed from her established course and thereby endangered the *Aztlan* by that close pass... and as the words were coming out of his mouth, remembered that the *El Cap*’s pilot just happened to be Lenz’ daughter, Anise... so he mentally edited himself: “—have to take the *El Cap* out of service for awhile, if it suffered the same kind of damage we had on the way up. But it may be a few days before I see a full report.”

“Of course.” Julian noted the pause in Gordon’s comment, but gave no indication that it had made an impression on him. “Under the circumstances, grounding your piloted fleet only makes sense.”

“Mm,” Gordon nodded, pointedly not reacting to Julian’s specifying of his piloted ships, as opposed to his ballistic craft.

They reached a lift and took it to the mainfloor, debarking not far from the lobby of the Cumulus Hotel. From their vantage point, much of Verdant’s interior stretched out before them, and Gordon took it in with a thin smile. “Well,” he said presently, “it certainly looks peaceful enough in here. Lucky for you.”

“We’ve had to place Verdant residents and staff on level three conservation levels,” Julian told him. “Things tend to quiet down at level three... less overt activity, limited transportation usage. Not that that compares to having a volcano erupt in your back yard. But for a satellite, it’s significant.” He motioned towards the Cumulus entrance. “Let’s get you settled in.”

The Cumulus had an old-fashioned human concierge’s desk in the lobby, though when things were busy, the desk could be bypassed. At the time, though, there were no other visitors at the desk, so Julian and Gordon walked right up and arranged for a suite for Gordon. He was issued a room, which was programmed to his personal key, and the two men headed for the lifts to his floor.

“Do you want some time to settle in before we start our discussions?” Julian asked as the lift door opened.

“Tell you what,” Gordon said. “Why don’t you come on up. We’ll get things started right now.”

Julian nodded his acceptance, and joined Gordon and his autonomic luggage in the lift. They only went up two floors, before the lift opened. A distinct glowing line appeared on the floor, leading towards Gordon’s room, and they proceeded to follow it. The line ended at the door, and Gordon used his personal key to unlock the door. Julian allowed Gordon and his luggage to enter first, before following him in.

The suite, like most of the suites in Cumulus, was almost as large as most apartments in Verdant, and larger than many. It included a sitting room, a bedroom, bathroom, and a mini-kitchen complete with cooktop, stove, and cooler. In addition, the room sported a balcony that afforded an excellent view of Verdant’s vast interior... one of Cumulus’ most famous features. Gordon took it all in quickly, then continued on to the bedroom, removing his luggage bracelet and leaving it on a tabletop. The luggage rolled in after him, and parked itself near the bracelet, gave a double-beep, and extinguished its flashing light. Gordon left the bedroom and closed the door behind him, and crossed to the mini-kitchen, opening a cupboard and extracting two glasses.

“Water?” Gordon invited, as he filled one glass from a chilled dispenser.

“Thank you,” Julian replied, and Gordon handed him the first glass. He filled the second one, then stepped out of the mini-kitchen and over to the sofa that faced the balcony, and the incredible view. As he sat down on the sofa, Julian sat in a chair adjacent to him, allowing him to see Gordon to his left, and the view to his right.

For a moment, Gordon seemed happy to simply admire the view, glass in hand, legs crossed casually. He sighed lightly, a sign of contentment, and took a slow draught of the cold water. Then he looked at Julian, who was regarding him silently. At length, he said, “Do you realize what’s going on down there, right now?”

“We’ve all seen the news feeds,” Julian said simply.

“Of course,” Gordon shrugged. “But the newsfeeds don’t communicate the desperation down there... the panic. The sense that everything you knew, everything you had, is now over. And some that aren’t sure if they’re going to survive the night.” Julian wisely refrained from commenting, and instead took a draught from his water glass, and waited. After a moment, Gordon continued. “And that’s just in North America, right now. The ash cloud is reaching Europe now, and Africa, and they’re just starting to feel how we’ve felt for the past week.”

“It’s tragic,” Julian finally said. “And there was no way to predict it.”

“No, there wasn’t.” Gordon shook his head sadly. “It means we’re all going to have to change how we do things. In fact, to change what we do.”

“Up here,” Julian pointed out, “we’re already doing that.”

Gordon fixed him with a look. “Are you? Well, I have to say that things don’t look too chaotic from here. Actually, they look... quite calm. Like Verdant isn’t even slightly inconvenienced by the goings-on back on Earth.”

“Looks are deceiving,” Julian stated. “It ‘looks calm’ because people are cutting back on extraneous activities... conserving their resources. Resources we need to get from Earth, in order to survive. We’ve had restriction periods before. Residents here are very experienced in cutting back, using less, and avoiding unnecessary waste.” *Lessons that would have served Earth well a few times in the past*, he thought, but had the presence of mind not to say aloud. “That’s how we survive the lean times.”

“We were really hoping the ash cloud would not turn out to be this hard to penetrate,” Gordon said, effectively taking the conversation in another direction. “But after what my jet went through, and the *El Capitan* ... it’s obviously worse than we thought. Much worse. Our preliminary reports on the ballistic crash came through before I left.”

He paused for effect, prompting Julian to say, “Yes?”

“Flying through the ash is causing a lot of static electricity buildup,” Gordon explained. “The ballistic was hit by at least one lightning bolt. Some of our boys think as many as three direct strikes. Between that, and the blinding caused by the sensor bombardment, the thing went runaway before it reached five thousand meters. We’re lucky it didn’t kill somebody.”

He took another draught. “Julian, that means we’re going to have to harden the nav and control cores against lightning surges, as well as adding shielding to the sensors. That’s going to take time. And money.”

“You’ll be raising your rates,” Julian said, not phrasing it as a question.

“To an extent... we’ll have no choice,” Gordon replied with a shrug. “We’ll try to absorb some of it in other areas, but we have to cover our costs. That’s one of the reasons we need to improve our logistics operations at this end, you see.” (*And he finally gets to the object of his pretense*, Julian thought wryly.) “We’ve identified problems at our offices here, but without direct examination, I can’t possibly take effective action. I’m going to get into their systems, and straighten things out... however I need to do it.”

“Very conscientious,” Julian commented. “I’ll give you two weeks to get done.”

“I can’t guarantee I’ll have the problem straightened out in two weeks,” Gordon said plainly. “I don’t know how extensive they are, yet. Depending on the circumstances, I may have to do some personnel manipulation to get everything running properly. And we’ll probably have to hold deliveries until we get all of that straightened out.”

“Well, then, two weeks better be enough time to retrain your existing personnel to run your office, or hire new people from Verdant’s workforce, because I’m not authorizing any new citizenships in the meantime.”

“Julian, come on, even if I set up an I-V drip in the office and worked 24-7 to get it functioning—”

“No new citizenships includes you, by the way,” Julian interrupted him.

“Now, look!” Gordon blustered. “I’m trying to help you here! If I can’t get these problems fixed, we can’t resume deliveries!”

“Well, since Verdant manufactures a lot of the goods that Earth needs, I’ll make sure they are all well aware what company is preventing me from getting those goods to them.”

“Oh, so, you’re threatening me now?” Gordon tried to take on an indignant tone, which, from him, didn’t work at all. “You don’t think Earth will sympathize with me for having trouble flying through that ash?”

“They might not, when I tell them what’s really holding up their deliveries. Or do you expect them to react favorably to your obvious efforts to blackmail me?”

Gordon’s indignant look quickly shifted then, to be replaced with a knowing and calculated regard. “Hey, that’s just business. It’s called ‘scratching your back’. And you know what they say about my scratching your back...”

Gordon left the sentence hanging there, and took a drink. Julian nodded, and after a moment, stood up and walked over to the balcony.

“Yes, Walter, I know what you want,” Julian said slowly. In short, you want what billions of other human beings want right now: To be up here, instead of down there. Where you seem to think it’s safe.”

“Julian—”

“And why shouldn’t you think it’s safe?” Julian continued over him. “I mean, look at it!” He swept his hand outward at the interior of the satellite. “It’s so clean, and fresh, and green, and healthy... it’s *perfect*

. It's a new world, hovering out here, an everlasting haven from the rigors of Earth. At least... it sure looks that way.

"But people have limited vision. They think that what they see in front of them is everything there is that's important. And so they act according to what's happening right in front of them, whether or not that makes sense against the big picture. It's that thinking that's created an overpopulated, over-polluted and undernourished planet below us... and even after those problems became obvious, if those things weren't happening right in front of someone's nose, they had no trouble ignoring those problems, or even denying that the problems were there.

"People also have short memories. They don't learn from past events, from disasters. When an earthquake happens, everybody wails to the skies at how horrible the loss of life and property is. Once it stops, the very next thing people do... is rebuild the same earthquake-prone homes over the same fault-lines. Then they act surprised when the earthquake comes back, and again no one is prepared for the latest loss of life and property.

"Verdant looks like a stable, healthy environment," Julian continued. "But that's only because we work hard to make it look that way. In fact, we are incredibly unstable... we are literally constructed to be dependent on the planet Earth for the bulk of our supplies... the chemicals and raw materials we need to create and sustain life here. None of the satellites are independent! If we stop getting our supplies from Earth, we'll eventually choke to death... assuming we don't starve first... or freeze. And those supplies have to be carefully balanced against the number of people contained in the satellite. The more people you have, the shorter period your supplies last. The sooner we choke, or starve, or freeze."

Julian pointed a finger at Gordon. "But you don't see that. The grass is always greener in the other guys' lawn, and all you see outside is grass. And you, and seven billion others, feel you have a personal right to that grass, no matter what the consequences, because after all, everything looks great, and how bad could things possibly get up here?"

Throughout Julian's comments, Gordon sat still and quiet. He watched Julian carefully, taking notice that at no point did Julian raise his voice, gesture animatedly, or pace about like an enraged animal. He was trying to be cool and rational as he explained the situation on Verdant... which, in fact, he just wasn't buying. Verdant was huge... there was plenty of fresh air... cold water from a chilled tap... they didn't need for anything. Lenz was cooking up all of this "we are unstable" crap just to scare him. And he was about to say so, when Julian suddenly turned and approached him, leaning forward and putting his face right up into his own. Gordon could feel Julian's hot breath on his face. He looked mad enough to literally bite Gordon's nose off, and Gordon pushed back on the sofa cushions as far as he could, to put some space between him and Julian's fierce visage.

"If I thought for one minute," Julian growled menacingly, "that your selfish shenanigans designed con me into giving you space here was going to result in the loss of *just one life* already on this satellite... I'd throw you off this balcony with my own two hands, right now."

Julian continued to glare at Gordon for another few seconds, before finally straightening up and slowly walking back towards the balcony. Gordon sat there, genuinely rattled for the first time since he'd gotten off the *Aztlan*. His mouth worked, but he could not think of anything to say to counter Julian's unexpected attack.

Julian reached the balcony and turned back to face Gordon, just in time to see him give up on attempting a retort and close his mouth. "Walter, I allowed you to come here for one reason, and *one reason only*: To straighten out your freight deliveries. But I'm going to tell you this, and I'll tell you only once... if you

can't straighten out this problem... that's it. *RPI is cut off*. Verdant doesn't need you... there are plenty of other freight companies we can do business with. And we both know exactly how lucrative that business is.

"Now," Julian continued, "if you want to keep this *very lucrative* business relationship going, you will work out your problems up here *forthwith*. And if you can manage it particularly well, I might even see my way clear to... *scratch your back*, as well. But I am guaranteeing you *nothing*, Walter! And if I think for one minute that you're trying to pull a fast one on me, I'll put you back on that jet, and pitch it back at Earth, whether it's flight-worthy or not!"

Julian drained his glass, and put it down on a side table. Then he started for the door. "You have some unpacking... and some thinking... to do. I'd suggest you not waste any time doing either." Without a backward glance, Julian walked out the door, leaving it open to the hallway.

# 17: Assaults

## 12Aug2229

Julian was awakened about an hour earlier than usual, by the com on his bedstand. It took a moment for him to register the significance of the strange buzzing noise that was keeping him from sleeping, then to find the switch to the com. "Yes?"

*"It's Reya. You're needed in CnC, sir."*

Anytime Reya Luis used the title "sir" when addressing him, he knew, it meant something serious was indeed going on. "Be there as soon as I can."

~

There was a lot of background noise in CnC when Julian arrived. However, little of it came from the people manning the workstations. Julian could tell that most of it was coming from audio feeds, from multiple sources, all around the room.

Reya looked up from the workstation she was standing by, when he arrived. With a look, she signaled him to join her. Julian came around to the workstation and stood on the opposite side of the technician seated there. On his board was a video feed that showed a violent clash of forces, large crowds against armed police. A few glances at the background shots confirmed that the feed was coming from inside one of the satellites. "Where is this?"

"On board Fertile," Reya replied. "About an hour and a half ago, a ballistic rocket that was supposed to be full of supplies arrived there. Instead, it was stuffed to the gills with people. They overwhelmed the workers in Fertile's bays and spilled out into the satellite."

"They were *boarded*?" Julian said incredulously. It sounded like something out of an old pirate movie. "Do they know how many?"

“We’ve heard estimates of anywhere between five hundred and a few thousand,” Reya told him. “Nothing certain. Ceo Khaldun has ordered the boarders to be rounded up, to be sent back to Earth. Police engaged the boarders about an hour ago. I called you when they started firing on them.”

“Jesus Christ,” Julian muttered.

“That’s not the worst of it,” Reya said. “Another ballistic approached Qing soon afterward. But someone knew it was full of refugees, Beijing was alerted, and Chang was ordered to repel them. The ballistic was attacked by Qing’s fighters before it docked, and it was forced to de-orbit.”

Julian saw the rest on Reya’s face. “Oh, no...”

Reya nodded. “They’d suffered damage from the attack, and they didn’t have enough fuel for a controlled re-entry. It’s just reported by the media to have crash-landed. No chance of survivors.”

“Holy Mother of God.” Julian took a step back from the workstation, with his eyes still on the rioting on the screen. Then he stepped to another workstation, which showed a media team at the site of the crashed ballistic. It had apparently impacted in a forest, and columns of black smoke rose into the sky, to mix with the reddish ash at the top of the screen. Julian could see emergency crews intent on putting out the fires, but no evidence of life-saving crews. There was obviously no point.

Abruptly, he said, “What about Tranquil?”

As he headed for the workstations that monitored activity at the Tranquil satellite, Reya followed. “Nothing yet. They are at systems normal, level three conservation, just like us. Ah,” she added when they reached the workstation. “This is new.”

They both examined the data coming through the workstation: Ceo Volov on Tranquil had ordered a full lockdown on all scheduled incoming flights, including ballistics. A short statement that accompanied the data indicated that it was a precautionary measure.

When Julian saw it, he nodded. “Lock us down too, Reya. No incoming ballistics until further notice, effective immediately. No flights at all, including outgoing.”

“Baldur,” Reya called out to one of the workstation technicians, who immediately began to issue the order. Reya turned back to Julian. “What about anything already in the air?”

Julian considered only a moment. “Scramble three squads. We’ll do a field check of anything on its way up. If not satisfied, it gets de-orbited. Send that info to the ground, immediately.”

Julian started to move away, to check another workstation, when Reya said, “I can’t believe it’s come to this.”

Julian turned. “Afraid we don’t get the reality where they politely ask to invade.”

~

“Are they kidding?” Lem Carter goggled at his communications officer, who had pulled him aside and out of earshot of the passengers that were already aboard the passenger liner *Lincoln*. “Tell me they’re kidding. We’re supposed to leave in less than two hours, Ricky!”

“They’re not kidding, Captain,” Enrique Valentino shrugged. He handed the datapad over, with the message still on its display. “The order just came from CnC. Everything’s grounded, incoming and outgoing, until further notice.”

“Sweet Jesus,” Lem spat, but softly, so as not to alert any nearby passengers, and glanced around the blended-winged liner’s deck with a practiced air of calm. Some of them had come on board early, in order to settle into their coaches. A modern passenger liner coach could be as comfortable, though obviously not as large, as many of the simpler hotels and hostels on Verdant, and passengers often liked to come in early to beat the crowds, and take a nap, or break out some of their working or entertainment gear. Enrique had caught up to Lem on deck two, where he had been checking up on the final adjustments to a coach wallscreen that had been due for replacement, and had finally shown up the day before. A few of the passengers had also been watching the work on the screen, people often being fascinated by watching other people work, and Lem had been engaged in casual conversation with some of them when Enrique had arrived.

Now, in the corridor between coaches, Lem’s eyes searched the bulkheads, as if hoping to find an answer scrawled somewhere on the walls. Then he handed the datapad back to Enrique and put his hands on his hips. “Fine,” he sighed. “You call Global and inform them we’re locked down. After you’re done with Global, send out a general textcast to everyone on our passenger list. Inform them that our scheduled flight has been cancelled due to... uh... complications caused by the Yellowstone Caldera. While you’re doing that, I’ll inform the passengers that are here.”

“Yessir,” Enrique nodded, and headed back for the communications hub of the *Lincoln*.

Lem, in turn, headed back to the bridge, muttering, “Something tells me this day is not going to go well.”

~

Calvin was awakened about an hour earlier than usual, by his wife. Erin had poked her head into the master bedroom and awakened Maria, who in turn awoke Calvin.

“You guys have to hear the news,” Erin was saying. “There’s fighting and shooting on Fertile, and Qing forced an incoming ship full of refugees to return to Earth, where they crashed!”

“What!” Calvin was awake instantly. “Fighting...” He stumbled out of bed, almost tripping over the blanket and sprawling across the floor.

“Honey, slow down!” Maria cautioned him. Then, to Erin, “Have they said anything about Verdant?”

“Well, nothing about fighting,” Erin replied. “But they’ve suspended all air traffic until further notice. I guess so no ships full of refugees can get in.”

“What about Tranquil?” Calvin asked, grabbing a pair of trousers, and some fresh underwear, and heading for the bathroom.

“Same as Verdant, I think,” Erin replied.

“Good...” Calvin was thinking furiously as he dressed, half-considering the urge to shave, and dismissing it as quickly. The research and calculations he’d obtained regarding the laser-spiked defensive field (not quite a “force field,” even he had to admit, but as close as anyone was likely to get), with Valeria and Leon’s help, had gotten off to a good start, but still needed a lot of development. Unfortunately, now it

sounded like they may be out of time, and Calvin did not want to have to approach Ceo Lenz when it was all over, only then to present him with what might turn out to be a defensive solution. Finished or not, he had to tell him now.

He realized at that moment that Maria had appeared in the bathroom doorway. “Where are you going?” she asked.

“Have to go to CnC,” Calvin told her. “And tell Lenz about the defensive field—”

“I don’t think you should go,” Maria said quickly. “What if people come aboard Verdant they way they did on Fertile? What if there’s fighting?”

“CnC has suspended traffic,” Calvin replied. “No one can get in.”

“Well... what if they’re armed?”

“Then we have bigger problems than I can handle,” Calvin said grimly. “Where’s my case?”

He charged out of the bedroom, past his wife and his wide-eyed daughter. Erin watched him as he darted into the study, then turned back to Maria. “Mom?”

“It’s okay, baby,” Maria said, just as Calvin came out of the study.

“Don’t worry... Verdant is still safe!” he called back to them. “I’ll be back as soon as I can!”

“Daddy—”

“Don’t worry! I’ll see you soon!” Calvin whipped the door open, and pulled it shut as he ran out. After a moment, Maria moved forward and locked the door.

Then she turned to her daughter. “Let’s see what else the news says.”

~

Hunter and Goldie were the third and fourth of the Wasps that dropped out of the Verdant’s bays, followed not long afterward by two more. The first two were already angling sunward, to take up their defensive positions along the trailing side of Verdant’s orbit. The last two would be moving to the leading side of Verdant’s orbit. Hunter and Goldie headed Earthward, to stand between the planet and Verdant.

“Judging by my scanners,” Goldie announced, “it looks like Tranquil has also deployed Wasps.”

“Good thing for them,” Hunter stated. “Probably the only thing that will keep us both from getting boarded so easily. But it won’t last.”

Goldie looked over her shoulder, as if she could see her partner in his Wasp. “You really think we’ll end up in a shooting match up here?”

“I can’t see how we won’t,” Hunter replied. “Sooner or later, they’re gonna decide that they want to be up here. And sooner or later, they’re gonna figure out that the only way to do it will be to take us out. That means fighter escorts. That means a shooting match.”



Goldie did not respond. She knew that, in a one-on-one match, the Wasp crews would have the distinct advantage of familiarity with orbital combat in orbit-optimized fighters that the ground-based pilots would lack. Still, that didn't mean she expected they'd have no losses. And there was no reason to expect the ground to send only enough fighters for one-on-one matching.

Instead, she examined her scanners. "I read no incoming traffic," she said.

Hunter nodded. "Let's hope it stays that way, then."

"Check that," Goldie said suddenly, as she was resetting her scanners to view a wider area. "I have a Nautilus inbound for Verdant. It's coming down from outer orbit, though."

"Double-check their ID," Hunter said, switching his scanners as well. "Tronic and verbal." He saw the short-range ship on his monitors, too, and his data included a broadcast registry code that indicated it had come from Verdant. He got busy querying Verdant for flight data, while over the com Goldie challenged the ship verbally.

They both heard the response. *"This is Naut-vee-three-six, pilot Lexy Carras, ident UNAF-449437245 assigned to Verdant satellite. Our flight is on the schedule for this morning."*

"I confirm pilot identity," Goldie said over the com.

"And I confirm the assignment," Hunter stated. "Proceed straight to the bays, Naut-vee-three-six... do not stop for sightseeing. Confirm."

*"Confirmed,"* came the reply. *"Have a good shift."*

"If I don't have to shoot at anybody," Hunter commented drily.

As the Nautilus proceeded for the docking bays, Goldie examined its heading, and used her scanners to backtrack it. After a moment, she said, "Hunter, Lexy just took that tug out to the same heading we used to drop off and pick up that test-bed the other day."

"Another test? What about it?"

"I just scanned back on Lexy's projected return course. I don't see any sign of a test-bed up there."

"So she's coming back with it," Hunter suggested.

"Not according to my scans. They indicate the Naut wasn't carrying."

Hunter considered a moment. Then he changed his frequency. "Control, Wasp three requesting confirmation of scheduled run of Naut-vee-three-six. What is its payload and mission?"

There was a perceptible delay before the response came in. *"Wasp three, Control: Naut-vee-three-six's mission is classified com silence. Do not discuss over the air."*

"Control, Wasp three requests override, code two priority." Code two was a suspicion of a military threat.

"Hunter—" Goldie started, but Control came back on the line.

*“Request denied, Wasp three. Naut-vee-three-six is in sight of the bay, and systems are nominal.”*

That was supposed to mean that someone at the bay could see the tug, and was declaring that there was nothing visually unusual about it. That would include a payload in its arms that wasn't supposed to be there, or a missing payload where one was expected. Hunter imagined a number of possibilities: The Nautilus was returning with the right payload, and Goldie's scanners hadn't picked it up; it was returning with a dummy payload; or it had no payload, and somehow Goldie's scanners couldn't pick up the payload it had dropped off. It was a bit of a mystery... but Hunter wasn't really getting the vibe that it was a threat. And after the last few days of reprimands, he decided finally not to press his luck.

“It's all yours, Control,” Hunter said finally. “Wasp three, out.”

“Okay,” Goldie came back online. “Even I have to admit, that was a bit weird.”

“Yeah,” Hunter agreed. “Let's keep an eye on that track... just in case.”

“Just in case what?” Goldie asked. “You think something from Earth's going to attack us from above?”

“No...” Hunter wasn't sure what to say, as he couldn't pin down what he thought. “Just keep an eye on it, that's all.”

## 18: Discussions

When Calvin reached CnC, he immediately saw Ceo Lenz in an earnest conversation with Kris Fawkes. He vaguely remembered her talking to him the other day, as he was coming out of the sciences section. But for the life of him, he couldn't remember what the subject had been... he had been that tired at the time.

At the moment, however, their conversation sounded like it was related to the order to suspend flights. As he approached, he could hear more of the conversation between them.

“President Lambert's office is being inundated with calls from citizens who were scheduled to go home today and tomorrow,” Kris was saying. “These people have loved ones and business contacts on Earth, depending on them, and they cannot afford to stay on Verdant longer than necessary!”

“I empathize with them,” Julian replied calmly. “However, the situation out there is escalating into dangerous territory. I'm sure those people wouldn't rather leave now and be shot down in a misunderstanding, would they?”

“Obviously, no one wants that. But if something like that happened, the President is prepared to deal with the guilty parties.”

“Even if it turns out to be American citizens?”

“Who said Americans are going to attack Americans?”

“Kris, that’s exactly how dangerous the situation is. Anyone could end up shooting at anything! I’m trying to keep the peace, and that means keeping travelers out of harm’s way.”

“But for how long?”

“I wish I could tell you.”

“The President will not consider that a satisfactory answer.”

“He’ll just have to live with dissatisfaction.”

Despite the adversarial tone of the conversation, Calvin noticed that the two of them seemed to be able to discuss it without antagonizing each other, which he considered significant. . . although he wasn’t sure why. Finally, he cleared his throat for attention. Julian noticed him first, and Kris turned when Julian focused his attention on him.

“Ceo,” Calvin began, “I need to speak to you.” He decided to be discrete, with an American diplomat standing nearby. “It’s about the project you put me on. . . I may have good news to give you.”

He’d hoped the Ceo would use his interruption to break off his conversation with Kris Fawkes and take him into his office. Instead, Julian said, “Stick around, Doctor,” and used the interruption to break off his confrontation with Kris and check on one of the workstations. Kris, taken by surprise by Julian’s abruptly breaking off their discussion, was also left standing as Julian moved away. She looked after Julian for an extended moment, then turned away, clearly not sure what to do next. Momentarily, her eyes came to rest on Calvin.

The moment their eyes connected, Calvin remembered their conversation in the hallway of the sciences section. She had asked him about a supposedly secretive freight project being handled by Dr. Silver under Aaron Hardy, which he’d known nothing about. She’d also asked what he’d been working on, himself, and he had evaded her question, downplaying his work and suggesting it was going nowhere (which, at the time, it was). He realized it might occur to Kris that he was waiting to talk to Ceo Lenz about the same project now. . . and given their tense situation, he wasn’t sure how much he should reveal to her about it before he spoke to the Ceo.

At that moment, Kris smiled. “It’s all right, Doctor: If it’s something you’d rather not discuss in front of an American diplomat, I understand.”

Calvin eyed her with barely-concealed shock. *What was this woman... clairvoyant?* He fought the urge to simply retreat from her, and found his voice. “Well. . . not until I speak to the Ceo first, at least.” Then he turned away and tried to casually move to a nearby workstation and pretend to be interested in the readings thereupon.

Julian did not see their exchange, as he was already looking over a tactical workstation beside Reya Luis. They were both glad to see that there were apparently no ground-based flights, manned or ballistic, entering orbit around Verdant, Tranquil or Fertile. However, there seemed to be problems with the monitors surrounding Qing, which had also gone silent. They were examining what data they had, trying to guess at what might be the problem.

“What else is happening on the ground?” Julian asked.

“Apparently, riots in almost half the spaceports on Earth,” Reya replied. “People are trying to get onto

flights to the satellites... but since most of them are grounded by the ash cover, or by our lockdowns, you've got a lot of angry people crammed together down there."

"Desperate ones, too, if they're crawling into ballistics to get up here," Julian added.

"At least we don't have to worry about the catapults, too," Reya muttered as an aside. "It would suck to have them lobbing rocks at us in the middle of all this."

Julian nodded absently. The catapults were the mass-drivers at the lunar mining colonies, used to shoot raw materials for building to the satellites. The catapults were essentially fixed machines, with minimal aiming capability: therefore, they generally operated only at periods when they were optimally aligned to the satellites, making sure their payloads would be targeted at the recovery nets set up near each satellite. At present, the Moon was presently outside of that launch window, so, even if they were so inclined, the crews there would not be able to bombard the satellites from above.

Julian reached over and adjusted some of the workstation settings, over the shoulder of the technician stationed there. "What's Qing playing at? Are they deliberately blocking their signals?"

"Maybe just to us," Reya suggested. "Beijing may be communicating with them just fine."

"God, Hirohito," Julian muttered, "don't let it happen."

"Does Chang have much of a choice?" Reya asked.

"He's always got a choice," Julian replied. "He's the Ceo, isn't he? He's up here, isn't he?"

"But he's probably got plenty of party members watching his every move," Reya pointed out. "If China wants in... there's probably not much he can do about it."

"Well, he better think of something—"

Julian's comment was interrupted by a technician suddenly at his side. "Ceo, I have Dr. Silver asking for you. She's looking for authorization to send a Nautilus out."

"What the Hell for... right now?" Julian glared at the technician, then followed her to her workstation, passing adjacent to Kris and Calvin. He reached the workstation and jabbed at the com. "What is it, Doctor?"

"Ceo, I have a valuable test-bed outside that I need to have retrieved," Dr. Silver said. "Chiu tells me the Nautilus we had scheduled is grounded—"

"Everything is grounded, Doctor," Julian stated firmly. "You may have heard that there have been some security problems this morning?"

"Of course, sir," Silver replied. "However, that test-bed is a vital part of a project we've been running, and we can't afford to lose its data. It was sent out before your lockdown order... we're only asking to retrieve it!"

"Doctor, the risk to—"

"If you examine its coordinates," Silver said over him, "you'll see that the test-bed is in upper orbit. It is

outside of your security area. It can be retrieved without presenting a risk to your fighters. Please, sir, it's very important that—"

"I'll see what I can do," Julian said finally, stabbing the com off. He started to turn to the technician, when he felt Reya's hand on his arm.

"Julian, Wasp three just called in. Three and four report a signal that just appeared, where there was none a minute ago. The coordinates correspond to Silver's test-bed. Hunter is requesting a code two priority override of a classified status to investigate."

"Classified?" Julian repeated. "What's classified about it?"

"I don't know—"

"Find out. And find Aaron. Confirm he knows about that thing. Are the skies still clear?"

"Yes," Reya replied.

"All right, go." Reya turned and headed away, while Julian reconsidered his orders to the technician. "Have the bays prepare a Nautilus to get Silver's test-bed, but give it express orders to proceed only with a Wasp escort. It is to pick up the test-bed, but not to manipulate it in any way, and return it to the bays."

"Yessir," the technician nodded.

Julian then moved back to the tactical station. After checking the board, he chose the Wasps stationed at the leeward side of orbit, and hit the com. "Wasp six, CnC. You are ordered to leave station and accompany a Nautilus. Monitor while they pick up the test-bed. Make sure that the Nautilus recovers it *only*, and does not manipulate it in any way. Wasp five, remain on station. Confirm orders."

*"CnC, Wasp six. Orders confirmed. On my way to the bay."*

*"CnC, Wasp five, remaining on station."*

Reya appeared at Julian's side. "Aaron's already on his way here."

"Good. What did you find out about the test-bed?"

"Nothing yet," Reya replied. "Dr. Silver hasn't responded to my call."

"I just talked to her!"

"I know," Reya said. "I can send security to fetch her."

"Do that. I want her up here right now. Even if she has to be hogtied and wheeled in on a hand-truck."

"Hi." Julian and Reya turned to see Aaron beside them. He looked down at Reya. "I got your message. What's going on? I mean, besides the obvious."

"Come on," Julian ordered. As he turned, he called out, "Dr. Rios! Miss Fawkes! Accompany us, please." Then he strode out of CnC, past the security detail standing by the entrance, and veered

towards the small conference room just around the corner. Calvin and Kris immediately fell in step behind Aaron, who threw Kris a quick glance before proceeding after them. Reya followed close behind Julian, issuing orders through her com to have Dr. Silver immediately escorted to CnC, and adding coded numbers that Kris had never before heard, but she imagined Lenz and Hardy had. Julian entered the conference room and proceeded around the table, to take a seat at its head. He waited patiently for everyone to enter and seat themselves. Calvin, being the last to enter, closed the door behind them and took his seat.

“To begin with,” Julian started when they were all seated, “I asked Miss Fawkes to join us in here, because I want to be clear that we are not discussing actions which would be considered to be aggressive or damaging against any other political group... most especially the United States.” He looked directly at Kris, to make sure she accepted his statement. Kris nodded her understanding, and with a smile managed to communicate an appreciation for his attitude and candor, at the same time.

Julian nodded back. “Good. Secondly, we need to discuss matters of security. To begin, Dr. Rios: You said you *may* have some good news about our project?”

Calvin nodded curtly, and spared Kris a quick glance... but Julian had made it clear that he didn’t intend to hide anything from her, so he suppressed the need to be discrete. “Yes, sir. With the help of some of the people down in sciences, we’ve come up with an idea that might allow us to construct a defensive system powerful enough to destroy incoming missiles and ballistics. It’s just a theory, but it works in the simulations.”

“The force field?” Reya stated. “You mean it can work?”

“Well, it’s not a force field *per se*,” Calvin clarified to Reya, then turned back to face Julian. “Tranquil’s force field didn’t work, because they couldn’t find enough energy to power it. That’s just impossible for us to accomplish. But what you can do, sir, is to use a field as a combination of tools. The first tool would be a detection array that would pinpoint objects passing through it. Then you use the field to aggregate a surplus of power in that one location, directed there long enough to destroy whatever was passing through it at that moment.”

“Surplus power?” Aaron repeated. “From what?”

“From medium-power particle beams,” Calvin replied. “The beams will direct a discharge into that region, and they can do it fast enough to get the beam there while the incoming missile is still in the field. The beam’s power doesn’t directly hit the incoming, because it’s too hard to aim... instead, it pours its energy into the field at that local region, and the field, with the extra energy, does the job of frying the missile.”

Calvin paused to take in the expressions around the table. Julian had the look of a man busy calculating the defensive capabilities of the system, and Reya was slowly nodding as if she was thinking along the same lines, and perhaps had already decided it was a workable system. Aaron’s eyes widened as he seemingly contemplated the logistics of such an involved but important project. Kris Fawkes’ face was perhaps the most open of all, giving him a look that suggested she thought the idea was brilliant.

In fact, that was exactly what Kris was thinking, with a caveat: *If it worked*. She could see that the others seemed to regard Calvin’s report as positive news, but she was most interested in Aaron Hardy. Although the look on his face was distinctly positive, she could see another facet to it: He was reflecting on this new information in relation to something else, and it seemed to bring a measure of additional relief to him. She immediately thought of the mysterious freight project, and suspected he believed this

development would buy his project some time, and possibly provide some additional cover for its completion.

She knew she was on the right track a second later, when Aaron looked her way... then, as quickly, he looked away from her, trying visibly to mask his expression from the rest of the room. The look he had given her was all she needed to know... she had read him like a book.

In the meantime, Julian had started speaking. "You've tested this in simulation columns? What will we need to build a workable prototype?"

"I was in the process of developing that," Calvin explained, "but I hadn't finished it yet. Considering the situation, I thought it best not to wait any longer to tell you."

"Agreed," Julian said, turning to Aaron. Before he spoke, however, the door to the conference room opened. Everyone looked up to see Dr. Silver, backed by two security women, enter the room. Julian nodded at the security team, and they remained outside and closed the door before them.

"I'm sorry I didn't get your earlier message, Ceo," Dr. Silver explained as she walked in. "I was in a clean room. What's this about?"

"Sit down, Doctor," Julian invited. "We were just discussing a defensive system that Dr. Rios has been researching, with members of your department."

"Yes, I'm aware of his research," Silver nodded, sitting down next to Aaron.

"Good," Julian said, "because I think it's time to take the next step. Aaron, I'm hereby ordering every resource in the sciences sections to be devoted to giving us a working prototype of the Doctor's defensive system, asap."

Dr. Silver immediately turned to exchange glances with Aaron, and Kris examined both of them carefully. There was every reason to expect them to be reluctant to carry out something that would have such an extensive impact on the sciences department, and their expressions made that clear. But there was more, from both of them, but especially from Aaron: There was at least one project that neither of them wanted to halt.

Julian looked to them impatiently. "Is there a problem?"

In response, Aaron and Dr. Silver turned to Julian. "Julian," Aaron started, "certainly we can divert significant resources to this defensive system, but to interrupt every—"

"Aaron, you might not have noticed," Julian interrupted him. "But Fertile has been boarded, and Qing deflected a boarding attempt. The shipload of refugees from the Qing attempt crash-landed on Earth, killing all aboard, and there's armed fighting aboard Fertile right now. We no longer have the luxury of time! We need everything on this, and I mean everything!"

"But Julian... it's just not feasible..." Aaron protested, trying to find stronger words. Dr. Silver, seeing her chief faltering, decided to jump in.

"Ceo, some of the projects we're in the middle of will be ruined if they're simply halted in mid-stream. We're talking about a significant waste of our limited resources, not to mention finances, if they have to be restarted later..."

As Dr. Silver spoke, Julian briefly scanned the others at the table... and noticed at that moment that Kris Fawkes was giving him a hard look. Remaining silent and barely moving, using only her flashing eyes, she indicated Aaron and Silver, and impressed upon him the significance of their resistance to his order. That was all Julian needed to remind him of their conversation before he'd met Gordon at the *Aztlan*.

"All right," Julian broke in, interrupting Dr. Silver's discussion, and taking her and Aaron in with a withering look. "Aaron, I don't tell you how to do your job, and I give you plenty of leeway as regards to your staff. But you two are avoiding telling me about something, and I've had enough. What are you two keeping from me?" Something else occurred to him. "And does it have something to do with that test-bed you were so adamant about recovering, Doctor?"

After a moment, Dr. Silver dropped her head perceptively, then turned to Aaron, leaving it up to her chief to explain. Aaron took in her expression, and the angry look on his superior's face, and let a sigh of air escape through his nose. "Well, all right: Yes, we've been working on a project that we've been keeping quiet." He put his hands up defensively. "But it wasn't because it was that secret... really. It was just, the nature of this project, it's... out of the pale, so to speak, and we didn't want to bring it to anyone's attention before—"

"Aaron, what are you talking about?" Julian insisted.

Aaron mentally switched gears in his explanation. "It's a series of experiments, designed to handle freight differently. To... *totransport* it... differently. And change the nature of our freight relationship with Earth." He glanced around the conference table, to see if anyone was following his explanation. Only Dr. Silver watched him dispassionately, everyone else looked on in confusion. "We've been experimenting with a method of using quantum cataloging systems to disassemble the component atoms of an object and translate that into a communications stream. We would then send that communications stream to a second location and use it to guide the assembly of component atoms, recreating the original object in its literal form at the second location."

The table was quiet. Calvin, the next most scientifically-literate person in the room after Dr. Silver, and probably more than Aaron, was the first to speak: "You've got to be kidding."

Reya piped up next. "What the hell did all that mean?"

And finally, Julian: "Are you talking about what I think you're talking about?"

"Which is what?" Reya asked anyone in the room to clarify.

"Matter-energy transporters," Calvin said plainly.

"Transporters?" Reya said so loudly her voice almost broke. "*Brane-Boy stuff?*"

In response, Aaron threw his hands up. "See? *This* is why we were keeping it quiet! We *knew* there'd be this reaction! But the fact of the matter is, we're making significant progress on it!"

"You are?" Julian gaped. "Dr. Silver?"

"Yes," she nodded, shrugging as if it was really no big deal. "And yes, by the way, that's what the test-bed was for. We've managed to break down the components of the test-bed, and reassemble it at another location... then to return it to its original location, intact."



“But that’s just the beginning,” Aaron added. “You may not realize it, but if we can translate an object into a communications stream... we can potentially store that stream, make copies of it, and recreate it whenever we need to! All we’d need is the raw atomic material to assemble from! And the same system would allow us to break down and more completely recycle our used and waste elements, making all of Verdant more efficient—”

“We’re wasting valuable resources,” Reya complained, “on Brane-Boy transporters.”

“Julian, there’s something else,” Aaron went on. “This might have defensive implications, as well. Think about it: If we can use it to transport a physical object from one place to another, we might be able to send out objects that will prematurely detonate incoming missiles.” He thought about what he had just said a minute more. “Why, we might even be able to send—”

“*Hold on!*” Reya shouted. “We’re not going to ‘send’ anything anywhere!”

“No, we’re not,” Julian agreed before Aaron could go on. He had also picked up on what Aaron was about to suggest: That this transport system might be able to send bombs and missiles of its own. Sometimes, he reflected, Aaron seemed to allow his analytical mind simply outrun his practical mind, like a child intent on eating every piece of candy in a store at once. And in front of an American diplomat... he looked over at Kris Fawkes. Any moment, he expected her to leave the room, for the express purpose of immediately contacting President Lambert and describing to him this potential threat to national security... which, after all, was her job to do.

To his surprise, Kris remained seated, and levelly returned his gaze. It took Julian only a moment to realize the significance of that.

He turned to his Coo. “Aaron, Dr. Silver, there might be potential in this... transporter thing. But we simply don’t have the time to explore it now. As of this moment, *it’s over*. Understand?” Dr. Silver remained silent. Aaron started to speak, but a look from Julian cowed him. “Then take Dr. Rios’ research, and get busy making a workable prototype of his defensive system. Go with them, Dr. Rios, and call in any and every resource and staff you need, on my direct authorization. *Go*.”

Calvin was on his feet first, followed by Aaron, then Dr. Silver. Together, they hurried out of the conference room, closing the door behind them, leaving Julian, Reya and Kris in the room. Their symbolic positions at the table were clear, Reya seated to Julian’s left, Kris seated on the far end of the table from them both.

Julian turned to Reya. “Reya, I’ll join you in CnC shortly.”

Reya looked to Julian, then to Kris, and back. She reflected that, a few days ago, she might have been glad to see her commander showing interest in getting Kris alone for a moment. But this wasn’t the moment she envisioned. Slowly, she rose from her chair, and vacated the room without a backward glance.

When the door closed, Kris stood up. Slowly she walked around the table towards Julian, who also stood as she approached. Julian started to speak, but Kris started before him.

“I may have mentioned,” she said, “that I’m a Verdant resident. As such, I have a vested interest in the well-being of this satellite... my home.” She stopped next to Julian, and casually leaned against the edge of the conference table, leaving her looking up at Julian. “I am also highly trained in the ability to...

understand people. It is my personal and professional opinion that you would not take an offensive stance against the United States of America without direct provocation, and that you would not allow offensive weapons to be developed on Verdant. You do this out of a sense of honor and righteousness, and because you do not want Verdant to be considered an enemy.

“I want you to know,” Kris continued, “that I understand what you are doing. I’m on your side... we’re on the same side,” she amended. She then reached out and put a hand on Julian’s arm. “And I would consider it part of my sense of honor and righteousness to keep you informed of any and all actions taken by the United States government that might undermine your efforts. I want you to understand what I am doing, as well.”

Her eyes bored up into Julian’s, who returned her gaze evenly. She could see something deep in there, a spark of... a desire for... openness, perhaps? But before she could nail it down, a look of skepticism seemed to slide over it, masking it away, and Julian said, “It would be a good idea for both of us if you went to your President and made your report, Miss Fawkes.”

After a moment, Kris allowed her hand to slip down from Julian’s arm, which was like sliding off of granite. Then she stood up, bringing her eyes almost level to Julian’s, and nodded. Without another word, she proceeded across the room, opened the door, and left the conference room. She left the door open, making it easy for Julian to listen to her receding footsteps down the corridor.

## 19: Re-prioritizing

Calvin, Aaron and Dr. Silver arrived in a common area of the sciences section where Silver, along the way over, had called all section heads and ordered them to assemble. The room, the size of a large cafeteria (and, in fact, was often used as an eating hall), was now full of section and department heads, their project leaders, and some of their assistants.

Calvin was almost surprised to see so many of her people assembled in one place... it made for an impressive show of scientific force. Sometimes it was good to see how much of a body the sciences represented on Verdant, it helped to dispel the occasional feeling that the sciences were sometimes neglected. At the same time, he almost wished he could not be seen by so many of them. Thanks to his research, quite a lot of them were going to have to abandon their existing projects for new ones. Some of them were sure not to be happy about it, and enough people here knew about Calvin’s work to know exactly who they could blame for it. He just hoped they wouldn’t be too hard on him, and band together for the cause of protecting Verdant, as opposed to assigning blame for their work woes.

Chiu was there at the common area entrance as they walked up, and fell in step beside Silver, on the opposite side of her from Aaron, leaving Calvin trailing behind them all. “Everyone’s here, with the exceptions of Harris and Bligh, who’re still locked in the clean room until thirteen-hundred.”

“That’s okay,” Dr. Silver nodded. “We’ll make do without them.”

“I’ll address the troops, if you don’t mind,” Aaron announced, and found a chair to stand on so he could be seen by everyone in the room. Dr. Silver moved to a point beside him, and Chiu stood beside her. Calvin loitered a few paces away, trying not to look too conspicuous (as well as a former video celebrity could). While they waited for Aaron to get everyone’s attention, and the conversation level in the room to

die down, Silver leaned over and spoke to Chiu in a voice pitched for only him to hear. After a moment, Chiu nodded, looked about the room, then moved off into the crowd. Chiu's absence managed to make Calvin even more conspicuous, and after the fact registered on him, he simply sighed and accepted his fate.

"Everyone," Aaron finally started, "it's no secret that we're in the middle of a crisis right now. Things are serious on many of the other satellites, and there's a great concern that they could spread to Verdant. Therefore, Ceo Lenz has ordered us to table all existing projects and devote our full resources on producing a working prototype of a defensive system for the satellite."

There was the expected rumble of upset scientists and engineers around the room, and Aaron allowed it a few seconds to take its course, before holding up a hand to silence the crowd. "We all realize this is going to jeopardize projects, and be an inconvenience for just about everyone here. However, we must devote ourselves to the safety of our friends and loved ones on Verdant. And we don't have the time to debate, discuss or negotiate it. Doctor Silver is preparing assignments for you and your sections, so coordinate with her and her assistant, Mr. Chiu. Let's get this done, and hopefully soon, this crisis will be over, and we can all get back to our regularly-scheduled jobs," he said, attempting a bit of levity with his last words, which largely fell flat. "Thank you," he concluded, and stepped down amid a growing volume of grumblings and confused questions.

While Aaron confronted a few of the engineers and scientists, doing his best to placate them in their hour of disappointment or frustration, Dr. Silver stood near the table, taking each department head in turn and assigning projects based on the notes she had from Calvin's research. She motioned Calvin over to her side, and asked him questions about various areas, in order to find out where he had made reasonable progress, and where he was still lacking in enough information to proceed, and making assignments to her staff accordingly. Calvin noticed a few of the scientists and engineers taking honest interest and outright enthusiasm in their new assignments, especially after Calvin or Dr. Silver explained the purpose of the assignment. Others seemed to reflect doubt, displeasure or outright hostility—a few of them threw angry glances at Calvin—and he was glad to see Silver giving major parts of the assignments to very few of those people.

But overall, he was very impressed at the way Silver handled her charges, issuing orders, asking Calvin for clarifications, and knowing how to speak to each person in turn to get the best possible response from them, and send them on their way. In his video production days, Calvin had been known as an amiable, easy-going guy to work for or with, and he had cultivated that "nice guy" persona to his advantage. Jacqueline Silver, easily as photogenic as he was, could have gone far with such a friendly and easy-going personality... but in contrast to him, she was very calculating and businesslike, emotionless and balanced... listening to her was like listening to a teacher reading an English assignment. All the same, she seemed to have the same command and respect of her people that Calvin had ever had, and as much control of her situation and her surroundings. Calvin almost had the sense that, as she spoke to this engineer in front of her, she was aware of the scientist exactly eleven people back in line, and already knew exactly what she would be saying to her when it was her turn.

As assignments were handed out, some of the personnel assembled into sub-groups in the common area, before heading off to their respective sections. There were a number of such groups left when Dr. Silver had finished issuing assignments. She then turned to Calvin as she examined her datapad. "Doctor, I'm concerned about my people in lab twenty... they'll be working out optimum field emitter placements?"

Calvin looked at her pad, and the notes she had taken. "Yes, I remember."

“I’m not sure they understand the intent behind the polarity flow intersections, and that could result in emitters that won’t hold their shape under load. I’d appreciate it if you could go down and walk through it with them, to make sure they’re thinking in the right direction.”

“Of course,” Calvin nodded. “Lab twenty?” Silver nodded, and he headed off in that direction.

Dr. Silver waited until Calvin was out of site of the common area, before turning about and finding Chiu in the room. She nodded to him, and in response, he signaled another scientist in the common area, who approached Silver. Another engineer was also approaching Silver, ostensibly with a question, but Chiu intercepted him and allowed the other scientist to approach Silver alone.

“Valeria,” Silver greeted her when she was close by.

“Yes, Jacqueline... you have an assignment for me?”

“I do,” she said, turning her datapad so Valeria could read it. “First of all, I need you to make sure your coordinate calculations are recorded in the database before we back it up.”

“Already done, ma’am.”

“Good. Then I want you to get started on these new amplification equations, here. I’ll send them to your lab directly. Concentrate on finding the R-Phi and H-sub-Y variables, the rest is pretty much satisfactory.”

Valeria looked at the equations as Silver spoke to her. After a moment, her brows knitted. “Pardon me, but these look like they’re part of the freight test-bed project. But we’re tabling that, right?”

“Yes, we are,” Silver replied. “However, after examining the equations, I believe there are some parallels here that will apply to the defensive system.”

“Where? I don’t see—”

“We’ll have to table that discussion for later, as well,” Silver cut her off. “No time right now. Trust me, we can still put this to good use. So get started on solving those variables.”

Valeria looked at the equations again, still frowning... then up at Dr. Silver. Silver returned her confused look with one of expectation. Finally, Valeria said, “Yes, ma’am,” nodded slightly, and moved off.

Silver spoke to a few more of her charges, including the engineer Chiu had held up, before discovering that the bulk of the workers were gone. Chiu had noted the same thing, and now appeared by her side. “Aaron’s already heading back to CnC,” he told her.

“Fine,” Silver replied. “Hopefully this crisis won’t cause too much of a disruption to our other projects.” She turned to her assistant. “So: Let’s get down to storage, and see how much of this work we can speed along ourselves.”

~

Kris’ arrival at the compound produced no fanfare: Although she’d called ahead and told Thompson she’d just come out of an important meeting with Ceo Lenz, he obviously hadn’t said anything to anyone on the diplomatic floor about it. Consequently, she walked quietly through the first floor, eliciting no

notice from the staff, and only a bit more attention from a few when she started straight up the stairs to the Presidential floors.

When she gained the top of the stairs, an aide approached her, clearly waiting for her arrival. “They’re waiting in the President’s office.”

“Thank you.” Kris proceeded across the floor to the closed door of the President’s office. Another aide stood nearby, and upon seeing Kris approach, went over and tapped on the door. Kris and the aide heard the voice from within, and the aide opened the door. Kris strode directly in, and immediately saw President Lambert behind his desk, and Enu Thompson at a chair facing the desk and allowing him a view of the rest of the room.

“Good morning,” Kris said as she took in Lambert and Thompson. “I have a report on this morning’s conference in CnC, regarding their efforts to secure Verdant against unwanted intrusion.”

“So we gathered,” Lambert said, indicating a chair on the opposite side of the desk from Thompson. Kris obediently sat down, glad at any rate to take a load off her feet and the high heels that made swift walking so uncomfortable.

“First of all,” Kris said, “Although this was, strictly speaking, a Verdant staff conference, Ceo Lenz asked me to attend. He said he wanted to make it clear that they were not discussing any offensive actions against other countries. He wanted there to be full disclosure between us. Also, he did not ask me any questions about United States policy or decisions... their business was specifically about defending Verdant from possible hostile acts. I am satisfied with his sincerity on this.”

“Understood,” Lambert said. “Go on.”

Kris nodded. “Verdant’s command staff is understandably concerned about the incidents in Fertile and Qing this morning. They are concerned about being boarded by refugees, at the very least. They are also concerned about the possibility of missile attack from the ground, though they did not specify a particular combatant. Nor did anything they directly or indirectly said suggest that they expect the United States to be that combatant.

“I discovered that Ceo Lenz has had his Science Advisor, Dr. Calvin Rios, researching a defensive screen of sorts,” she continued. “I’d actually spoken to Dr. Rios the other day, and knew he was working on something for CnC, but until this morning, I didn’t know what that was. The system they’re researching is designed to detect incoming craft or missiles, then use a particle beam to add enough energy to the detection field to actually disable or destroy the object.”

Lambert and Thompson’s faces screwed up, and they looked at each other. Thompson turned back to Kris and said, “Can that work? Doesn’t sound like anything I’ve ever heard of.”

“It’s apparently experimental,” Kris explained. “They mentioned Tranquil, as well... it may be something they are also working on. At any rate, Dr. Rios has apparently made enough progress on it to convince Lenz to order all the sciences section facilities devoted to constructing the defensive system, asap.”

“So, they have a defensive screen,” Thompson nodded. “Or, they think they do.”

Kris nodded. “Exactly. But there’s more. There was significant push-back from Coe Hardy and the head of the sciences section, Dr. Jacqueline Silver. They have been working on an experimental project of their own, which they were apparently keeping hidden from Lenz and Eo Luis. This secret project was

essentially a freight project. This part will no doubt sound silly,” Kris said apologetically, “but they seem to be working on a way to molecularly disassemble solid objects, send them to a location via a com beam or something, and reassemble them at the other location.”

“What?” Lambert said, clearly perplexed. Thompson gave her a similar look.

“Like a *Brane-Boy* transporter,” Kris said simply.

Lambert’s eyes fairly popped out of his head. Thompson coughed out a laugh. “No yeah!”

“Oh, yes,” Kris nodded, “and that’s not the best part. Not only have they actually pulled it off in limited tests—”

“Are you serious?” Thompson barked, his laugh instantly gone.

“—but they have realized that the system has another use: To transport bombs and missiles.”

“*Merde*,” Lambert uttered.

“At this point,” Kris went on, “Lenz ordered the project immediately shut down. He ordered all staff to be diverted onto developing the defensive screen. Including Silver and her transporter project.”

This seemed to bring a bit of calm to Lambert’s eye, but there was still a hint of concern there. Thompson voiced his concern. “They did that in front of you?”

“Yes.”

“Is there any chance that they waited until after you left, then ordered the project restarted?”

“Yes, there is always that possibility,” Kris said honestly. “However, one of the reasons I do my job so well is my ability to read people. I’ve spent enough time around CnC, and with Hardy and Lenz, to know that they do not have any interest in developing offensive weaponry, much less turning it on anyone. Ceo Lenz in particular wanted me to be aware of his desire to be open and above-board with your office. I believe he is being completely sincere.”

Lambert considered Kris’ report silently for a moment, before turning to Thompson. “What do you think?”

“Mmm,” Thompson begun, scratching his chin in thought. “I think Lenz is as concerned with avoiding cutting off his lifeline with Earth as he is of protecting Verdant. That’s a good thing, and something we may be able to work with. On the other hand, if this transporter thing can actually work... it could be a formidable first-strike weapon. I don’t think that’s something we can ignore.” He looked at Kris. “This is all still experimental?”

“Apparently,” Kris replied.

“Then I think there’s no question,” Thompson said. “We have to act in the interest of national security.”

“Sir?” Kris said.

“You’re right,” Lambert nodded, a strange light in his eyes. “We can’t allow them to develop this

potentially devastating weapon. It would violate their U.N. charter. We have to take action.”

“Action?” Kris repeated. “Mister President, they haven’t done anything to take action against.”

“And we’re going to make sure it stays that way,” Thompson said, reaching for the com in his pocket. “The Qing incident will be the perfect justification.”

“Agreed,” Lambert said, triggering the com on his desk. “Albert?” Kris recognized the name of the head of security on the compound. “This is the President. Put us under code orange, effective immediately.” He cut off the connection, then opened another. “Open an encrypted channel to Denver,” he ordered.

“Fawkes,” Thompson said, standing up and bringing Kris to her feet. “You’re to go back to CnC. You’re going to be our direct liaison during the occupation.”

“Occupation?” Kris goggled.

“Yes, occupation,” Thompson nodded impatiently, taking Kris by the arm and starting her for the door. “We are going to annex Verdant under the U.S. flag—”

“But... we can’t do that!” Kris protested. “We don’t have authority! We can’t demonstrate a credible threat! The U.N. won’t allow it!”

“Let us worry about that,” Thompson said simply. “In the meantime, you have direct authority from the President’s office to act as you see fit to aid in the securing of Verdant CnC, including the assassination of its command officers and staff as needed.”

“*What!* I’m no—”

“Now, get going!”

The door slammed, almost before Kris realized she was already on the other side of it. She stopped and stared at the door, at the muted voices she could hear inside, and her mouth hung open as she tried to imagine what they were discussing.

“Miss Fawkes?”

Kris started at the sound of the aide’s voice. When Kris jumped, the aide jumped as well, then said, “What’s wrong?”

Kris started to answer, but her imagination was running away with her. “Oh, God,” was all she could finally manage to say, before she turned and rushed out of the Presidential offices. She extracted her com and tried to dial the number she’d been given to reach CnC. For the first time in her memory, she heard instead the tone that indicated a busy circuit. She stared at the com stupidly for a moment... then increased her pace across the office towards the landing, and the stairs to the first floor level.

She reached down and plucked the high heels from her feet, allowing her to take the stairs two at a time. Then she veered into the diplomatic offices, sliding comically on stocking feet, and arrowing to a wall of drawers. She found a drawer with her name on a small tag, and yanked it open, revealing various small personal items that included a pair of shoes that were much more sensible than her heels. Even as sensible as the shoes were, they were still styled and colored so as not to seriously clash with her immaculately-tailored suit. She slipped the sensible shoes on, deposited her heels in the drawer, then

turned and bolted out of the offices.

She ran outside, crossed the compound, and waved at the security guard to open the gate as she approached. Fortunately, the guard recognized her from a distance, and no alarms had been spread from inside, so he had no reason not to start the gate open. Kris ran through when the gate was just wide enough to admit a person twice her size, and without a backward glance, she dashed for the tram terminal down the road from the park.

~

On the Presidential floor, Enu Thompson watched the video feed the security guard at the gate had sent him, showing Kris Fawkes dashing through the barely-open gate. “Thank you, Flagg,” he said, and closed the com connection. Then, after a moment, he opened a new connection.

*“Lambert.”*

“Enu. I don’t think Fawkes is on our side anymore.”

*“Sorry to hear that. Inform the team, then. Tell them that they are not to take any orders from Fawkes if they encounter her. Her diplomatic credentials and immunity are hereby revoked.”*

“Understood.”

## 20: Panicking

Calvin was glad to leave lab twenty, once he was sure that Dr. Fiennes had a satisfactory understanding of the field equations that would control the emitters. Fiennes had been easy to work with, in fact, being able to understand what Calvin, with his limited knowledge of the quantum-level states of the equations themselves, was trying to communicate to him. Between the two of them, they had managed to knock out the misunderstandings and come to a meeting of the minds. However, two of Fiennes’ staff had apparently been working very hard on their last project, and as it turned out, the interruption of that project meant a great deal of their extensive work would have to be redone from scratch. This left those two in a noticeably terse mood, and getting any assistance from them had been like pulling particularly sharp and venomous teeth. Fiennes promised to keep them both properly focused, however, so Calvin took his first opportunity to remove himself.

On his way towards Dr. Silver’s office, his com beeped with his wife’s code. “Hi, Maria,” he answered. “What’s up?”

*“I’ve been listening to the news all day,”* his wife replied. *“Have you spoken to Erin?”*

Calvin blinked hard to get past the non-sequitur. “Uh, no. Why?”

*“Because I can’t get in touch with her! She left for school this morning, but I’ve been trying to reach her, and I keep getting full circuit messages! It took me forever to reach you!”*

“Well...” Calvin had to stop and think about the strangeness of what he was hearing. “She went to



*school?" Of course she did... no one had declared an emergency on Verdant... "Then why are you trying to call her?"*

*"Honey, you haven't been listening to the news, have you?"*

*"No, I've been pretty busy."*

*"There are riots breaking out everywhere on Earth," Maria explained. "Wherever that ash cloud goes, people are panicking. And now—" (There was a break in the signal, causing Calvin to look at his com in alarm. That almost never happened. The entire satellite must be trying to call each other at once. Then the signal came back.)—"say U.S. armed forces are 'initiating routine training exercises!' You know what they mean when they say that! They all want to come up to the satellites, Cal! They want to come, whether they're welcome or not!"*

*"Yeah, I know that," Calvin replied. "That's what I'm in sciences working on..."*

*"I don't think it's safe here," Maria stated. "I think we're going to be invaded."*

*"Don't worry, honey," Calvin soothed her. "If we know they're coming, we can take steps to—"*

*"How can we stop them?" Maria snapped. "We can't keep them out! Cal, if there's fighting, I don't want to die in space!"*

*"Honey! No one's going to die!"*

*"I want to see Earth again. I want to see the Earth I remember, before it's all gone! Honey, can we go home?"*

*"We are —" Calvin paused, to collect his thoughts. Maria had a penchant for panicking unnecessarily about the smallest issue... and this one, to her credit, was hardly small. Moreover, she had a mild heart condition, a congenital flaw, which could be exacerbated if she got too excited. "Maria, I want you to calm down. Verdant is not under attack. Erin's safe at school. The circuits are busy because of too many people panicking over the newsfeeds and stuffing the lines... they'll open up, probably soon."*

*A long pause at the other end of the line. Just when Calvin thought they'd been cut off, he heard, "—Are you sure Erin's at school?"*

*"Of course," Calvin said. "Where else would she be?"*

*"I'm going to go get her out."*

*"Maria, no. Leave her there. She's fine there. Just wait for her to get home after school."*

*"When are you coming home, Cal?"*

*Calvin looked about and shrugged to himself. "I don't know. Soon, hopefully."*

*"Please come home soon, Cal. I want my family together if something happens."*

*"Nothing's going to happen, honey. Stay cool. I'll be home as soon as I can. I'll call you if something holds me up. All right?"*

“ ... ”

“Love you, honey. See you soon!”

*“I love you, baby. Hurry home!”*

Calvin closed the circuit, and increased his pace for Dr. Silver’s office. He thought it was a good idea to see if any other offices needed further assistance from him, or if there were any other questions he could answer for Silver. Then, perhaps, he could go home to calm his excitable wife...

~

“I love you baby. Hurry home!” Maria closed the circuit, put down the com, and wrung her hands nervously. *How can he be so calm... I can’t find my daughter!* Of course she knew Erin was supposed to be in school... but the school so often took the students out, on field trips to various offices and parks and other parts of Verdant... she could not get in touch with her now... which meant that she could be anywhere. And if she were caught in the middle of a gang of crazies that managed to secretly board Verdant, hell-bent on taking it over...

She felt a double-bump in her chest, and her eyes popped in alarm. She knew what that meant: Her excitement was aggravating her heart, and it had a tendency to race when that happened. It was something she’d had since childhood, and had never been able to fix (not that the doctors couldn’t, but it would require invasive methods and pacemakers that she wanted nothing to do with), and usually had no recourse but to lie down for anything from thirty minutes to a few hours, waiting until her heart remembered how to beat normally again.

But she waited, and it did not double-pump again. It seemed to be behaving itself. *Thank God*, she thought, *I have enough to worry about with Erin and Cal, if I had to worry about me, too!* Making an effort to move unhurriedly, she retrieved a light jacket, and headed for the door. She would just go and collect Erin from school, or find out where she was, and bring her home. She’d certainly be back before Cal, who was likely to be gone all day, knowing him. At least, she’d have her daughter home where it was safe!

~

When Calvin reached Dr. Silver’s office, he started to announce himself, when the automated voice in the inner chamber said: *“Doctor Silver is not in her office. Would you care to leave a message?”*

Calvin was taken aback, and stopped in his tracks. “Where is she now? Can you contact her?”

*“She is elsewhere in the sciences section,”* the voice replied. *“If you care to leave a message, I will forward it to her.”*

“Well... yes. Tell her Dr. Rios asked her to call me if I can provide any further assistance with the new project.”

*“Message received. Thank you, Dr. Rios.”*

And that was it. Calvin paused another moment, before remembering Maria, and finally turned to go. He said, “Thank you,” over his shoulder.

*"You're welcome, Dr. Rios."*

Once he was out in the hallway, however, he had a change of heart, and decided it made more sense to see if he could find out her whereabouts from someone else on staff. So he turned and headed back into the sciences section, occasionally asking someone he passed if they knew where he could find Dr. Silver. Always the exchange was the same: "Have you tried her office?" "Yes, she's not there." "Did you leave a message?" "Yes." "Then she should get back to you directly. She always does." Occasionally, the response was a more rude variation of the theme, but essentially the same... in fact, he only received one "No!" from an engineer who blustered past him, almost striking him in the shoulder as he passed (and Calvin was sure he'd swerved at the last moment, trying to hit him).

Finally, Calvin rounded a corner, and saw Lin Sen Chiu approaching from the other direction. Chiu saw him at the same moment, and nodded a greeting. "Hello, Dr. Rios."

"Hi, uh... Mr. Chiu. Or is it doctor?"

"No, it's mister, all right," Chiu smiled. "I'm just an administrator. You can call me Lin."

"Ah," Calvin nodded, realizing he probably hadn't heard his first name before. "I was looking for Dr. Silver, in case anyone else needed my help."

"Yes, I know," Chiu said. "I was with her when she got your message. She wanted me to tell you that everything is well in-hand for now. We'll give you a call if we need anything, but for now, if you have other business to tend to, feel free."

"Well..."

"You look flustered, Doctor," Chiu confided in him. "What's bothering you?"

"Well," Calvin repeated. "It's just my wife, the news outside has got her a bit stressed..."

"Oh, Doctor," Chiu said quickly, raising open hands and giving him *that's this a question?* look. "Go ahead. See to your wife. We have things under control here. Go ahead!"

Calvin finally nodded. "Okay. Remember, if you need anything—"

"We know who to call," Chiu smiled, waving him off amiably. "Good afternoon, Doctor."

"See you later."

Calvin headed out of the sciences section, glad that Silver and Chiu were on top of things for the moment. Hopefully he could make sure Maria and Erin were okay, then keep tabs on Silver's department as long as they might need him—

"Cal?"

Calvin turned to see Valeria coming out of a nearby break room. She had a small platter of fruit and a cup of some steaming liquid on it. "Hi, Val," he said. At that moment, it occurred to him for the very first time how odd it would have been if they had become a couple; people might have referred to them as "Cal and Val" everywhere they went.

“Didn’t know you were still here,” Valeria said, stopping to look at him.

“Yeah,” Calvin replied, “I just came out of one assisting in one lab, but it sounds like no one else needs me right now...”

“Actually,” Valeria said at once, “I could use you. Do you have a few minutes?”

“Uh... sure,” Calvin replied, shrugging. “What do you need?”

“Well, I need help with an equation Jacqueline gave me,” Valeria said as Calvin approached, and they started off in the direction of her lab. “There are some tricky variables she needs solved—well, I guess I should say, you need solved,” she amended. “And they’re giving me problems.”

“Okay,” Calvin nodded. “Which equations were these?”

“They’re the power-balancing equations,” Valeria replied. “Actually, I don’t know exactly where they fit into all this. But they were originally power balancing equations, that Jacqueline has me adapting for this defensive system.”

Calvin shook his head as they walked. “Yeah, I’m not sure which equations you’re referring to. Was this one of the original equations we worked on the other day, with Leon?”

“No, not one of those.”

“Well, it’ll wait ‘til we get to the lab. Speaking of Leon, I actually didn’t ask: Are you two an item?”

Valeria smiled, but she didn’t blush. “Well, maybe not yet. Mostly, we’re just bed buddies. And oh, *God*, what a buddy! Get him to solve a ninth-level quantum equation for you, and he’ll go all night long.” Then she shrugged. “Not much of a conversationalist, though... he’s kind of boring. But there’s potential. Remember when you first met Maria? You told me that you were worried you two wouldn’t be able to communicate, because she wasn’t a scientist.”

“Yeah, I remember,” Calvin grinned.

“Well, obviously you two got through that,” Valeria said. “Unless it’s just the sex!”

“No, it’s not just the sex,” Calvin laughed. “Not that that hurt! But no, we found plenty to talk about. And even more after Erin was born. She is beginning to worry me, though.”

“Why? What’s wrong?”

“Well, she’s just gotten very uptight about the state of Earth lately. She talks about going down there to see things... but mostly things that don’t really exist anymore. I mean, I’d like to take her on a trip, but not to a place of her choosing that turns out to be submerged, or trashed, or whatever. I was actually thinking about taking her to the Grand Canyon, before Yosemite went off.”

Valeria nodded sadly. “Hopefully you’ll be able to go, when this is all over.”

“God, I hope we get the chance,” Calvin replied as they reached Valeria’s lab and went inside. Valeria put her tray down on an empty corner of the workstation, and removed a pear from it, taking a bite and

immediately hunching forward to avoid pear juice dripping onto her blouse. “So,” Calvin was saying, “show me this equation.”

“Right here,” Valeria pointed at her workstation screen. “See, it’s a variation on another equation that I was already working on... the one Jacqueline said would apply to this project? Here, you can see I’ve got a working range going for the R-Phi variable, but then I can’t get the range to fit to the H-sub-Y variable. What am I missing here?”

“Hold on,” Calvin said, examining the equation. “I don’t know what all this is even for, Val. You said Jac—Dr. Silver said this applied to the project?”

“Yes.”

“How?”

Valeria shrugged sheepishly. “Actually, she didn’t say. She just said it did, and asked me to get started on it.”

“I’m confused,” Calvin stated, staring at the equation some more. “You said you were working on this equation before?”

“Another variation on it, yes,” Valeria nodded.

“Related to what?”

“Our freight project.”

“Is that the project Aaron Hardy had Dr. Silver working on? The one everyone was being so quiet about?”

“Pretty sure,” Valeria said. “A lot of us are working on bits and pieces of it, I think. Well, up until today.”

“Then why did she give you this?” Calvin rubbed his chin thoughtfully as he examined the screen. He didn’t see how the equation before him could be applied to the defensive project at all... so why did Silver give it to Valeria? Was she planning to secretly keep working on the freight project?

“We have to find Silver,” Calvin abruptly said, as his mind kept racing ahead. He remembered the unvoiced suggestion in the conference room... about the possibility that Aaron and Silver’s transporter system could *deliver bombs* —

“And we’d better hurry,” he added, grabbing Valeria’s arm and towing her out of the lab.

~

Kris tried again to get a message through to CnC, but again, her com gave her a busy circuit signal. “Damn!” she snapped, causing a number of the people on the tram to snap their heads in her direction.

But she was only one of many. Quite a number of people on the tram were grumbling because their com calls were not going through, either. Kris had heard people mention the incidents at the other satellites, and a general concern by everyone for the safety of their loved ones, and she could only guess all of

those people were trying to talk at once on the com lines, checking up on each other, trying to get together in case something happened around them.

Kris noticed, but paid them no mind. She was too upset to be concerned about them right now. She had a sick feeling that there was about to be a war... and even worse, that she would be caught on the wrong side. Thompson's orders to her had been the last straw: She was content to use her talents to ferret out information, but she was not about to act as a government assassin, just so the United States could ruin her home.

Angrily she tried her com again, trying to get a clear line to CnC. Again, she got the busy circuit tone. "*Shit!*" she spat out, causing even more people to look up in annoyance or concern.

Almost as she reached the end of the tramline, she finally heard the tones that indicated her call was going through. "*CnC.*"

"This is Kristine Fawkes, diplomatic representative for the United States government!" Kris snapped out, her voice loud due to stress. Quite a number of people looked up when they heard her yelling across the tram, and especially when she announced her title. "I have an urgent message for Ceo Lenz or Eo Luis, get me either of them right now!"

"*Stand by, Miss Fawkes, I'm—*" There was a perceptible break in the line, followed by a return of the same voice. "*—lease hold on whi—*" The line broke again, and after a moment, the busy circuit signal cut in again.

"*God-dammit!*" Kris belted out, and threw her com angrily at the far wall of the tram. The com shattered when it hit the window, scattering pieces over half the car. Other passengers immediately started either ducking from carbon shrapnel or shouting at her: "Jeezus, lady! What's your problem!" "Are you crazy?" "Knock that shit off!"

But before Kris could respond to any of them, the tram came to a stop, and the doors opened. From here, a lift-ride would take her up to the CnC floor, and she could run the rest of the way. Kris was out of her seat like a shot, bolting past other passengers and fading up the corridor towards the lifts.

~

"Sir, I'm pretty sure it was Diplomat Fawkes," one of the CnC technicians was telling Julian. "But I lost her signal. All this com traffic—"

"I know," Julian nodded. "See if you can get her back."

"We have other issues," Reya called from across CnC. Julian joined her at the main workstation. "Flight activity from the ground. These look like fighters, not passenger aircraft. And see that one?" She pointed at a slightly different set of ident numbers. "Troop carrier."

Julian examined the main display, which showed indicators in a number of locations bordering the southern edges of the United States. "Have they—"

"Look there," Reya said, pointing at one set of indicators. "They've launched from south Texas. They're gonna take a beating going through the ash layer from there, even with a southerly course. Only one reason you do that."

Julian nodded. "Alert the Wasps. Go to code red standby, repeat, code red standby."

Reya nodded, reaching for a com mike and starting to speak... then pausing a moment. Julian noticed her pause, looked to her to see what was going on, and saw Reya looking towards the main corridor entrance to CnC. Julian followed her gaze, as Reya resumed issuing orders, and saw Kris Fawkes literally running towards CnC. She was a sight to behold in her immaculately-tailored suit, her dark hair streaming behind her, and taking the strides of a long distance runner.

When she reached CnC, she skidded to a stop nearby Julian, and tried to stand poised and regulate her labored breathing. "Sir... I need to speak..."

"I hate to break it to you," Julian said, placing a steadying hand on her shoulder, "but we already know. The first fighters have mobilized from Texas."

Kris looked at the main board, and a pained expression came across her face. She nodded, still breathing heavily. "I tried to call... there's more," she managed. "Thompson... as much as ordered me... to kill you if necessary... to secure Verdant control for the United States." Those who were in earshot went silent, and all turned to stare at Kris and Julian. Slowly, she regained her composure, and her breathing became more normal. "I hereby surrender to you... I abdicate my position as American diplomat. And I advise you to take all appropriate steps... to protect yourself, and the CnC. There will probably be others..."

"I understand," Julian said, turning to face one of the security guards at the entrance to CnC. "Code four, Lieutenant. Seal us up!" The security guard he had addressed immediately saluted, turned to a panel on the wall, and punched in a series on its keypad. As he did so, the other guard shifted his position to the outside of the entryway, and a moment later, a set of glass double-doors began to slide out of the opposite walls on heavy gimbals. They converged on each other and connected, and a loud *hiss* signified the hermetic sealing of the room, leaving the Lieutenant on the inside of the room, and the other officer outside the doors to CnC.

Most of the technicians had watched, spellbound, as the ominous doors closed and sealed them inside. Reya, however, had kept her eyes on the main workstation, and abruptly, she looked up. "We have an incoming message," Reya announced, pointing at a technician. "Put it on speaker." The technician worked, and after a moment, a voice was heard throughout the room.

*"This is Vice President Lena Carruthers of the United States of America. It has been brought to our attention that the satellites of Verdant and Tranquil, and probably Fertile and Qing, have developed an offensive weapons system, in violation of their U.N. charter."*

"We have?" a technician asked. Reya gave them a look to shut them up, as the voice continued.

*"Given the fragile state of affairs at present, the United States feels it is in the world's best interests if this threat is neutralized as soon as possible. Therefore, we are sending troops to occupy Verdant and Tranquil, and to secure this weapons system. We require the cooperation of Verdant and Tranquil to allow the peaceful transfer of power to our forces. Failure to do so may result in further action to secure the satellites, and may involve a hazard to the residents and inhabitants aboard the satellites. We have no desire to harm innocent citizens. Therefore we urge the commanding staff of Verdant and Tranquil to comply with this order. We require a response on this channel within one hour, time starting now. That is all."*

All of CnC was quiet after the broadcast, the only sounds being com traffic between the Wasps that

murmured throughout the room. Reya looked to Julian, who seemed to be absorbed in the activity on the main board. Kris Fawkes also watched Julian from just a few paces away.

Julian finally broke the silence by muttering, “We’ve just been threatened by Cocktail Barbie.”

Reya did not bother to suppress a grin, and finally asked, “Any response?”

Julian shook his head. “They gave us an hour. We’ll respond in an hour.”

Reya nodded. “What are we going to tell them?”

Julian looked at her. “I’ll tell you in an hour.”

## 21: Collision

“Here it is.”

“Is there a light?”

“Of course there’s a light, Cal. Hang on.”

The room remained dark for a few more moments. All Calvin could see before him was a large, mostly spherical silhouette connected to the floor, and other shapes that suggested machinery stationed around it, or perhaps suspended from the walls. Then he heard a barely-audible click, followed by the activation of a light panel on the ceiling. Three more clicks signaled the activation of three more ceiling lights, until the room’s lights were all on, and the room was completely revealed.

“Yup,” Valeria said from behind him, “that’s it. The second test-bed.”

“Yeah?” Calvin approached the object. In the light, he could now be sure it was a beach-ball-sized sphere, though the wealth of modules, cables, antennas and exposed panels that festooned its surface almost hid its spherical nature. It sat on a gimbaled cart that seemed custom-made to support it, and cables ran from the sphere, and the cart, to other machines that filled the room around it. “What-all is it connected to?”

“Most of this stuff, I think, is to download and examine internal readings and monitors,” Valeria replied. “But that’s not my area, you know... I just did the calculations for it.”

“And what, again, were your calculations supposed to do?”

“They were supposed to provide an instantaneous factor that represented its composition and location at a precise moment, which would impose itself on the object during translation.”

““Translation”?”

“Yeah,” Valeria nodded. “It’s quantum-speak, because the thing doesn’t actually *move*, it sort of... isn’t here anymore... now it’s there.”



Calvin wasn't sure he understood the distinction either, but that was quantum physics for you. He shook his head. "Anyway, obviously no one's messing with it."

"Who did you expect to be messing with it?"

"Dr. Silver... or some of her people," Calvin replied. "I was afraid that... I don't know... they'd be putting something inside of it. Some kind of... payload."

"A bomb?" Valeria did not regard him as if he was crazy, but she nonetheless looked dubious. "Look, Cal, I saw this thing at various stages of construction, as it so happens. I'm no engineer, but I can tell you that thing's so packed with equipment that there's not enough room inside to slip in so much as a firecracker, much less a serious explosive."

So, okay... no one's arming the thing," Calvin agreed. "That's good. Is there a chance there's another test-bed somewhere?"

"Sure, the first one... I've seen that one, too," Valeria replied, and Calvin perked up. Then Valeria held out her hands as if cradling something about the size of a soccer ball. "It's about this big. And even more packed with equipment."

Calvin's frustration was evident on his face. Finally, he said, "Well, if your calculations aren't for this thing... and it's not for the defensive system... what's left? And where the Hell is Dr. Silver?"

~

*"This goes on record as the most screwed-up day I've ever had out here,"* Hunter grumbled from Wasp three. Already on his third flight rotation since being scrambled that morning, he and Goldie were still doing the same thing, maintaining their position between Verdant and a small collection of sub-orbital fighters and troop carriers from the ground. The craft had entered orbit and taken up positions one kilometer below them, too far away to reliably engage, and were apparently waiting for the end of the hour that Carruthers had specified in her announcement. Which was still over twenty minutes away.

Goldie couldn't argue with her wingman... it had been a frustrating day. Maintaining station, returning to Verdant so a fresh team and set of Wasps could hold their station, getting just enough rest to return to their refueled Wasps and go back out, back in, back out... it was unnerving just thinking about it. Then, seeing the enemy ships approach (and how else could you think of them at this point, except as "the enemy?") and take stations below, forcing them into staring contests, waiting to see who blinked first.

Goldie knew Hunter, too, and if she knew anything, it was that he was aching for an excuse to attack the American fighters: The atmosphere-optimized design of an F-449 Raptor was configured for fighting on-the-run; but in orbit, a completely different set of battle maneuvers were required, and a Wasp fighter was designed to take advantage of a three-dimensional airless playing field; the Raptors would be just naturally clumsier fighting in vacuum than a Wasp, and Hunter would be looking forward to showing them up.

*"They could at least let me fire some warning shots,"* Hunter commented. Goldie knew he was kidding. But only just.

"I'm sure you'll get your chance," Goldie told him over the com. "Right now, just be cool." As she spoke, she watched her monitors, her eyes drawn to two craft near Tranquil, a freighter and a troop

carrier. The freighter had been there, hovering outside of Tranquil, for most of the day, having taken off before the lock-down, and apparently hoping the lock-down would be eased for them to enter. But the lock-down had remained, then the ground-based fighters had shown up, and the hapless freighter was stuck in the middle of a potential battle zone.

Now it had finally decided to move, firing its retros and sliding away from Tranquil and the phalanx of Wasps keeping station ahead of the satellite. It edged away slowly, as if intent on escaping the field of battle without arousing concern by either party. Goldie oriented her telescope to give her a close-up of the action, and she watched it, hoping they would manage to avoid upsetting any nervous or trigger-happy airmen over there...

When, without warning, the freighter bucked, making the kind of maneuver that could only happen if a manual control stick had been jostled by someone.

*"Uh-oh."* Hunter had seen it on his monitors, too. *"That didn't look good."*

Chatter erupted on the coms... requests for status on the freighter, warnings to mind its course. There were no responses from the freighter. And then it bucked again. The same kind of motion. Goldie was sure now: They were having control problems. As in, someone was on the bridge, fighting for control. Perhaps someone who was adamant about staying put, or on forcing themselves onto Tranquil... or maybe it had been someone like that that had wrested control in the first place, trying to de-orbit before the freighter's pilot returned to regain control...

But it mattered little now. What did matter was that the freighter was beginning to swing out of control, in the middle of a veritable powerkeg of fighters. Com chatter was becoming urgent and insistent, and voices were rising in tension. Goldie felt a sick feeling coming to her stomach, as she imagined a firefight being started, and escalating, because of this. "Come on guys," she muttered to herself, "get it together..."

But almost in answer to her worst fears, the freighter shifted in a new direction, this one taking it in the general direction of a troop carrier.

*"Oh,"* Hunter muttered, *"that's really not a good idea..."*

At first, Goldie thought the freighter would simply heel over the carrier's port side, which was already firing its own maneuvering jets in an attempt to get out of the runaway freighter's way. But the freighter changed direction again, almost as if someone on board wanted to hit it. "Shit!" Goldie hissed, as she waited for the inevitable.

As com voices became louder and more urgent, the freighter collided with the smaller troop carrier, and the sounds of static and tortured equipment drowned out the voices. On Goldie's screen, she could see both ships twisting away from each other, torn metal shearing away from both craft, and then a steady stream of vapor that began to emanate from the side of the freighter.

Amazingly, not a shot had been fired by either side. (*Hunter, Goldie reflected, must be so disappointed*.) The troop carrier was already regaining control, and returning to station, although there were still a lot of urgent voices out there. The freighter simply drifted at first, as if the collision had shut down its control systems, or perhaps incapacitated everyone in the control room. Then there was a controlled burst from the freighter's retros, and the ship stopped its drift.

Presently, Goldie heard a voice she hadn't heard before... for the first time, the freighter spoke over the

com. They tried to relay to Tranquil's CnC what had happened: Apparently, they had decided to return to Earth, when some members of the crew decided they'd rather force their way aboard if possible, and a fight for control had ensued.

But now, Goldie could hear other urgent voices on the freighter's channel. Whoever was apparently in charge was now reporting that the collision had caused a severe coolant leak, inside and out, that threatened to compromise the internal atmosphere of the freighter. Now they had to request an emergency docking, before they all suffocated. It occurred to Goldie that the emergency they were declaring could be almost impossible to verify, and that the faction that had mutinied a minute ago could be fully in control now, and simply taking advantage of the leak to bullshit their way aboard. But Tranquil had no way of confirming their problem, and U.N. law was clear: In the event of a declared emergency, they had to allow them aboard.

The same train of thought had apparently run through Tranquil, and Goldie could tell from the requests from CnC that they were attempting to confirm the severity of the leak. But in the end, there was nothing they could do, and they gave their official authorization to dock.

*"Like we didn't see that coming,"* Hunter commented wryly.

They all watched as the freighter began a careful turn designed to orient it with the docking systems on Tranquil. Goldie started to re-orient her telescope away from the freighter, and back to the fighters ahead of her... when, all of a sudden, she heard Hunter say, *"Aw, damn!"*

"What? I didn't—" Goldie brought her telescope back around, in time to see a vast field of debris expanding around the rear of the freighter, and what looked like a sizable section of the hull and main engines missing. *The coolant leak had been real, and something had exploded.* The freighter was already beginning to spin out of control, virtually in front of Tranquil's northern hub.

~

"They're issuing a mayday!" Reya snapped, her hand pressing an earpiece to her ear, her other hand flying over the com board to isolate the signals. Julian and the rest of CnC watched on workstation screens, or on the main station's column, tuned into a telescope that was trained on Tranquil.

"Engines must be venting freely!" a technician cried out. "Looks like their entire regulation system is blown away! It won't stop as long as they've got fuel in there—"

"Track!" Julian ordered.

At another workstation, a young girl worked over her board. "Spiral course, motion on all axes," she reported, biting her lip as she tried to make sense of her readings. "I'd say an... eighty, ninety percent chance of collision with Tranquil!"

At that moment, the GLIS began speaking: "Freighter collision with Tranquil imminent. Freighter collision with Tranquil imminent..."

Julian grabbed a com mike from the main station and keyed an override signal that would broadcast on all circuits. "Intercept that freighter! Do not let it impact Tranquil! Repeat, intercept that freighter, by any means—"

His voice broke off, when they saw the flash. For a split-second, it was possible to make out the

freighter, twisting in a new and violent direction as it impacted the north face of Tranquil. Then there was a second flash and a spherical blast-wave that popped around them. Metal and other debris spewed in every direction from Tranquil's hub, and not all of it appeared to be from the freighter. As they watched, bouts of flame erupted from the surface of Tranquil from multiple points, and more debris was thrown into space.

"Tranquil has had a collision," the GLIS reported. "Northern hub region. Routine com traffic between Verdant and Tranquil has been cut off..."

"Oh, God," someone said. Julian did not take his eyes off the screen to see who it was... it really wasn't important now. What was important was that a freighter had just suffered a major collision with Tranquil's northern hub. And from the looks of it, it may have compromised a major facility in the northern hub.

Tranquil's CnC.

Julian lifted a mike to his face, and spoke deliberately. "Tranquil CnC, this is Verdant. We see your collision. What is your status? Please respond." He watched the screen, as clouds of vapor continued to erupt from Tranquil's northern hub. All that could be heard over the speakers was static. "Tranquil CnC, this is Verdant CnC. Please respond."

After a moment, he looked at Reya, who still had her earpiece in, and a hand on her board, but was now unmoving. She looked at Julian, her face ashen. He glanced around CnC, and noticed Kris Fawkes, against the far wall near the door to his office. She was obviously trying to stay out of the way, and at that moment, she stared at the proceedings wide-eyed, her arms in front of her, one hand covering her mouth.

"Tranquil has had a collision. Northern hub region. Routine com traffic between Verdant and Tranquil has been cut off..."

Unbidden, Julian imagined the state of Tranquil's CnC at that moment.

"Tranquil CnC, this is Verdant CnC. Please respond. Tranquil, please respond."

"Uh-oh." Reya examined the images in the main column closely. "Ground craft are moving in on Tranquil. Towards the northern hub. Com traffic says they are coming in to assist, but..."

The "but" was obvious to anyone who was looking at the main column. Tranquil's Wasps were moving to block the ground fighters and troop carriers. Traffic was getting very dense, and the Wasps were moving about agitatedly.

"Wasps are warning them off," Reya said, listening through her earpiece. "A lot of shouting back and forth..."

"Tranquil CnC, this is Verdant CnC," Julian tried again. "Please respond—"

"Shots fired!" a technician cried. "Shots fired over Tranquil!"

~

"God-dammit!" Goldie watched angrily as the fighters swarming around Tranquil's nose began firing on each other and assuming attack positions. They were all too close to the still-venting northern hub as it

was... one of them was likely to slam into its already-damaged surface soon enough.

*“They’re insane,” Hunter commented, “fighting in such close-quarters right off Tranquil’s nose.”*

“They’re insane to be fighting at all!” Goldie snapped, finally swinging her telescope off of the action at Tranquil, and back down towards the fighters that maintained orbit below them. “Keep an eye on those guys over there... I’ll be watching the guys down here.”

~

Calvin and Valeria had just gained the next floor of the sciences sections, and had resumed searching the various labs for signs of Dr. Silver, when the both began to notice an agitated mood among the staff they came across. It took a moment to get close enough to hear anyone’s comments:

“—Blake lost contact to CnC, too. They got a security message—”

“Before or after the attack? Are they all right?”

“I don’t know, no one can—”

“What attack?” Calvin rushed over and demanded. “Is CnC under attack? Are we being boarded?—”

The scientist he’d interrupted turned to him impatiently. “Not here... on Tranquil! Tranquil’s been attacked!”

“Tranquil?” Calvin stared, as Valeria reached his side. Then he turned back to the scientists. “Have you two seen Dr. Silver?”

“No...”

Without bothering to question them further, Calvin took Valeria’s hand and led her off. Valeria looked back at them before asking Calvin, “Cal, did they say we were attacked?”

“No, Tranquil’s been attacked,” Calvin told her. Then he drew up short, when his com buzzed in his pocket. He snatched it out, checked the screen, and activated it. “Erin! Are you okay?”

*“Sure, Dad, I’m fine,” his daughter’s voice replied. “But everything else is going crazy! They say there’s fighters over Tranquil, and an explosion!”*

“Explosion?” Calvin pinched his eyes shut, trying to think past the chaos he was imagining going on there... and maybe here, soon. “Where are you?”

*“I’m at home,” Erin said. “Is Mom with you?”*

“Whu—I told her to stay there and wait for you!”

*“Well, should I—”*

“Don’t go anywhere!” Calvin barked. “Try to reach her on her com.”

*“The coms are hardly getting through—”*

“I know! Just don’t leave the house! Mom will probably be back soon. Understand? Stay there!” He looked at Valeria, and her eyes reminded him of the task at hand. “I’ve gotta go, honey. Wait for your mother!” He closed the connection... and it occurred to him a split-second later that he might have told her “I love you.” He prayed it wouldn’t be the last opportunity he’d get.

He started to rush off with Valeria, when a door opened behind him. Valeria saw it, and yanked back on Calvin’s arm, bringing him to a stop. “Ow! What?—” When he saw Valeria’s eyes, he turned. Dr. Silver and Lin Sen Chiu were standing there in the doorway, peering about the corridor with alarmed looks on their faces. Then they locked eyes with Calvin and Valeria, and the two of them went through noticeably different reactions: Chiu’s eyes popped and his mouth fell open, as if he’d realized he’d been caught with his pants down.

Dr. Silver, conversely, looked at them determinedly and said, “Dr. Rios! Dr. Epstein! In here, now, please!”

Calvin immediately swung about and strode after Silver. “Doctor, what the Hell are you—”

“We’ll discuss it inside!” Silver snapped, while Chiu looked at Silver, his mouth opening and closing comically.

“I’m sorry!” Chiu finally managed to say to Silver. “I thought... if I’d known—”

“Never mind, Chiu,” Silver told him simply. “It’s not important, now. Everyone, inside.”

Silver turned on a heel and walked back into the room, closely followed by Chiu, then by Calvin and Valeria. Chiu stayed by the door, and closed and locked it when they were all inside.

“Now, what—” Calvin started, when his eyes automatically roved about the room, and he was involuntarily drawn up short. The room, by itself, would have been impressive enough; Calvin hadn’t realized, when he’d come through a normal-sized door, that he’d just entered the rear of one of the science section’s larger equipment rooms. In fact, the room was the size of a small theatre, with what must have been a ten-meter-high ceiling that seemed to be one immense light panel. The room was bathed in light, and all that light gleamed off much of the machinery in the room.

Calvin, not being an engineer, had no idea what much of the intricate equipment around him was for. He did recognize powerful workstations, memory storage tanks as large as group display tanks, and numerous high-voltage conduits. What he largely did not recognize were the myriad of carbon- and carboceramic-sheathed modules and assemblies that literally filled the space from floor to ceiling, courtesy of a massive scaffolding that extended through the floors and walls of the room, as if it was anchored to the structural members of Verdant itself. The components were all interconnected by cables, bound trunks of wires and optic channels, and quite a few rigid beam conduits, all criss-crossing in an impossible tangle of equipment. In the middle of it all was a single massive object, sheathed in carbon-black, twice as long as it was wide, and twice as wide as it was tall. One end of the object had a rigid conduit that terminated in a box made of the same carbon-black.

At the far end of the room, so large that they almost managed to hide the storage doors that filled most of the far wall, were nine monoliths of carboceramic that almost reached the ceiling, standing side by side, close together in a way that suggested the shelves of a compact library, if they had been scaled up to about three times natural size. The monoliths were connected at the floor to a collection of complex assemblies, one to each monolith, that all interconnected to each other in series. Thick conduits, all

marked with high-voltage warning tags, ran to the object in the middle of the scaffolding.

All about the room, within the scaffolding, at the workstations, monitoring various pieces of equipment, were other engineers and scientists, who all stopped what they were doing to look at Calvin and Valeria, staring back at them.

Calvin looked at Valeria, who returned his look of confusion. So he swept his arms out and said, loud enough for someone on the far side of the room to hear, “What the Hell is all this?”

In response, Dr. Silver looked at Valeria and said, “I don’t suppose you’ve finished the calculations I gave you earlier? We really could use them right now!”

## 22: Moment of Truth

### 13Aug2229

Although Julian had a technician continuing to try to raise Tranquil’s CnC, he had given up hope that there was anyone to speak to. Judging by the long-range telescopes and telemetry, the only conclusion they could reach was that the freighter’s collision had breached the hull by the Ceo’s offices, and in turn, CnC itself. CnC was certainly destroyed, or at least critically damaged, and he expected that there had been significant or total loss of life in the Command and Control center.

Most likely including his longtime friend, Evelyn Volov.

Even now, watching gasses and occasional bouts of flame venting from the northern side of Tranquil was painful, and Julian had had to avert his attention from it, and give the job of trying to raise them to another. Evelyn hadn’t deserved that death... no one on Tranquil did. And no one on Verdant, or Fertile, or Qing, deserved a similar fate for protecting the integrity and survivability of their satellite. But there didn’t seem to be anything they could do to protect themselves from those on the ground, if they were that intent on coming up... there were simply too many of those from Earth to stop. Julian supposed that even Evelyn’s defensive system, if it had ever been worked out (and at this point, he was sure Dr. Rios had no chance of seeing his theories borne out in time), would not have done the job.

His eyes were drawn to the main column, and he interpreted the readings even before Reya spoke. “Incoming ships from below... and one of them is big.”

The GLIS added detail. “Twenty-one unscheduled craft approaching Verdant. No registries or ident transmissions are being received.”

Barely concealing his anger, Julian moved closer to the main workstation as Reya examined the telemetry. After a moment, she said, “It’s a fighter-carrier, looks like a U.S. configuration. And it’s being escorted by twenty fighters. They’re on course for Verdant.”

“Launch all Wasps,” Julian ordered. Order the Wasps on-station to attack as they will.”

Outside, Goldie and Hunter watched the blips on their monitors, and knew what it meant.

*“That’s it,”* Hunter stated, *“they’re bringing it. To us. If we don’t—”*

Hunter’s voice was interrupted by the signal from Verdant CnC. *“All Wasps, Verdant CnC. Consider yourselves under attack. Respond at will. Repeat, respond at will.”*

*“Took long enough!”* Hunter said, immediately heeling his Wasp to port. Goldie knew exactly what maneuver he was setting up for—she would have ordered it at any rate—so she matched his move, brought her engines to full burn, and offered a silent prayer.

Then she said, “Hit it!”

Hunter roared a rebel yell that crackled through the speakers, and the Wasps arrowed down to engage the enemy.

~

“I can assure you, Dr. Rios, that this is not part of a freight experiment.”

“Well, I know it’s not part of a defensive system, either.”

“I’m afraid not,” Dr. Silver admitted. “That idea, promising as it may be, was too late to implement even when Tranquil first gave it to us.”

Calvin’s gaze swept from the vast space of machinery before him, to Dr. Silver, and back to the room. “Then I give up: What in Hell is it?”

“‘It’ may be vital to the very survivability of Verdant, and quite possibly, to the Human race,” Dr. Silver replied matter-of-factly. “Assuming, of course, we manage to activate it... which is why I need those calculations.”

“Dr. Silver, will you please explain—”

“Calvin!” Dr. Silver snapped, and as Calvin did not remember her using his first name—*ever*—he was brought up short. Satisfied that she had his attention, she continued. “If the reports Lin is hearing are true (and Calvin noticed, for the first time, that Chiu had a com earpiece in his ear), then Tranquil’s CnC is already destroyed, Fertile is still silent, Qing is co-opted, and Verdant is now coming under attack from the ground. That means that, for all intents and purposes, it is *too late* for you or me or any of us to build your defensive system to help protect our satellite.” She paused to allow the logic of her statement to sink in. “Therefore: I’d appreciate it if you would humor me, and please help me with another urgent task. Before it really is too late.”

Calvin froze, at a loss to figure out what to do. He knew that Silver was essentially correct: It was too late to build their defensive system now. But here was Silver and a team of people, doing he-didn’t-know-what, acting like whatever this monstrosity was, would somehow guarantee the safety of Verdant. Silver had never struck him as unbalanced or impractical—and she seemed to be completely rational now—yet something made him want to find someone to arrest her... or at least have her committed.



With no internal guidance to go on, he finally looked at Valeria for help. Valeria had also been watching Dr. Silver carefully, and she finally turned to Calvin. When their eyes met, Calvin had no trouble reading the intent behind Valeria's expression: She wasn't sure what was going on, either; but she believed in Dr. Silver and trusted her, and was inclined to accept that whatever she was doing, however crazy it seemed, was actually the right thing to do.

Taking a deep breath, Calvin reached out and took the datapad from Valeria's hand, and approached Silver and Chiu. "Valeria said she found a working range going for the R-Phi variable, but got stuck on the range to fit to the H-sub-Y variable. What are we trying to accomplish with these equations?"

~

Wasps three and four slid right and heeled left, unleashing another salvo from their guns, and cutting altogether five fighters in half at once. Then they sheared apart and circled back, altering their configurations regarding each other as they prepared for another attack run.

So far, all the Wasps were having similar luck against the clumsy Raptors, rendering them next to useless against them. But they were outnumbered easily twenty to one, and if they weren't careful, just a few lucky shots could end the skirmish and leave Verdant wide open.

"Delta-six," Goldie said, that brief command being all Hunter needed to slip into a new attack configuration and wait for her next order. "Three!" Hunter threw his ship sideways as Goldie came behind him, and used his ship as a feint to fire on the third Raptor in the formation ahead of them. The Raptor ripped into pieces, and the other two arced clear before they were caught in the crossfire.

Hunter started to speak, but realized in a split-second that one of the Raptors had happened into a maneuver that would bring it to bear on his Wasp. "*Whoa!*" he cried as he kicked the retros, putting the Wasp into a tight spin just as the Raptor fired. The Wasp seemed to pirouette on an off-center point, which was intersected by the tracers from the Raptor, but the Raptor was rotating in the wrong direction. The Wasp, in the meantime, finished its pirouette and faced directly down at the Raptor, which was helpless to maneuver into a new firing position, or get out of the way. Hunter fired, and the Raptor ripped apart below him.

"You watch it, three!" Goldie snapped, glad he had managed to pull out of that near-fatal position. *There, but for the grace of God, goes Hunter.* "Break left, let's give that carrier some sweat!"

"*You don't seriously expect to disable that thing?*" Hunter responded.

"I just want 'em to know who's boss around here," Goldie said.

"*That I can do,*" Hunter replied enthusiastically. "*But they'd better get the message fast... we can only keep this up for so long, and they know it!*"

"Then let's make sure they know what it's gonna cost 'em," Goldie said grimly. "Delta-two, break wide, on me ...*break!*"

~

"They obviously don't want to fire on us," Reya was commenting, "considering what they really want is to occupy us." She watched the skirmishes on the main column. "But they have a full complement of missiles on that carrier. Somebody gets trigger-happy, or just a little too pissed off, and that's all she

wrote.”

“Thank you, Little Miss Sunshine,” Julian muttered, earning him a lopsided grin from his Executive Officer. “But I’m more concerned with their deciding to try to board us forcefully through the central core.”

Reya nodded. “Freudian allusions aside, if they penetrate us there, there won’t be much we can do to stop their getting all the way in...” she looked again at the column. “Aw, Hell!”

Everyone looked at the icons she was pointing to. “Another carrier coming up, complete with fighter escort!”

Julian suddenly found himself glancing over at Kris Fawkes, still standing quietly out of the way. He fervently wished there was some message he could give her to deliver to President Lambert that would stop this madness... a threat, a bluff, a promise, anything... but he couldn’t see any possibilities. Kris, who had been looking elsewhere, turned his way at that moment, almost as if she had sensed his eyes upon her. Their gazes locked. Julian could see that she was wishing the same thing he was.

~

“It’s working. There, right there, look!”

Dr. Silver crowded next to Valeria and Calvin, and bent with them over the workstation they had been working feverishly over. The three of them, with occasional input from a scientist or engineer that Dr. Silver would call over from another task, had been throwing ideas and numbers about, wrestling with the figures, trying to coax them into giving the answers Dr. Silver said she needed. Calvin was still not sure what the figures were for, or what the monstrosity behind him was designed to do, but once he had decided to trust her judgment, he had thrown himself completely into finding a solution, if only to see what she intended to do with it.

Only Chiu had stayed out of their way, not being a scientist or mathematician, and who therefore had nothing to contribute. But even he started to come around the other workstation where he had been standing, when he heard Calvin’s exclamation.

Valeria examined the figures on the screen. “Are you sure? That y variable still has a plus-or-minus of point-zero-zero-four...”

“No, that’s fine,” Calvin said. “Look here. Adjusting the sub-g variable absorbs that y variance at the next level... see? That’s why the range didn’t work before...”

“Show me the projection,” Silver urged by his side. Calvin worked over the controls, and as they watched, a three-dimensional plot began to form, its cymbal-shape revolving on the screen.

Valeria watched, and after a moment, her eyes popped. “Oh, shit,” she muttered. Then, in a louder voice: “That’s it! That’s it!”

Dr. Silver turned and regarded Calvin with shining eyes. “You did it.” She said it reverently, as if he had just summoned God himself... a tone that was not lost on Calvin. The moment was short-lived; she immediately spun about and said, “Lin! Transfer the equation to the gigacapacitor control!” Chiu immediately jumped back to the workstation he had been standing near, and worked over it furiously, while Silver lifted her head up and bellowed throughout the room: “Standby, everyone! We’re going live,

right now!” Then she strode away from the workstation, as the workers all around the chamber scrambled for their stations.

“Going live?” Calvin repeated, caught flat-footed by Silver’s sudden motion. A moment later, he stumbled after her, followed by Valeria. “Doing what?”

“In a minute,” Silver said over her shoulder, then glanced up at a workstation high up in the scaffolding. “Ozzie, tell me when you have a ready! Lin, what’s going on outside?”

Chiu came up beside her. “It sounds like... a second carrier is approaching. Our fighters can’t repel all their fighters. It’s almost over.”

“Not yet, it isn’t,” Silver stated, and raised her voice again. “Gentlemen?”

“I have a ready!” Ozzie suddenly yelled down.

Another technician called out a moment later, “And I have a full count!”

Silver turned towards the back of the room, where the monoliths resided. “That’s it! Charge ‘em up! Cates, you have the coordinates input?”

“Yes, ma’am!”

“Coordinates for what?” Calvin demanded.

“For us,” Silver replied.

“To *dowhat* ?”

Dr. Silver turned to him and smiled a frightening smile. “You wouldn’t believe me if I told you.”

~

“That’s fifty more incoming!” Goldie snapped, her adrenaline raising her voice. We’re being smothered!”

“*Watch it, Wasp nine—*” a voice had rang out, but quickly went quiet, and on Goldie’s screen, she saw the telltale signal of a fighter being destroyed... the fourth in as many minutes. The second carrier already loomed large in her view, and the fighters it bore were entering the field of battle in numbers they couldn’t hope to match.

“All Wasps, pull in! Close quarters on Verdant!” Goldie ordered, narrowly avoiding a line of tracers and pivoting around to narrow her defensive angle. Hunter’s Wasp followed her, her normally-talkative wingman now limiting his comments to clipped responses and commands. “Watch the northern hub!”

“*How close?*” another pilot asked.

“Put it on the deck! The closer the better!”

~

“I have full charge!”

“Thank you!” Silver called out, spun about, and cried, “Emitter control?”

“We’re hot! Focus is optimum!”

“Anytime anyone in this room wants to tell me what’s going on,” Calvin said coldly, “feel free...”

“Almost there, Doctor,” Silver assured him, a strange look on her face. Whatever she expected to happen, she expected it to be phenomenal. “Gentlemen, initiation begins on my mark... *Mark!*”

Calvin was instantly aware of a high-pitched tone, coming from seemingly everywhere around him. Before he could ask about it, it rose in frequency, until it was beyond his hearing, but not quite beyond his ability to sense its presence. And then that sense, too, went away.

A technician called out above them: “Firing in three.”

Calvin repeated, “Firing?”

~

In CnC, Julian was brought up short when he became aware of a high-pitched tone, coming from seemingly everywhere around him. Before he could ask about it, it rose in frequency, until it was beyond his hearing, but not quite beyond his ability to sense its presence. And then that sense, too, went away.

He spun about, and realized by the expressions he saw that everyone else in CnC had heard the same thing. “What the Hell was that?”

~

“Two.”

~

Goldie dipped to port to avoid a communications blister on the northern hub, a moment before she heard a high-pitched tone. Thinking her earphones had malfunctioned, she yanked them off, only to realize that the sound was coming from seemingly everywhere around her. Before she could react, it rose in frequency, until it was beyond her hearing, but not quite beyond her ability to sense its presence. And then that sense, too, went away.

She was surprised by Hunter’s voice. “*What the Hell was that?*”

~

“One.”

~

High in orbit above Earth, the carrier *Puerto Rico* roared along its course to the Verdant satellite. The fighters and the carrier *Dominica* had already done their job of minimizing the damage done by the satellite’s fighters, and they expected to have minimal trouble approaching Verdant’s central core and entering the zero-gravity docking bays directly.

The commander of the *Puerto Rico* was suspended on the bridge, his hands gripping the support struts to keep him from floating away, as his staff worked around him. On the tactical column in the forward end of the bridge, they watched their approach to Verdant with calm satisfaction.

Suddenly, the column blinked. When the column recovered, just a second later, the image of Verdant had disappeared, leaving nothing but Raptors in view.

“Display malfunction!” the commanded barked. “Get it back up!”

There was frenzied activity at a workstation to the side of the bridge. Then the soldier at that workstation reported: “Sir, I have no malfunction here.”

“Look at the display, Donat,” the commander growled, waving a hand at the column. “Get my display back!”

“Sir, all inputs check out! The column is functioning one hundred percent!”

“Then you want to tell me,” the commanded demanded, “where the Hell is the Verdant?”

~

*“Where did all the fighters go?”*

“I was wondering the same thing,” Goldie said slowly. As soon as she had realized she could find no more fighters on her screen, she had throttled the Wasp back and put some distance between her and Verdant. She checked her equipment again, and her mouth hung open. “I have only three fighters, besides our own. I have no carriers. And I don’t hear any chatter from below...” She looked down at Earth, and after a moment, looked back at Verdant. Goldie, like any other orbital pilot, had a good sense of direction, and a good grasp of her surroundings, and she immediately knew something had happened. Something impossible.

She voiced what she could not believe. “The Earth...*moved*.”

“Yeah,” Hunter replied. “*And why does it look so weird?*”

## 23: Translated

The room was bathed in a dark red glow, as it had been since Yellowstone, but after so many days of it Sergei didn’t even notice anymore. He sat in the living room, where the sheer white drapes allowed in the full redness of the ashy sky, and felt listless. He had been listening to the news reports all evening, and he now felt simply drained. Even now, the reports continued to drone on, but he had long since tuned them out.

*“We still do not have confirmation from any source that debris from Verdant, or the satellite*

*itself, has been sighted entering the atmosphere... but we also cannot get confirmation that it is still in orbit. All com signals from the satellite have simply stopped transmitting, according to officials, and no optical equipment has managed to locate the satellite anywhere. Already, we're receiving word from overseas news agencies that the United States is being accused of using some experimental weapon on Verdant, and has in fact destroyed the satellite. The High House publicly denies these allegations... however they state they are also in the dark regarding the status of Verdant. Denver has also not yet recalled the fighters and troop carriers sent into orbit to stabilize Verdant and Tranquil, citing the threat posed by both satellites, and the allegations that Verdant has developed a secret weapon of its own, has yet to be answered to the government's satisfaction. It is presently estimated that at least 250 American citizens were aboard Verdant when it went dark...* ”

A noise at the front door roused him. He heard a click, and the telltale sound of the door opening, and slowly, he levered himself out of the sofa. He trudged towards the entry, which was hidden from the living room by a privacy wall, but it didn't matter. Only one person would be coming in.

A moment later, the door closed, and Anise Lenz stepped around the corner. She saw Sergei approaching her, and she hurried over to him, and folded herself into his arms.

Sergei spoke first. “I’m glad you made it home. I know the trains are running slow with all this ash...”

“I didn’t think I’d get here until tomorrow!” Anise said, and kissed him warmly. Sergei barely seemed to be able to muster up any energy for her, which drew her up short. “Are you okay?”

Sergei’s shoulders sagged. “Been listening to the news,” he said simply.

“So have I... what I can get, anyway,” Anise agreed. “They say Verdant threatened to drop bombs on the U.S., and we attacked. The last I heard, they said Verdant is *destroyed* .”

Sergei shook his head, but it wasn’t really *no* . “There was no sign of an explosion. There’s debris reported worldwide, but so far nothing is confirmed... they’ve all been labeled as hoaxes or hysterical claims. There’s no sign of anything de-orbiting or crashing. It didn’t just blow up.”

“Then... what happened to it?” Anise looked up at the ceiling as if she could look through it, all the way to orbit. “What happened to my daddy?”

“I don’t know.”

~

“We still don’t know, Ma’am. Every sensory instrument we have is pointed up there, and no one can locate Verdant. We’ve even flown fighters directly through its original coordinates. It’s just not there.”

The man speaking was wearing a general’s multiforces uniform, and he stood at-ease with his hat tucked under his armpit, yet he still gave the impression of being at attention before the Vice President. Lena Carruthers frowned at him, but it wasn’t so much in anger, as much as it was in confusion. “How can it possibly *not* be there? Those things can’t *go* anywhere... and even if they could, they sure can’t go anywhere *fast* !”

“We’re trying to ascertain if something else happened to the satellite,” the General explained.

“Like what? That they blew themselves up? Or that they just turned out the lights and drew all the shades?”

The man in the corner of the room threw a glance at Carruthers, but said nothing. Brandon Kang, her Chief of Staff, had accompanied the General into the executive office, after similarly exhausting every avenue to ascertain what had happened to Verdant. Carruthers’ sarcastic response to the General did not bode well for the mood in the building, and he knew it. But there wasn’t much he could do about it.

In the meantime, Carruthers was telling the General, “So help me, if this is the result of some super-secret weapon your people deployed on that satellite without my knowledge, I’ll have you all loaded onto the next waste rocket scheduled for the Sun! If I find out you people have killed the President, there’ll be no hole on this planet deep enough for you to hide from me! Find that satellite! Dismissed!”

The General gave the barest nod of his head, turned, and strode wordlessly out of the room. The stiffness in his back was evident, but Carruthers gave no indication that she was sorry for her response. Once the door closed behind the General, she turned to Kang.

“Brandon, you’d know if this was some sort of weapon,” she said, almost voicing it as a question. “We’d know. *We’d know!*”

“It wasn’t one of ours,” Brandon assured her. “That much is certain. I doubt it would be someone else’s weapon that we wouldn’t know about... especially since it was only used on Verdant. But without remains to examine... I mean, you saw the video. One second it was there, and the next...”

“Yes,” Carruthers said, turning away and leaning heavily against the desk. The video from the troop carrier had already been sent to them, and they had watched it repeatedly, trying to make sense of the abrupt disruption of the video, a split-second *pop-flash* of static much like that caused by an electro-magnetic pulse, followed by... an empty space where Verdant, and some of the fighters in its vicinity, had been a moment before. There had been no inbound missiles from the fighters or carriers, no visual artifacts or shock-waves, and no other signs of violence directed at Verdant. “Nothing just... *vanishes* like that! But nothing explodes like that, either!” She looked over her shoulder at Kang. “What does that leave us with?”

“Questions,” Kang replied. “But we’ll find the answers.”

“They’d better be good ones. The world already thinks we did this. Bad enough that freighter disabled Tranquil right in front of our people. If we can’t prove we didn’t cause this, too...” Carruthers looked out of the camouflaged window at the grounds surrounding the High House. The night traffic was even more sparse than usual, due to the disruptions caused by the ash layer. The night had become a blessing in the last few days: The daytime sky was a now-perpetual red that was beginning to make her eyes hurt whenever she looked at it. But even at night, the lighter ash that blew through the air created a dark fog that limited visibility, and made everything seem as if it was trapped in a small bubble of reality, all alone and surrounded by nothing. Not that much different than being in space, she imagined.

Lena Carruthers looked at Kang sadly. “This is not the country I wanted to be running, Brandon.”

“Of course not,” Kang replied, thinking to himself: *No one wanted you to run a country... any country.* “But with the President gone, and we have to presume dead, the helm is yours now. We’d better figure out how to make the best of it.”

~

“I want all department heads to check in directly with CnC, full damage report checks! Do a level-two diagnostic check on all equipment in here! I want to know what’s going on!”

Julian shouted and stalked angrily through a CnC that was in a state of pandemonium: Technicians struggled over workstations that had gone black, or were flashing and flickering with conflicting, nonsensical data; a few people had the top panels of their workstations open, looking for burned-out components; the main workstation in the center of the room was flashing like a frenetic Christmas display, readings that constantly changed, rotated, blanked out, then ran through the chaotic pattern again and again; the main display column was literally a tankful of static, mirroring the sound coming out of the room speakers; and the GLIS had gone silent.

He stopped at one of the few workstations that was closed and operating, though probably not optimally. “Chet,” he asked of the technician seated there, “has our orbital status changed?”

“Sir, I just don’t know,” the technician replied. “None of my readings make sense, and everything keeps trying to reset itself over and over...” He shrugged helplessly. “I can’t get it to stop!”

“Keep working on it,” Julian advised quietly, and moved on.

The door to his office opened, and Reya charged out of it. “The display in your office is out, too,” she said, hooking a finger over her shoulder. “I’ve never seen anything like this!”

Julian cursed loudly. “I need to know what’s going on outside! Try again to get our fighters on the com!”

Reya rushed over to one of the workstations, only to find it opened and a technician waist-deep inside it. With a frustrated growl, she searched desperately for a workstation that would give her an outside line.

There was an urgent rap on the glass doors sealing off CnC. Julian spun about to see Aaron Hardy on the outside, his fist poised over the glass. He pointed at the security guard. “Open us up!” The guard jumped to the door controls, and after a moment, the doors started to slide open. *Thank God the power is still functioning*, Julian thought, as Aaron slipped through the doors and rushed into the room.

“What’s going on! I thought maybe you were hit!—”

“Everything was hit,” Julian replied, “we just don’t know with what! I thought this facility was supposed to be hardened enough to handle an EMP.”

“It is! The electrics are still on, aren’t they?” Aaron looked about the room. “Whatever it was, it wasn’t an electro-magnetic pulse.”

“Then what—”

“Julian, we’re getting some coms back!” Reya dashed up to him, holding a handheld com unit. “It’s patched through to tactical. I have the fighters!”

Julian took the com from her. “This is Verdant CnC. Ranking Wasp outboard, report in!”

After a moment, there was a hiss from the com, then a voice. “*This is Wasp four, Lt. Goldie Maina reporting.*”



“Lieutenant, CnC is blind at the moment,” Julian stated. “Until we get our systems back up, you’re our eyes. What’s going on out there?”

*“Sir, we’re as confused out here as you are in there,” Goldie reported. “One second, we’re dogfighting fifty Raptors... the next, the Raptors are gone, the carriers are gone, and... I know how this is going to sound, sir, but... Earth moved. And it looks different.”*

Julian looked at Reya and Aaron, who returned his confused looks. “Back up, Lieutenant. The fighters and carriers: Were they destroyed by something? Did they de-orbit?”

*“Neither, sir. They just... vanished. There are now three Raptors out here with us, and they’ve broken off their attacks... they’re maintaining station a kilometer away. But the rest of them... it’s like they were never here.”*

Julian shook his head in confusion. “What about Earth? What do you mean, it moved?”

*“As in, it was in one position in the sky, relative to Verdant,” Goldie replied, “and now it’s in a different position. Or maybe I should say, it’s like Verdant, and us fighters, changed our orientation with regard to Earth. But if we did, we all did it at the same time, instantaneously, with no sense of motion involved.”*

Julian turned to look at Chet, who returned his look with one of utter confusion. “How does Earth look different?” Julian asked.

*“Well, we seem to be higher in orbit, because it appears smaller from here. And I think Yellowstone may have erupted again, because the sky is redder than before. I can’t make out any land masses, the ash cloud seems to be covering everything.”*

As Julian listened, technicians came to Reya and spoke to her in low voices. When Goldie seemed to be done, Reya put a hand on Julian’s arm. “Some systems are coming back,” she said, “but not all of them make sense.”

After a moment, Julian nodded, and handed the com back to Reya. “Have two Wasps maintain station outside for visual info. Try to coordinate getting the others back inside.” Reya nodded and began speaking through the com, as Julian moved to a workstation that a technician had just closed back up. It was a communications station that normally monitored com traffic from the Global Weather Service. “Is it back up?”

“Sir, the board’s working,” the technician replied. “It’s receiving properly. But it’s just not getting anything from the GWS. They’re off the air.”

“That’s...” Julian looked around to the other stations. “Is anyone else getting com traffic from the ground?” No one responded. “What about the other satellites? Or the lunar beacon? Is anyone getting anything at all?”

“Sir,” one technician called out, “Wendy and I are both getting this one signal from the ground.” Julian approached the tech, and looked from him to the girl at the adjoining station. “We’ve both confirmed the signal is from the ground. We just can’t figure out what it is... it’s nothing I’ve ever heard, and it’s not coming up in our databases.”

“Voice?”

“Data. But I don’t know what language or code it’s in.”

Julian looked around the room. “Does anyone get voice?” A few heads shook, but mostly everyone stood or sat stock still. As his eyes roved the room, he saw Aaron throwing a hard stare across the room. He followed his gaze, and saw he was fixed upon Kris Fawkes. Julian could tell some silent exchange was happening between them, a mutual animosity... or distrust. At that moment, Kris seemed to realize Julian was looking at her, and her eyes turned in his direction. He locked eyes with her, and after a moment, strode over to her.

He moved close to her, and in a low voice, said, “Miss Fawkes, if you know that this was some kind of weapon that was used against us, now would be a good time to speak up.”

Kris looked at Julian with a sick expression. “I swear to you, this is nothing I’ve ever seen or heard of.”

Julian regarded her closely. “Do you think this is an American weapon?”

Kris looked about the room. “No, but...” her voice trailed off, and she shrugged helplessly. Julian studied her face a few seconds more. Then he moved off, satisfied she was not lying to him. She was as confused as the rest of them.

“I have external camera feeds,” a technician promptly announced.

Julian turned in that direction. “Let’s see what you’ve got.” By the time he reached the workstation, the technician had an image on his screen. What appeared to be Earth, but redder and more distant, filled about half of the screen. Julian peered at the image, trying to make sense of it. “Is it a distortion? Why does it look smaller? Are we in a higher orbit?”

“I don’t know, sir,” the technician admitted. “None of my positioning data make sense.”

Julian glanced at the main workstation. “Can you transfer that to the main column?”

“Hold on,” the technician said, and after a moment working on his board, the main workstation’s display column flickered to life, displaying a larger, more detailed view of the image on the tech’s workstation. Julian approached it, as well as Aaron and Kris, while Reya kept it in her vision as she continued to speak over the com.

After an extended period staring at the globe below, Julian finally proclaimed, “That just can’t be Earth.”

“No, it isn’t.”

The voice, which emanated from across CnC, brought Julian and the others about. Dr. Jacqueline Silver, Dr. Calvin Rios, and Dr. Valeria Epstein stood at the entrance to CnC, peering about at the slowly-recovering chaos around them. Then they walked in, Dr. Silver in the lead, heading directly towards Julian.

Julian could see from Dr. Silver’s expression that she seemed to know something... although he wasn’t so sure of that from the faces of Calvin and Valeria. “Dr. Silver, do you know what’s going on? What happened to Earth?”

“I do,” Silver replied confidently. “And for the record, nothing ‘happened to’ the Earth.”

Julian glanced at the image in the column. “Then just what, exactly, am I looking at, Doctor?”

While Calvin and Valeria exchanged nervous glances, Dr. Silver just smiled. “This will take some time to explain. Why don’t we move to the conference room?”

~

The conference room just around the corner from CnC seemed crowded with all three doctors, Julian, Reya, Aaron and Kris inside. Everyone sat, and Dr. Silver seated herself on the opposite side of Reya from Julius.

“To begin with, Ceo,” Dr. Silver started, “I need to apologize for keeping everyone in the dark as I have. Only my assistant, Mr. Chiu, was fully aware of what we were working on from the beginning, and I kept my staff’s knowledge limited only to details of what pieces they were working on. Even Mr. Hardy was not aware of the real nature of this project.”

Julian glared at Hardy, who blinked under his gaze. “Julian, I swear, it was supposed to be... everything she showed me...”

“We’ll deal with that later,” Julian said, and turned back to Dr. Silver, leaving Aaron to shrink into his seat. “Now, Doctor, tell me what you’ve done.”

“Simply put,” Dr. Silver replied, “I’ve gotten Verdant out of harm’s way, at least for the moment. We’ve managed to develop a new technology that has allowed us to get Verdant out of Earth orbit and our imminent crisis.”

“Out of orbit?” Julian demanded. “Impossible! Verdant doesn’t have the propulsive power to fly anywhere!”

“Very true,” Silver nodded. “We didn’t ‘fly’ anywhere. Nevertheless, we are no longer in Earth orbit.”

Julian followed what she was suggesting... but simply didn’t believe it. After turning the options over in his head, he finally said, “Bull! That’s Earth! Something’s happened to us, to our orbit...” he stared at Silver, who returned his gaze impassively. “You can’t be serious!”

“Yes, I am,” Silver replied. “That planet below us is not the Earth. It happens to be Mars.”

“Bullshit,” Reya muttered, and reached for a control panel on the conference table. A moment later, a wall screen activated, and displayed the planet that was displayed in CnC’s main column. They all stared at the planet below... and slowly, what didn’t make visual sense to them before, could now be seen clearly under a new light... they realized they were not looking at a reddish ash cloud blanketing the surface, but the surface itself... layers became shadows, and shadows became geologic features...

“Oh...*shit*,” Reya whispered.

Julian realized that Calvin and Valeria were also staring at the image, slack-jawed. “You two didn’t know, either?”

Calvin turned to Julian and shook his head. “Ceo, I’m sorry, but I had *no clue*. I thought Dr. Silver was

trying to further her freight experiment, when I saw the equations. . .”

“What equations?”

Valeria volunteered, “The ones she had me working on, sir. I mean, they were similar to the freight project, but—”

“In fact,” Silver cut her off, “I had nine departments working on the supposed freight project. It just so happened that the nature of the experiment seemed so well-suited to a freight handling system, that it provided a good smokescreen to labor under. No one would have had any idea that the cover story was anything more than a blind. . . not my own people. . . or even Mr. Hardy. I had originally hoped to have everything ready to present to you in just a few weeks. Unfortunately, the Yellowstone Caldera forced me to accelerate our timetable.”

Reya’s eyes bulged suddenly. “Are you telling us, this thing you did. . . it was *still experimental*?”

Dr. Silver put out a hand to calm her. “I promise, we ran full simulated life tests, and there were no problems—”

“Shit!” Reya heaved up out of her chair, her arms wrapping about her torso. “You used some experimental process *to move us to another planet!*” She turned to Julian. “Can I kill her now, please, before my arms fall off?”

“Get in line,” Julian said menacingly, and came up out of his chair. Dr. Silver stepped back in barely-concealed alarm when he moved in her direction. . . until she realized he was heading for the door. “Everyone stay here!” he barked. Then he walked out of the conference room and around the corner into CnC.

When the staff saw him enter, they looked to him eagerly, hoping to get some answers to their questions. Judging by the look on a few of their faces, Julian suspected some of them were already figuring some things out. No wonder, he thought, as he glanced at the image of what he now knew to be the planet Mars, displayed in the main column.

Instead of answering their questions, however, Julian approached the technician at the tactical workstation. “Order in all outboard Wasps, immediately. Then open a frequency to those three Raptors. Tell them that the fight is over, and they have no base to return to. Tell them that we are clearing them to land on Verdant. Tell them they will not be considered prisoners of war, nor are they under arrest. Just convince them to come in before their air runs out. Understood?”

“Yes, sir,” the technician nodded.

Julian returned the nod, then looked to the rest of CnC’s staff. “Anyone calls and asks, tell them that we’re still trying to figure out what happened. As soon as things are clear to me, I’ll be passing that information on to you, and the rest of Verdant. Understood?” No one questioned him, and he nodded. “Carry on.”

He returned to the conference room to see Reya on the far side of the room, still looking angry and out-of-sorts. He went to Reya first. In a low voice, he asked, “Are you feeling all right?”

Reya glared at Dr. Silver as she spoke. “She *says* I’m fine, but. . .” She looked up at Julian. “I feel *violated*.”

Julian nodded. "On a lot of levels. I know. Try to relax. But if you feel ill, let me know immediately." He started to lead her back to her chair, but she resisted, clearly wanting to remain where she was. After a moment, Julian relented, and returned to his chair.

"All right, Doctor," he stated, "I think it's time you explained to us how you managed to move us to another part of the solar system."

"Well, strictly speaking, Verdant did not 'move'," Dr. Silver said. "'Moving' is a process of passing through physical space, from one location to another. In physical terms, we didn't actually do that."

After a moment, Julian said, "Congratulations, Doctor. You've lost me that fast."

"I'm sorry," Silver nodded, "but it's a distinction that matters in terms of quantum mechanics, and the very reason we were able to do what we did. Our system is capable of manipulating the quantum translation of energy and matter."

"Quantum... *translation*?" Julian repeated. "What is that?"

"It is the result of manipulating the quantum frequency and absolute orientation of an object," Silver explained. "Doing so causes that object to translate its position in space to a different position."

"Funny: It sure looks like we *moved* to me," Reya grumbled from across the room.

Julian held up a hand in frustration, and turned to Calvin. "Dr. Rios, you're supposed to be the expert at explaining complex science to laymen like us. I don't suppose you'd care to give it a try?"

Calvin looked about the room balefully, and sighed. "Of course... though you understand that quantum mechanics isn't my field of expertise, either." He looked at Dr. Silver. "But I'll explain what I can."

"Please," Julian urged.

Calvin nodded. "Well, to begin with: Quantum physics, or Quantum mechanics, is the science of what happens to the particles that make up atoms, their components, and things even smaller than that. Some of them are very familiar to us, like protons, neutrons and electrons. Other particles, like leptons, mesons and bosons, are largely inferred by experiment and theory. But that doesn't prevent us from actually manipulating them.

"In fact, our electronic and photonic systems are based on quantum effects that we have discovered through cause and effect, even though we can't always see the actual particles in action. It's a lot like not being able to physically see a train, but being able to infer its size, weight, movement and velocity based on data we collect along specific locations on the tracks. That's how we delve into quantum mechanics."

Julian nodded. "I follow. Go on."

"Okay: It was discovered in the late-twentieth century that all matter and energy has a common quantum frequency, or vibration," Calvin continued. "It's theorized that the vibration is part of the process that binds matter and energy together, allowing us to exist as physical entities, and not just clouds of individual particles floating around everywhere. And it has been established that the quantum vibration exists everywhere in the known universe, essentially the glue making everything in our universe work."

“Now, in the early-twenty-first century, an interesting fact about the quantum frequency was discovered: Scientists realized that the frequency was different in different parts of the universe. Further experimentation revealed that the difference in frequency was relatively uniform, from being the smallest wavelength in roughly the known center of the universe—the location of what we call the Origin Point—radiating more-or-less evenly outward to the largest wavelength, at the edges of the known universe. That means that the quantum frequency of objects closer to the Origin Point is smaller than the frequency of objects further away.

“Now, if you listen to sound coming out of a speaker, you know that the sound is louder up-close, and quieter further away. It’s possible to measure the difference in sound in different locations, and estimate the level of sound you should encounter at any specific distance from the speaker. In the same way, with a careful examination of the cosmic background radiation, you can determine what the quantum frequency of a particular radius from the Origin Point should be.”

Calvin paused there. “How am I doing?”

“Okay so far,” Julian told him.

“Good. Now, in the late-twentieth and early-twenty-first centuries, scientists were trying to figure out how some of these quantum particles moved... because some of them didn’t seem to travel through space at all. Through experiments that generally used lasers to bombard these particles with excess energy, it was observed that these particles would seemingly disappear in one location, and reappear in another, but without actually moving through the physical space between.”

“Whoa,” Reya said. “If you don’t move through physical space... what was it, some kind of *other dimension*?”

“Some scientists theorized exactly that,” Calvin replied. “They thought the particles had entered and traveled through another type of space—they liked to call it ‘hyperspace,’ back then—”

“*Brane-Boystuff*,” Reya moaned.

“—and they would come out of ‘hyperspace’, back into our own space,” Calvin went on. “And in so doing, they had covered the distance between the two points faster than light could travel, seemingly breaking the laws of relativity in the process, and sparking a brand new branch of theory that would be built on top of Einstein’s original Unified Theory... but, enough about that for now.”

Calvin took a deep breath, gauging his audience to make sure they were still with him. He glanced at Valeria and Dr. Silver, both of whom gave him an encouraging look.

“It took years of puzzling over how and why the particles seemed to jump from one point to the other,” Calvin continued. “Then it was discovered in the mid-twenty-first century that the particles had different quantum frequencies before and after their jump. They determined that the energy from the lasers wasn’t, in fact, moving the particles at all; the lasers were actually altering the particle’s quantum frequency, depending on their settings. Whenever that happened, the particle jumped.

“Now, since the particles weren’t actually moving through three-dimensional space, scientists didn’t like to refer to what they did as ‘movement’. For awhile they called the process ‘quantum tunneling’, even if they didn’t know what the particles were tunneling *through*. Eventually they determined that the change in quantum frequency literally forced the particles to change their location to one that matched their new frequency. It didn’t actually *move* there... it just *was* there, when it *used to be* here. These days, that is

referred to as ‘quantum translation’.”

“Translation,” Julian echoed. “Is this where we come in?”

“Apparently so,” Calvin nodded. “Dr. Silver has used the principle of altering the quantum frequency of Verdant... and its immediate surroundings, judging by the fact that the fighters are still with us. When she did that, we were translated from Earth orbit... to here.

“And, unfortunately,” Calvin concluded, “my expertise ends there. I know now that Dr. Silver used a series of nine gigacapacitors to generate the frightening amount of power needed to operate her... translation system, and move an entire satellite. But how that system managed to affect every particle on Verdant at once, or put us conveniently in orbit of another planet, is way beyond me.”

Julian looked at Dr. Silver. “Did he describe the process accurately, Doctor?”

Dr. Silver looked at Calvin and smiled. “Accurately and eloquently. My compliments. The last part, how the system affected everything at once, is essentially due to the tuned light emitters we used to alter the quantum frequency being focused through a heavily-doped crystal that evenly disperses the frequency throughout Verdant. Naturally, there’s more to it than that, but that’s it in a nutshell.”

“I may understand it,” Reya pointed out, “but I still don’t like it. I’m probably sterile now—not that that’s a loss in the big scheme of things, I suppose. But there’s still one other little detail that must be discussed.” Reya finally pushed off from the far wall and approached the table, leaning on it with both hands and bending forward, so that she was as close as she could get across the table to Dr. Silver.

She paused for emphasis, making sure the room was silent and waiting for her next words.

Then she shrieked, “*We’re not over Earth!*”

## 24: Assessment

Word was beginning to spread throughout Verdant: *Something had happened to the Earth.*

This word was prompted by the complete and utter cessation of com traffic from Earth, including newsfeeds, commercial traffic, and personal communications that could get through the strangled com network. There were also a few video sources outside, and some quickly confirmed that Earth was no longer there. Others paradoxically reported it was there, but something terrible had happened to it.

A few particularly frightened people claimed that the planet they were orbiting was, in fact, Mars. None of them were being taken seriously, however. *How could they possibly be over Mars?* And before long, all publicly-accessible outside video was cut off by CnC, citing inaccurate data causing malfunctions, and the need to recalibrate systems.

That, at least, turned out to be true, though it had taken a few of Dr. Silver’s engineers to realize it, and begin passing the word. Much of Verdant’s systems, monitored and passed through the GLIS, depended on time and orientation signals that were received from Earth coms, or from visual observation of the Earth, Moon, Sun and stars. Once Verdant was no longer in Earth orbit, those systems went into utter

confusion, and in the face of an impossible error in observed data, many of them simply shut down, causing cascading failures in many other systems that depended on their time- and orientation-based data to function.

Frighteningly enough, the list of crashed equipment included a few of the workstations that Dr. Silver's team had used for Verdant's translation... a fact that, when revealed, turned out to be just one more of a litany of Reya Luis' loud and virulent complaints regarding the unauthorized and unconsidered actions of Dr. Silver's team, and of the intelligence, sanity, and parenting of Jacqueline Silver herself.

This information was passed to CnC first, and armed with that new information, many of the CnC workstations that had either crashed, or seemed to have crashed, were brought fully or partially back online. Julian finally had to remove Reya from the conference room, partially to prevent her from physically assaulting Dr. Silver in blind rage, and after spending an extensive amount of time calming down his Executive Officer, set her to the task of supervising the reprogramming of the GLIS to be able to make sense of the new sensory information and automatically reset itself, followed by the restarting of their systems, and the subsequent communicating to the rest of the satellite to get other systems back online.

All during the process, Reya was continually asked by CnC staff and the people they contacted throughout Verdant, what had happened. To each of them, Reya responded: "Three things in life never change: Death; taxes; and mad scientists."

~

In the first hour after Verdant's systems began to come back online, Calvin's com buzzed.

He removed it from his pocket, and when he looked at the readout on its screen, he got a shock: He hadn't realized it was almost two in the morning! Then he got his second shock, when he saw the party identified at the other end as "North Twelve Hospital." He keyed the com quickly. "Hello?"

*"Dr. Rios? This is Dr. Adam Jervis at North Twelve Hospital. I've been trying to reach you for hours—"*

"I know, the coms problem," Calvin cut him off. "What's wrong? What's going on?"

*"We have Maria Rios here, Doctor."*

Calvin thought his own heart skipped a beat for a moment. When he'd spoken to Erin, hours ago, he'd told her to stay home until Maria returned. He hadn't heard from either, and he realized only then that he had assumed it was because Maria had come home, and the two of them had been at home waiting for him to return...

"Is... is she okay? What happened?"

*"Mrs. Rios apparently suffered a mild heart arrhythmia while Verdant was under attack," the doctor reported. "She was discovered on a park bench, where she could not be revived, and brought here."*

"Oh, God," Calvin moaned.

*"She's fine now, Dr. Rios,"* Dr. Jervis told him quickly. *"We found her medical data about her*



*irregular heartbeat, and we kept her stable until it resumed a normal rhythm. It really sapped her energy, though, so she's resting now. We have her on an IV to get her strength back up. Doctor, do you know why she was out when she had her arrhythmia?"*

"Erin," Calvin croaked. He found he was on the verge of hyperventilating. *Erin. She's all alone...* "She wanted to get her out of school, but she couldn't reach her. I'd told her to stay home..."

*"I understand,"* Dr. Jervis replied. *"So she most likely got too excited, and that probably set off her heart rate. We'll ask her when she wakes up, of course, but for the moment, I'd guess that's what happened."*

"I... I agree," Calvin said. "If she wakes up, please call me, and tell her to stay there until I can get there. Listen, I need to call my daughter..."

*"Of course,"* Dr. Jervis said. *"You have my contact info, now. We'll call with any new news."*

"Thank you, Doctor," Calvin said, and hung up. Then he called his home.

*"Daddy?"* Erin's voice was a combination of grogginess and concern... understandable, considering the hour.

"Yeah, honey. I'm so sorry I haven't been able to get home... I only just found out that your mother wasn't home yet."

*"Is Mom okay?"*

"Yes," Calvin told her, "but she suffered from one of her heart irregularities, while she was out looking for you. They took her to North Twelve Hospital, and she's there now."

*"She's in the hospital? Because she was looking for me?"*

"Now, Honey, don't be that way, it's not your fault. Anyway, I spoke to the doctor, and she's fine... she's resting, and her heart is normal. I wanted you to know."

*"Oh... okay,"* Erin responded. *"Are you coming home soon, Daddy?"*

"I... don't know, yet," Calvin replied honestly. "You know all Hell's broke loose around here. I'm still at CnC, and I don't know when I'll be able to get out. But as soon as I can, I'll be there."

*"Daddy, what happened to Earth? Everyone I talk to thinks it was nuked or something!"*

"It wasn't nuked," Calvin replied quickly. "I'm pretty sure Earth is fine. But the situation is... complicated. Hopefully, there will be an explanation for everyone soon. I may even be part of it. But try not to worry about it: For now, Verdant isn't under attack, and that's a good place to be. If anyone asks, tell them I said so."

*"What about Mom? Should I go see her?"*

"Well, she's sleeping now, so there's no need," Calvin said. "Maybe in the morning. In the meantime, go on back to sleep, and don't worry about us. We'll all be back together soon."

*“O-okay. Thank you for calling. I love you, Daddy!”*

“I love you two, honey. Good night.” Calvin closed the circuit, and as he turned around, realized that Julian was standing nearby. “Oh... hi.”

“Is your wife going to be all right?” Julian asked. “I couldn’t help but overhear.”

Calvin nodded. “Sounds like it. She’s had that irregular heart since I’ve known her. It can be tough on her, it gets her adrenaline going, takes all her energy, and wears her out quickly. On the other hand, she delivered Erin through it, and came out fine. He’s tough. She’ll be okay.”

“Good.” Julian put a sympathetic hand on his shoulder. “I’m sorry our problem has kept you from your family. But we need to discuss some important matters.”

“Of course,” Calvin said, and allowed himself to be led back into the conference room.

Inside, Dr. Silver was still seated in the same chair, but she had been joined by Mr. Chiu, seated next to her. Aaron Hardy was also there, but Reya Luis was conspicuously absent. Calvin considered that was probably a good thing, considering how badly she had reacted to the news of their “translation.” Kris Fawkes was also there, watching everyone carefully but showing no inclination to participate in the conversation.

As they entered, Julian started speaking. “All right, we are in a unique situation here, as it was so colorfully pointed out by my Eo.” He gave Dr. Silver a glance that indicated that Reya’s feelings were at least partially shared by him. “Verdant is a satellite dependent on supplies and materials from Earth to survive... and we are no longer in orbit above Earth. Aaron, how long do we have before we are going to need our basic supplies replenished, or risk loss of sustainability?”

“Well, the good news is, we have at least three months at level three conditions, which we are already on,” Aaron replied, consulting a datapad. “Water might be an issue in three months. Our oxygen quality will hold out for at least four months. It’ll be the chemicals we need to sustain our agrosystems that will go first, though, so before the water gets scarce or the air gets thin, we’ll be getting mighty hungry.”

“The last time we talked about this,” Julian said, “we had five months at level three conditions.”

“That was before we moved an additional eighty million kilometers from the Sun. A lot of our power is supplied by external solar panels, including most of the power used for air and water filtration ... but at this new distance from the sun, the photovoltaics are already registering a seventy percent drop in input. That may necessitate our going to level two power conservation measures, to optimize available power for environmental maintenance.”

“Seventy percent!” Julian exhaled heavily. He turned to Dr. Silver. “I don’t suppose you gave that much thought when you moved us out here, Doctor?” She started to respond, when Julian added, “Excuse me... *translated*.” Silver reconsidered her response, and stayed quiet. “At any rate,” Julian continued, “it’s clear that we can’t stay here. We can go back if we want to, right, Doctor?”

“Yes, we can,” Dr. Silver replied immediately. “Lin tells me that other than the timestamp-related shutdowns, all our equipment came through translation in one hundred percent condition. We can reset our system to translate us back to Earth at any time.”

“Does that mean we’re going right back?” Calvin asked. “Just to remind everyone, we were about to be

boarded when we left.”

“Right,” Julian nodded. “So, for obvious reasons, we’re not going right back. But as we’re going to have to go back eventually, we need to begin the process of diffusing this situation, to make it safe to go back. The first thing we’ll need to do is contact Earth, to let them know we’re alive.”

“We’ll have to borrow some of the long-distance com equipment from research,” Aaron stated. “Most of our com equipment is short-distance, not suited to get a signal all the way back to Earth from here. But it’s do-able.” He considered a moment. “What do we say?”

“Hello, this is Verdant,” Silver said matter-of-factly. “The reports of our death have been greatly exaggerated.”

Julian grinned, perhaps for the first time in hours. “Droll, but otherwise, well-put. We have to assure them that we are alive, and that we plan to return to Earth and re-establish trade and relations.”

“But maybe before we do that,” Calvin suggested, “we should try to get some guarantees that we won’t be attacked when we return?”

“With all due respect,” Dr. Silver stated, “I doubt their situation will be any less dire when we return. So any ‘guarantee’ they give us won’t be worth its weight in aerogel. That... for the record... is why I took the steps I took. We can no longer trust in Earth to leave its hands off of us, even if it is obvious that it will mean our ruination as well as theirs. That much is evident, now, isn’t it?”

After a moment, Julian nodded. “Yes, it is.” He paced the room for a moment, while the others looked to him. When he lifted his head, it was to look across the room. “Do you have any suggestions, Miss Fawkes?”

Everyone turned to look at Kris, who seemed surprised to have had a question directed at her... or maybe she’d hoped she had become invisible to the participants. Either way, she seemed to collect herself quickly, and she looked at Julian directly. “I agree that we can’t trust the superpowers. However, ultimately, we have to go back to Earth for supplies, and they will know that. They will know that they can withhold supplies, and force us to do their bidding. We have very few effective bargaining chips. In fact, I can only think of one: This new drive system.”

“It’s not really a drive system,” Dr. Silver started, but Kris cut her off.

“Does it matter? What matters is what it’s *scapable* of. And I’ll remind you of what we were all concerned about when we thought we were talking about a freight system.”

Kris did not need to elaborate. Calvin himself remembered the sick feeling he’d had when he suspected Dr. Silver of arming one of her freight test-beds and sending it out... “You’re suggesting threatening them,” Calvin said aloud.

Kris inclined her head sadly. “It seems to be the best defensive weapon we have.”

“Speaking of which,” Julian said, “it wouldn’t be a bad idea to get busy again on the defensive system Dr. Rios proposed. Assuming, Doctor,” he directed this at Silver, “that you don’t see any reason why it can’t be made to work, given enough time.”

In response, Dr. Silver shook her head. “No I don’t. I agree, we should continue to work on it,

especially now that the immediate crisis is over.”

“Julian,” Aaron said slowly, considering his words carefully. “There may be another defensive option. Staying right here.”

Julian regarded him with confusion. “You already said—”

“I said we’d run out of supplies in a few months,” Aaron said. “But if we can get our supplies delivered to us...”

“Out here? How?”

“The same way we got here, through Dr. Silver’s... uh... y’know, we really should figure out what we’re gonna call the blessed thing.” He waved his hands at the non-sequitur. “Anyway, Jacqueline scaled this process up from two test-beds, to the entire satellite. We ought to be able to do something in-between.”

Calvin caught on immediately, and snapped his fingers. “Like a freighter!”

Everyone turned to Dr. Silver, who shrugged. “We could adapt the large test-bed to a freighter, yes. It would only need more power, and the proper equations to handle the appropriate change in dimensions.”

“Excellent!” Calvin smiled. “So we send a freighter back, and we can use that to get more supplies, while Verdant stays here out of harm’s way.”

“That sounds like a good beginning,” Julian nodded. “At the very least, it will buy us time to develop our defensive system before we return.” He looked at Silver. “Doctor, that’s your next task: A freighter capable of returning to Earth, and bringing supplies back to us here. And if you can, we may need to equip more than one ship with your... system.”

“Understood,” Dr. Silver nodded.

“Good. Aaron... Dr. Rios? We need to prepare a message to send to Earth, and we should do that next.”

“Julian,” Aaron said, “it occurs to me that we have citizens and visitors on Verdant that will want to go home, and some of our citizens were probably stuck on Earth. Surely we’ll have to make arrangements to return their people to them, and get our people back.”

“Of course,” Julian agreed. He turned to Kris. “Miss Fawkes, I have a task for you.” He approached her, and Kris stood up as he reached her. “I realize that you don’t officially work for the United States anymore, but you’re probably the best person suited to the task of speaking to the President’s staff, and explaining the situation to them. We’re going to have to arrange for the transportation of his staff, and all American citizens, back to Earth, and they will have to be involved in coordinating that.”

“I understand,” Kris said apprehensively.

Julian nodded. “Don’t worry. As of now, you are a member of the command staff... an official liaison from CnC, with all requisite diplomatic privileges and immunities. You’re working for me, now.”

Upon hearing this, Kris’ face went from surprise, to gratitude, to determination, in the space of a second.

“Thank you, sir. Should I go see them now?”

“Not yet,” Julian smiled. “Let’s work out our messages to Mankind first.”

~

Maria Rios was awake when Dr. Jervis entered her room. It was a little after seven A.M., and the daylights had already been brought up throughout the hospital. A small video monitor played next to Maria’s bed, and she had been watching it for some time. When she saw Dr. Jervis, she smiled.

“Good morning, Maria,” Dr. Jervis greeted her. “How are you feeling this morning?”

“I’m fine, thank you,” she replied, and gave him a half smile. “I always feel fine after an episode. Well-rested.” She nodded at the monitor. “But it seems like things aren’t much better around here, are they?”

“If anything,” Dr. Jervis admitted, “they’re even more confused. But that’s not why I came by. You have visitors.”

Maria quickly perked up. “Cal? Erin?”

“Yes,” Jervis smiled. “They’re waiting in the park for you. Considering your episode, I’d like to give you a power chair for your visit. Are you up for it?”

“Of course,” Maria replied brightly.

Ten minutes later, a nurse wheeled Maria out to the visitation park outside the hospital. Calvin and Erin were seated on a bench near the edge of the floor, overlooking Verdant’s interior. Erin saw Maria first, and heaved off of the bench and rushed over to her. Calvin followed, not quite as quickly as his daughter, but enthusiastically nonetheless. Maria stood up out of the chair to hug them both.

“Oh, I’m so glad to see you!” Maria said, caressing Erin’s face gently. Then she looked closer at Calvin. “Cal, you look exhausted! You’ve been up all night, haven’t you?”

Calvin nodded. “It’s been that kind of night. How are you feeling?”

“Oh, I feel fine,” Maria replied, sitting back into the chair in response to the nurse’s silent glare. “Honey, I’m so sorry, this is all my fault. I should have listened to you and stayed home. Instead, I ran right out to find Erin, and my heart lost control almost immediately. I sat down, and I hoped it would just go away, but it didn’t, and I just became so exhausted...”

“I know,” Calvin said, “I spoke to Dr. Jervis. But it’s all right, no harm done.”

“No harm!” Maria goggled. “I must have scared you two to death!”

“Actually,” Erin responded quickly, “yes, you did! But as long as you’re all right.” She reached down and hugged her mother, who responded warmly.

When they separated again, Maria looked at Calvin. “Cal, what’s going on everywhere? I’ve heard everything imaginable... Earth has been destroyed... Yellowstone has re-erupted and America is gone... Verdant is orbiting Mars... we’re all dead and in heaven... it’s crazy!”

“Well, I can confirm that something big happened.”

“Were you part of it?”

“Actually, I almost prevented it from happening,” Calvin said wryly. “Sometimes, I’m just not the sharpest knife in the drawer...”

“I’m sure you did your part.”

“Well, if you consider that my part was to be someone else’s distraction, I suppose so.” Not for the first time, Calvin reflected on the diversion of resources his force field project—admittedly given to him by Julian Lenz, but based closely on ideas he supported—had forced upon the sciences section, and what might have happened if that diversion had meant Dr. Silver’s system would not have been ready at the critical moment. Part of his discomfort was simple embarrassment, for being taken so thoroughly by surprise as everyone else had been. But there was also a small hit taken by his pride, at knowing he had not been the savior of Verdant, but merely a pawn in someone else’s game. Probably not for the last time, Calvin shoved all of that back into a dark corner of his musings, to sort through later. “But despite my efforts, it all worked out okay anyway.”

“Is this why you’ve been up all night?”

“Fraid so, honey,” Calvin replied. “But actually, Ceo Lenz is planning to address Verdant in...” he consulted his watch. “...just a few minutes now. It will answer most of everyone’s questions. In fact, we should see if we can find a monitor to watch it.”

“Will it explain everything?” Maria asked.

~

“You know,” Julian told Dr. Silver as they prepared for the broadcast, “I’m not saying ‘translated’ to them. Scientifically accurate or not, I’m just telling them we’ve moved.”

“I understand,” Dr. Silver nodded soberly.

~

Calvin considered his wife’s question. “Well... it’ll be a big help.”

## 25: Announcement

*“Citizens and visitors of Verdant. Please listen to the following message. It is important that you understand the events of the last twenty-four hours.”*

“Good morning. This is Ceo Julian Lenz. As most of you are no doubt aware, Verdant, along with her sister satellites, was just today under threat of forced occupation, by countries on Earth seeking refuge from the damage being done by the effects of the Yellowstone Caldera. This occupation would have

been disastrous for Verdant and the other satellites, all of whom are already at or over capacity for sustainable operations, and could not have maintained larger populations or demands on their limited resources. But those on Earth either disbelieved this fact, or simply dismissed it, and they came anyway.

“We had limited information from the other satellites, for various reasons, during this period of forced occupation. We do not know whether the occupation of Qing met with any resistance, as Qing is directly controlled by the Chinese government. We do know that a non-Chinese ship with refugees was forced by Qing to turn back to Earth, and unfortunately that ship crash-landed, with the loss of all passengers. We also know that Fertile’s occupation resulted in armed riots aboard the satellite, and subsequent loss of life. And we know that the chaos caused by a sky full of orbital military and civilian craft caused a catastrophic accident on Tranquil, which we believed resulted in the deaths of everyone in their Command and Control center. And despite that accident, ground-based craft continued to move to occupy Tranquil.

“At that same time, ground-based craft were also attempting to occupy Verdant. Ultimately, we would have stood no chance to deter the ground-based forces, and it was considered only a matter of time before we were boarded and occupied by hostiles.

“But while all of this was going on, a classified initiative was being developed by our sciences sections. At a critical moment, new and experimental systems were activated. The result of those systems’ activation was that Verdant has been removed from Earth orbit, and the threat represented by the hostile forces. At this moment, we are now orbiting in relative safety... over the planet Mars.

“We realize how absolutely incredible this sounds, especially as there was no sense of motion involved with our change of position. The process involved the complex manipulation of exotic properties of quantum physics, the details of which will be saved for another time. For now, I’ll just say that the process worked as expected, and we made the move from Earth to Mars with no mishaps or issues.

“It must be understood that, although the results were expected, this was an act of desperation, designed to preserve the integrity of Verdant, and the lives of its citizens and visitors. We would not have taken this step, if we thought there was any other way of preventing the assaults being directed at us. Verdant is not equipped to remain over Mars, so we can not consider this a safe or long-term refuge by any means. Therefore, we are already planning the process of returning to Earth orbit as soon as it is considered safe for us to do so.

“The Command and Control staff is actively preparing a message to be sent to Earth, with two goals in mind: First, to assure those on Earth that Verdant’s citizens and visitors are alive and well; and second, to make arrangements to return to Earth orbit under a flag of truce and a promise of no occupation, and resume our position as a sovereign nation under U.N. protection. We expect there will be negotiations involved in the process, so we have no way of predicting a timeframe or procedures to return to Earth at this time. Suffice to say, we will be doing everything we can to facilitate our return to Earth as soon as possible, and we hope Earth’s governments will be equally cooperative.

“CnC will schedule a press conference within the next twelve hours or so, to keep you informed, and to answer any questions you may have about our situation. In the meantime, we are maintaining Verdant at level three conservation restrictions for the present time. We ask you all to remain calm and do your jobs, and rest assured we will see this situation to its end. Thank you.”

~

After some deliberation, it was decided to send messages to Earth in a series, to assure it would not be

missed. An initial message would be sent, then repeated in more detail one hour later, because they expected that only a few people would happen to intercept the first message, and many would assume it was a hoax... but everyone would be waiting for the existence of a second message. Therefore, the second message would provide coordinates to locate Verdant in the night sky, using one or all of the orbital telescopes suited to the task.

“Maybe we should set off some kind of bright flash,” Aaron Hardy had suggested. “To make sure they can find us.”

“At this stage,” Julian countered, “they’d probably think we were shooting something at them. Remember *War of the Worlds* ? No, no flashes of light... just coordinates for them to use. They’ll see us.”

“What about the message?” Chiu asked. “Should we mention how we did what we did?”

“I’d recommend,” Dr. Silver suggested, “that we simply assure them we can do it again. At the moment, the operation of our quantum translation system may be the biggest bargaining tool we have.”

“‘Quantum translation system,’ huh?” Julian considered it. “Kind of long.”

“That’s what it is,” Silver shrugged.

“Doesn’t make any difference,” Aaron said, “if we’re not going to tell them about it. Call it ‘fairy dust,’ for all it matters, and let them puzzle it out.”

“Let’s table that for now. We need to write our message. Let’s get started.”

~

On Earth, the speculation as to the fate of Verdant was wild and unchecked. Everything from secret American weapons to sophisticated cloaking technology to divine providence was being proposed and discussed. News services duly mentioned all of them, and lively debate filled the airwaves.

The United States was at the center of every conspiracy theory. It was assumed by all parties that, whatever had happened to Verdant, the United States must have done it to them. The U.S. was already being directly blamed for the freighter that had crashed into Tranquil’s CnC, which conveniently made it easy for U.S. forces to move in and occupy it. Vice President Lena Carruthers, who had largely been acting through orders being sent from President Lambert aboard Verdant, was being attacked from two sides: While some believed she had acted incompetently, misunderstanding Lambert’s orders and accidentally destroying Verdant in the process; others believed she had acted deliberately, in order to destroy Verdant and kill the President, and thereby take over the country as President herself. In fact, Carruthers had barely participated in the attack, her Chief of Staff had been the one to pass the instructions on to the departments involved; and now, “Cocktail Barbie” was being referred to as “Black Widow Barbie,” as her tenuous house of political cards was being torched from every side. By doing virtually nothing, her political career was now over, and the parallels to an early twenty-first-century Governor and her bid for a White House position were not lost on—or unspoken by—the media and pundits.

Therefore, it was almost missed when a scientist reported to have received a message from Verdant... and as quickly dismissed as an attention-grabbing stunt. However, when a second, then two more scientists in different institutions, came forward and all presented the same message, serious consideration



had to be paid. As instructed, the scientists, and everyone else with powerful enough com equipment, tuned in one hour later to hear the supposed second message. When, an hour later, a persistent coded set of beeps were heard over the air—three short beeps, followed by one long beep, repeated ten times—it did not take long for com historians to identify the original Morse code for the letter “V”. Then the beeps ended, and a voice message began.

~

*“This is a message to Earth, sent from the satellite Verdant. Repeat, this is a message from Verdant to Earth. Underlying this message is the coded ident signal used to confirm our com identity. You will notice that the time stamp indicates new coordinates and distance in relation to Earth, which is significant. If you examine and train any high-powered orbital telescopes on those coordinates, you will find us in our current location. But in order to save some of you the effort, we will simply tell you that we are presently in orbit over the planet Mars.”*

“Good morning. This is Julian Lenz, Ceo of Verdant. I want to officially pass along my respects to the United Nations, and to any nation, organization and individual that is listening to this message. My first duty is to assure all of you that we are unharmed... all of Verdant’s citizens and visitors are alive and well, with the exception of the four Wasp pilots who perished in the process of defending Verdant from an unauthorized occupation attempt, just a few hours ago. We’re sure that our abrupt...*departure* from Earth orbit left you with many questions and concerns, which we intend to answer.

“The most important thing to understand, right now, is that we took the steps we took in order to preserve Verdant, its people, its integrity, and its sovereignty, which we fully intend to maintain. Any and all actions taken by Verdant, or by any nations with Verdant, must bear that in mind.

“Verdant, like the satellites Qing, Fertile and Tranquil, were established as sovereign territories by the United Nations in the 2100s. Those sovereign satellites were today under threat of occupation by a hostile force... not for anything we had done against any person, nation or to humanity... but because of our resolve to avoid being overrun by those who would undermine the satellites’ ability to function and stay viable and healthy. In the interest of self-preservation, Verdant has been working on protective technology for quite some time. When the existence of our work was revealed, it was assumed by other nations that we would use this technology for offensive purposes, and under that assumption, we were summarily attacked in order for other nations to take this technology for themselves. Well, we have demonstrated the inherently defensive nature of this technology by actually using it... and as a result, removing Verdant from the field of battle.

“However, Verdant is by no means secure in its present position. The satellites were never designed to exist away from Earth, the source of our life-giving supplies and materials, and we have no intention of remaining here over Mars. In addition, there are citizens of various nations here on Verdant, as well as citizens of Verdant that are presently on Earth, that wish to return to their respective homes... and we have no wish to keep anyone on Verdant against their will.

“Therefore, we will make arrangements to return to Earth, when we have an assurance that we will not be attacked or occupied by hostile forces, and that we have the U.N.’s agreement to protection of our sovereignty.

“We are still examining the safest and most effective means of returning to Earth, and we cannot at this moment provide a timetable for our return. However, we would like to accelerate the process of returning to Earth its citizens, as a gesture of our good will. In return, we hope you will see fit to allow us some much-needed supplies to be returned here, to sustain us until we are able to execute our return to

Earth. Therefore, we propose further dialogue, exchanged through the U.N., to arrange these details. It is our hope that we can put this terrible incident behind us, and resume our positions of safety and sovereignty as citizens of the united nations of Earth.

“We realize that real-time two-way communications will not be possible at this distance from Earth. Therefore, we will await your response on this frequency, and at that time, we will begin discussions as to how we should proceed. We wish you well, and hope to be back in the arms of Mother Earth soon.”

~

When the message was over, Gaston Lambert reached out and switched off the display screen. He glanced at Enu Thompson, who glared back under tightly-knitted brows and said nothing.

Then Lambert turned to the other chair in the office, where Kris Fawkes sat. She had arrived before the message had been sent, and despite her loss of American diplomatic credentials, had demanded to see President Lambert immediately. When challenged as to why she should be given access to Lambert, she said, “Do you really want to turn away an eye-witness to the event of the century?” She had duly been admitted, and after explaining that she had been part of the group that had consulted Ceo Lenz on the intent and content of his message to Earth, Lambert had requested her to stay until the message was broadcast.

Kris turned to regard the President evenly. She made every effort not to suggest an adversarial role, but she knew that after this morning, she was no longer considered an American diplomat. In fact, by deliberately disobeying an order, Lambert could by all rights have her arrested (though the worst they could do to her would be to lock her up in one of the compound’s guest suites... hardly a punishment, by any means). But by arriving at the compound, she was also demonstrating that she had the support of Verdant’s government, and she was sure Lambert would think twice before taking any actions against her at this stage.

At any rate, she knew that when she left there...*if* she left there... she would probably never come back.

Lambert eyed Kris carefully before asking, “What do you know about this technology of theirs?”

Kris shrugged lightly. “Only that it exists, it works... and it’s like nothing you or anyone on Earth has.”

“Do you know how it works?” Thompson asked her.

Kris smiled wryly. “I don’t know how my dentimed works.”

Thompson scowled, but said nothing more.

“Can they take Verdant back to Earth?” Lambert asked.

“Apparently so,” Kris replied. “Of course, they are understandably concerned about rushing back.”

“What about that bit about returning citizens back to Earth? If they don’t go back, how are they planning to do that?”

“At the moment I left,” Kris told him, “the consensus was that they would retrofit their new technology to a ship and allow them to make the first trip back.”

“They can use small ships,” Lambert stated for the sake of confirmation.

“Yes,” Kris said. “It seems they’ve tested this system a few times with smaller test-beds to confirm it works. They didn’t just blindly throw a switch and hope for the best. They knew what they were doing.”

“And we should just let them send people back?” Thompson asked.

Kris looked at Thompson. “Although CnC is refraining from actual plans along this stage, they are aware that they can also use this system to deliver other things to Earth.” After a pause, she added, “Things Earth won’t want to get.” She left the statement there, knowing Thompson and Lambert would understand full well she was talking about bombs. Both men met her gaze stonily, but their thoughts were clear to Kris... they were clearly aware now of how little control they had over this situation.

After an extended moment of silence in the room, Lambert asked, “Can you tell us anything else?”

“I’m not here to tell you anything else,” she told them plainly. “I am here, as an authorized representative of the Verdant Command Staff, to relay an invitation to meet Ceo Lenz.”

“For what purpose?” Lambert inclined his head proudly. “Am I supposed to surrender to him?”

“Of course not,” Kris smiled. “Your staff needs to work with CnC to organize who will be returning to Earth on the first ship.”

Thompson and Lambert exchanged glances silently. Neither of them seemed happy. Kris duly added to their unhappiness by adding, “Obviously, as President and Chief of Staff of the United States of America, you two will have reserved seats on the first ship back to Earth.”

Both men glared at Kris. She found she had to struggle to avoid smiling.

~

When Kris reached the foot of the stairs and turned towards the diplomatic offices where she kept her few items of property, she was almost immediately confronted by a security guard who blocked her way. She came up short, then looked down at the guard’s hands. At his waist he held a small bag, in such a way that the mouth was open and its contents were visible. Kris looked down into the bag, leaning forward slightly so as not to have to step closer to the guard.

Inside the bag were the entire contents of her locker. Kris smiled, not surprised at all that they had already gone through her things. When she straightened up, the guard closed the bag and held it out to her. Kris took the bag silently, and gave the guard an expectant look. The guard took a step sideways, leaving her a path to the front door of the building.

Kris nodded in understanding, and started for the door. After only a few steps, however, she noticed Shay Vaughn standing by one of the diplomatic desks, watching her go. Kris stopped, taking notice that the guard did not seem to have a problem with her doing so.

Shay looked at the bag impassively, then up at Kris. “Is that it for you, then?”

“Looks like it,” Kris smiled, hoping it wasn’t as final as Shay somehow made it seem. Something else occurred to her. “Looks like the Americans will be going home. Give some thought to where you want to

spend your retirement.” She gave Shay a significant look: *Look out for yourself*. Then she gave her one last nod, turned, and strode out of the offices.

She spoke to no one else, and no one spoke to her, as she walked through the front doors, out into the open air, and to the compound gate. Kris felt, rather than saw, the guard stopping shy of the gate as she reached it. Without a backward glance, she continued on through. The compound gate closed behind her, and Kris realized she had been holding her breath. She let it out in a sigh, part of her feeling immense relief at being officially divorced from the service of Enu Thompson.

And now it was time for her to focus on someone else who needed her... and, she reflected, in more ways than one. Opening the top collar of her blouse to the air, she walked calmly away from the Presidential compound, looking forward to the tasks to come.

## 26: Explanations

“So, this... is it.”

It was clear from Julian’s voice that he didn’t know what to make of the vast storage room full of scaffolding and scientific equipment, and the researchers standing proudly off to one side of the room. Dr. Silver had escorted them down to the room, and had brought them in without a dramatic sweep of arms or loud and excited voice. Simply: “Here we are, our quantum translation system.” She also showed no surprise or dismay by Julian’s lack of reaction to the maze of struts, piping, cables and equipment.

Aaron had a slightly more enthusiastic response, given that he was a bit more familiar with at least some of the equipment in the room. “You put all nine gigacapacitors in here—of course! How many workstations do you have in here? Are they all full stations, or are some of them slaves?”

“Six full workstations and four slaves,” Dr. Silver replied.

“Whoa... that’s a lot of processing power.”

“You should see the equations needed to handle translation of significant objects in realtime,” Silver commented by way of explanation. “Two of the workstations control the equipment in here. The rest of them crunch the numbers.”

Julian watched as Aaron and Dr. Silver conversed, and he quickly became concerned that if left to their own devices, they would wander off on their own tangent. He glanced at Reya, who shook her head in helplessness. “Doctor,” he spoke up before they could go on, “can you give us a layman’s understanding of what all of this does?”

Dr. Silver looked at Julian, and nodded. “Of course. It might be easier if Dr. Rios were here,” she added, but they were all well-aware that Calvin had gone off to see his wife in the hospital. “But I’ll do my best.”

She led them to the edge of the scaffolding, reached a steep stairway, practically a ladder, and started to climb. At the top, she motioned for the others to follow her. As they followed, Reya grumbled, “I’d very much like to know how they managed to get all this heavy gear in one place, and the GLIS never made a

peep to CnC about it.”

Julian glanced over his shoulder, past Reya, to Aaron. “Creative accounting, Aaron?”

Aaron replied defensively, “I do know something about my job, you know.”

Once Julian, Reya and Aaron had joined Dr. Silver on the scaffold, she led them towards the center of the space, which was dominated by two large constructs, one spherical, one rectangular. The long axis of the rectangular construct was in line with the center of the sphere, and the two of them were joined by a rigid black conduit that ran through the center of each. Both constructs were festooned with rigid and flexible cables and conduits, many of which ran to a workstation seated close by on the scaffold.

“All right,” Dr. Silver said when everyone had reached the constructs and the workstation. “You all remember when Dr. Rios explained that it was discovered that applying energy to quantum particles served to change their quantum vibration? That’s essentially what we do here... this is the core of the entire process. We start with this laser, here,” she said, patting the rectangular construct next to her.

“Not just... *alaser*, laser... right?” Reya asked.

“Correct,” Dr. Silver nodded. “That’s just the colloquial name for it. It’s full name is a compound energized particle amplifier and emitter, or CEP AE... not the most elegant of acronyms, unfortunately. Without going into the technical details, it’s a compound beam system that starts out with a laser beam at its base. Then it injects energized particles, tuned to a specific frequency and orientation, into the beam to create a compound beam of charged particles focused along the laser. It is those particles that impart the change in quantum frequency to the target.”

Everyone’s eyes focused on the spherical construct, and Dr. Silver gestured towards it. “Yes, the target is a crystal in the chamber, there, formed and doped in such a way as to provide subatomic conduits for the tuned particles from the beam. This is actually the most significant part of the process.”

“How so?” Julian asked.

“Without mastering this part of the process,” Silver explained, “all we’d manage to do with the CEP AE would be to translate the target point—the center of the crystal—to a new location. So we have to apply a carefully-tuned field to the crystal, at the same moment that the CEP AE imparts the change in frequency and orientation, both of which cause the crystal to broadcast that frequency change outward, instantaneously, in a reflected wave. It is that signal that triggers the simultaneous change of frequency and orientation to every particle in Verdant, and causes the entire satellite to translate to another location at once.”

“How does everything know to stay together?” Dr. Silver turned to Reya, who had asked the question. “I mean, what keeps us from arriving at a new location as just a big atomic cloud, instead of ourselves?”

“Apparently,” Dr. Silver replied, “quantum entanglement deals with the issue of holding every particle in place, remembering what it is connected to and how, and maintaining that connection through translation.”

“*Apparently?*” Julian and Reya simultaneously repeated.

Dr. Silver’s eyes stirred at their emphasis of the word, and perhaps for the first time, she looked as though there were things in this world that she, too, still had to learn. “I’m afraid there are a lot of these

details that we have to take on evidence, though we don't know the exact mechanism of their function. Maintenance of the original state through quantum entanglement is one of those things." After a pregnant pause, she added in defense of the process, "The test-bed demonstrated proof of concept..."

"I'm feeling distinctly sterile again," Reya complained, and threw a testy glance at Silver, then at Julian.

Julian, catching the glance, decided to steer the conversation away from the barely-understandable mechanics of the process. "I take it that this system can be..." He paused, and looked at Dr. Silver. "I suppose 'steered' would be the literally incorrect word to use, but just for the sake of understanding."

Dr. Silver nodded. "Yes, we can control the direction of translation, as well as the distance. Verdant does not have to be 'aimed' or oriented in any particular direction."

"How many times can you use this system before something needs to be replaced?" Julian asked. "I'm assuming something in here must burn out eventually."

"Well, the CEPAE is rated to be fired approximately 400 times before needing service," Dr. Silver told him. "We haven't yet worked out the failure rate for the crystal, but presently we estimate about a dozen firings before we need to replace it. The good news is, we can grow new crystals on Verdant... we grew this one here. But it does take upwards of a month to grow one crystal this size, so we'll need to keep one stored at all times for its eventual replacement. Then the spent crystal can be used as a seed for a new crystal."

"How far can we go?" Julian asked.

"We don't know, yet," Dr. Silver replied. "We determined we could go this far, by sending the test-bed here and back. We suspect that we can travel literally to the ends of the universe with this system... the amount of energy used during translation doesn't seem to be a limiting factor."

"You can go any distance, with the same amount of energy?" Reya goggled. "Now, even if everything else you've said *didn't* sound impossible, that part does."

"It's one of the more interesting aspects of quantum physics," Dr. Silver shrugged. "Distance isn't the factor that it is in Einsteinian space. But there are other factors that may be involved."

"Like what?" Julian asked.

"You'll be sorry," Reya sing-songed.

Dr. Silver allowed Reya's comment to roll off, before she replied. "Remember, Dr. Rios mentioned that the quantum vibration is different at different distances from the Origin Event." Julian nodded. "When we translate from one place to another, it changes our quantum frequency, or internal vibration, to that of the new location. Well, there is speculation among scientists that a significant change in quantum vibration will cause fundamental changes in the way particles interact. How they share and use energy... how they influence other particles... how much energy is needed to do certain jobs. Some scientists believe that, after a particular frequency is reached, objects and processes formed by quantum particles lose all coherence. Objects break down. Physics breaks down. Reality itself breaks down. If that's true, then there is a natural limit to how far we can travel, before we end up as Eo Luis' atomic cloud."

"That sounds bad," Reya said sarcastically. "How do we know how far we can go?"

“Sending out test-beds ahead of us, as probes, will always answer that question,” Dr. Silver replied easily. “It would be a sensible thing to do before we translate Verdant, at any rate, to make sure there was no mistake in calculations, or to identify any physical obstacles or other unexpected anomalies that would be dangerous to us. And we can always send out test-beds as far as we can, set to take readings and come back. Any that don’t come back are obviously in an area that may not be conducive to our survival.”

“Here there be dragons,” Reya intoned. Then she paused, looking at Julian, and the unusual glint in his eyes. “Hey, you’d better not be thinking what I think you’re thinking...”

“He is,” Dr. Silver said, eyeing Julian. “And he’s *right*. Yes, we can use this system to take Verdant almost anywhere within a significant portion of the known universe. Our quantum translation system essentially turns Verdant into a giant starship!”

“Oh, God, here we go,” Reya moaned, turning on Julian. “I think we’ve had enough of this *Brane-Boy* stuff, don’t you? We need to get *home*, Jules! We are not a self-sufficient space ship! We’re a living, research and manufacturing facility designed to *stay in Earth orbit*!”

“Reya, I *know* what Verdant is,” Julian told her, holding back his impatience. He looked at Dr. Silver. “However, I also know that we may not be welcome in Earth orbit right now, and it may be beneficial to us to be able to present a... moving target. Also, this technology may be a resource we can sell to Earth.”

“How?” Reya asked.

“I’m not sure yet,” Julian replied. “Maybe if we can construct starships for Earth... or at least the quantum system as a drive that they can install in their ships... we’ll have a new product, possibly important and popular enough to guarantee our sovereignty and protection by the U.N. In turn, Earth will get ships they can use to explore the galaxy.” He looked to each of them in turn. “Think of that.”

“If it’s exploration you want to offer,” Dr. Silver suggested, “why stop at ships? We can take Verdant to other planets, mount full-scale exploratory expeditions, and return with—”

“You’re doing it again,” Reya protested. “Julian, we have to go *home*. *Period*.”

Julian considered Reya’s words, and Dr. Silver wisely stopped speaking. After a moment, Julian turned and asked, “Are you sure you can adapt your test-bed system to a ship?”

“I don’t foresee a problem,” Silver replied smartly.

“All right, I’ve seen enough here. Get your staff to work on retrofitting a freighter with your system. Reya, you pick out the freighter, something medium-sized that can be fitted with temporary passenger accommodations for the trip to Earth.”

“But Verdant—”

“We have to crawl before we can walk,” Julian cut off Reya’s protest. “We’ll get the Earth residents back, and make sure it’s safe for us to return.” He eyed Reya, and she declined to argue his point. Dr. Silver also seemed satisfied. He nodded. “Get busy, you two. Aaron, whatever resources they need are authorized.”

“Of course,” Aaron replied. Julian turned to climb down the scaffolding, leaving Aaron, Reya and Dr. Silver regarding each other. One look at Reya and Dr. Silver told Aaron that he did not want to be caught between them. “You two let me know what you need, okay?” he said, and quickly headed for the ladder.

Reya finally started after him. Then she stopped, turned and regarded Dr. Silver. After a few moments, she said, “Tell me right now: *Is this safe?*”

“Yes,” Dr. Silver said without hesitation.

“Good,” Reya said after a pause. “Because you know what’ll happen to us if we put a bunch of Earth citizens on board a freighter, and turn them into cosmic soup. *Don’t you?*” Without waiting for Dr. Silver’s reply, she mounted the ladder and climbed out of the scaffolding.

Dr. Silver silently watched them go. Once they were out of the room, she called to the technicians standing on the floor level. “We have work to do.”

~

When Julian returned to CnC, he was immediately greeted by one of the technicians that had been assigned to monitor their hastily-assembled long-range com system. “Sir,” the girl stepped forward, “we have up-to-date data on Earth and the satellites’ present state. We’re having no trouble pulling in standard com traffic now.”

“Thank you,” Julian replied, taking the datapad from the girl and proceeding into his office. He was sure he didn’t want to review the information in front of the rest of the staff, but he wanted to know what was happening on Earth before they blithely jumped... moved... translated... *whatever* ... back into orbit. Fortunately, he reflected, they were not so far away that com signals could not be picked up with sensitive-enough equipment, even from Mars orbit. Most Earth transmissions were not intended to carry much beyond the atmosphere, but the proper antenna configuration could pull in even the weakest of signals.

He waited until he had sat down, before scrolling through the reports gleaned from the com transmissions. As he’d expected, the news was not good. To begin with, Tranquil and Fertile were apparently wrecked, both due to internal fighting between occupation groups and the satellites’ residents and security forces. Tranquil had suffered even more extensive collateral damage from fighters in orbit, and when all the damage was totaled, Tranquil engineers were saying the satellite would be largely uninhabitable within two months. Qing was now embroiled in internal riots, despite the fact that the satellite was considered a Chinese state... apparently, Chang or someone else had finally decided that simply wasn’t good enough. But Chang hadn’t been seen in over a day... there were rumors that he had been assassinated.

All ground-based freight companies had indefinitely suspended supplies deliveries to the satellites, using the still-significant Yellowstone Caldera’s ash cloud as a convenient excuse to avoid even sending ballistics into orbit. At the same time, small and personal ships were constantly jockeying for opportunities to break through the ash layer and try to board any of the satellites. A number of craft had already suffered catastrophic damage trying to ply the ashy atmosphere, and most of those had crash-landed, killing all occupants.

Regarding Verdant, the reports were even more lively and inventive, but no less threatening-sounding. To begin with, very few people on Earth apparently believed Verdant wasn’t still in orbit over Earth.



Apparently the “advanced cloaking technology” rumor had taken root, and most of Earth was sure Verdant was playing some elaborate hoax. A lot of effort was being expended trying to locate them, primarily concentrated in the vicinity of Earth where their orbit had originally placed them. And the long-range telescope videos of Verdant, plainly seen to be orbiting Mars? The majority of the public believed it was also a hoax, a special effect created by Verdant to hide their true location. And some believed the United States was creating the effect, in order to hide their true agenda, that of clandestinely taking over the satellite and allowing America’s elite to live in cloaked seclusion.

And what did the United States government believe? No one outside of Denver could say, and Vice President, now acting-President Carruthers in the High House wasn’t talking, either. Yet the government was spending a lot of time accusing Verdant of kidnapping American citizens, including the President of the United States, and holding them for some as-yet-unstated ransom. A few extremists speculated that the Americans on Verdant were already dead, executed as war criminals. Officials and civilians alike went out of their way to describe the things that would be done to those on Verdant, if their suspicions were verified.

Julian personally had his doubts that they would wait for verification.

There were some official fires he had to deal with: Requests and demands by various departments for resources beyond the standard level three restrictions, a common occurrence, and very often granted within reason. This time, Julian turned them all down. Some of them were as simple as a word in an e-mail. Others demanded face-to-face com time, and Julian had to play the stern father or leader to his charges. A few of them, he simply ignored, or referred the request to the GLIS... they would get the hint. In fact, soon the word would go out that nothing was getting slipped through this time... things were *that* serious.

But underlying the requests, some almost reasonable, many of them almost insufferable, Julian was continually brought back to their situation, and the terrible loss they had already suffered. The losses to Earth when the satellites, once constructed to be the islands of sanity and salvation of Mankind, would be consumed and wasted, their promise to the future lost to the insanities of the present.

And the loss *he* had suffered. Evelyn Volov, one of his oldest friends; once an intimate friend; and now, like his wife, lost to him while he helplessly looked on.

After a time, Julian found he could no longer concentrate on the work, and he shut down his workstation. Leaving the datapad on the desktop, he strode out of his office and into CnC. He glanced quickly around the room until he located a familiar face. “Lang,” he said loud enough for everyone in CnC to hear, “you have command of CnC for the rest of the shift, until Eo Luis gets back.”

“Yes, sir...” Lang replied, but Julian was already walking through the doors to CnC, not waiting for his reply.

Julian walked like an automaton through the corridors, to the lift, down to the residential floors. It seemed that the weight of the last two days was bearing down upon him, threatening to break his back with each new step. With the constant barrage of bad news he’d suffered through, he was beginning to lose faith in their ability to return safely to Earth. He thought of Anise, and wondered whether he’d ever get the chance to speak to his daughter again. He thought of his lost Mariel, and remembered how long it had been since he’d visited her grave, or thanked her once again for delivering Anise to his care before she was swept away by the power of Mother Earth’s raging waters. He thought of Evelyn Volov, more than a friend, who could have been more than a lover... and he wondered how much she had suffered when the freighter had punctured Tranquil’s hull and taken her.

He thought of the remaining beauty of Earth, and wondered if he would ever see it with his own eyes again. His blood seemed to freeze in his veins as he considered a life without Earth.

So consumed was Julian by these thoughts, that he walked the entire distance to his own residence without seeing a single step, a single person, a single feature of the satellite he had lived in for the past eighteen years. To be sure, the shadows within Verdant were deepening, standard procedure for the end of the day, and in many areas the lights were coming on, but at that dusky level of the day where those lights seem to be ineffectually dim. Verdant's interior was morphing from green to grey, and the colorful clothing of passers-by were becoming silhouettes moving to and fro around him, easy to ignore.

But as he reached his own door, something in the periphery of his senses caught his attention, and with a start, he jerked to a halt. His eyes scanned about intently, examining the shadows and corners in his vision, especially those between him and his front door... and presently, his eyes settled on one such shadow, multiple shapes being thrown by a small garden of potted plants in a waist-high planter, shapes that stirred in a light wafting breeze with their attendant leaves, other shapes that defied the breeze and kept their position. He suddenly remembered Kris Fawkes' warnings about attempted assassinations, and it occurred to him at that moment that he was...*had been*... an easy target. And something about that particular shadow did not seem to be the same as those he'd seen before...

Then the shadow began to move. It moved slowly, but not glacially... not as if it did not want to be noticed. This shadow knew it had been seen, and it was satisfied to display itself fully. Julian found that he could not run from it... it was certainly too late, at any rate... so he stood there and watched it with dreadful fascination, until the shadow had finally detached itself from the plants and assumed its own shape.

Then the shadow spoke: "I didn't mean to alarm you."

Julian recognized the voice immediately, and found himself releasing a breath he hadn't realized he was holding. Kris Fawkes walked up to him out of the shadows, smiling apologetically. As she approached, her eyes fixed on his, and slowly, her expression changed.

Julian stood still and allowed her to move close enough to rest one hand on his shoulder. He felt her fingers flex against his arm, probing, trying to connect with something, all the while never taking her eyes off his. As Kris studied him, he watched her, almost as a spectator watches a performance, waiting to see if the performer would solve the riddle set before them. And at the same time, *being* the riddle... and not knowing exactly what would happen to himself if the performer was successful. Not sure he wanted to know. Afraid to know.

*Desperateto* know.

He waited.

Kris spent perhaps the longest time she'd ever spent, trying to read someone so thoroughly, and having the most difficult time at it. Certainly, in Julian, there was pain just below the surface, barely concealed... she had read the data provided by Enu Thompson, so she knew about Mariel... but there was more, *far* more, denied needs, repressed desires, buried memories... a subjugated spirit. Something that thought it needed to be caged, and that had been self-suppressed for so long that now it had no idea what to do if it gained its freedom. But Kris felt it needed to be freed, for Julian's own good.

As she studied him, Kris sought words. She had met many caged souls, and she was sure this one could

be released with the correct words... the words of *magic*, the keys that would penetrate the locks and free the caged soul within. It was a risky venture: The wrong words could not only clamp the bars down even tighter, but could also unleash a backlash that could have dire, painful, even fatal consequences. But the payoff could be... *transcendent*.

And a part of her was insanely curious about this man, one of so few who did not reveal himself to her in the first seconds, the first words, of their meeting. Her first Man of Mystery in so, *so* long. She had realized, days before, that she was attracted to him... that she wanted him. For him, she wanted to risk the words, she wanted to dash that cage aside, and she wanted to see what would come roaring out of the cage once it was opened... no matter the risk.

Suddenly, she caught a flicker in his eye... a flash from the buried soul, a mute shout, a glimmer of need, which Julian himself probably didn't know was there. The flash had Mariel's name emblazoned on it, of course... but it wasn't just love, it wasn't just longing that was there.

According to the data she'd seen, Mariel had fought the floods she and her infant daughter Anise had been trapped against. By the time Julian had reached them, according to eyewitness reports, it was considered a miracle that the woman had lasted so long against the furious current. When, after intense struggle, Julian had finally gotten close, Mariel had handed over her daughter, putting her directly, firmly, triumphantly into Julian's hands.

Then she'd been swept under by the current, taken from Julian's grasp so quickly that it seemed she had been captured by submerged hands and borne away. Leaving her husband, and her daughter, to live on without her.

In Julian's eyes, Kris saw a reflection of the look that had passed between lovers that day. It was a look of heroic effort, and tragic loss, forever burned into his retina. Kris now saw Mariel as Julian remembered her, and she realized: He didn't just miss this woman; he *deified* her, and her ultimate sacrifice. And his soul still screamed of her pain.

And at once, Kris had her words. *His words*. She smiled sympathetically, calmly, carnally, and whispered to him:

*"Only love is worth that pain."*

Julian's head snapped about to face her directly, and Kris froze as his eyes locked on hers. Her words had done the trick: They had awoken him like a snap of lightning. Somewhere deep inside him, the cage had been collapsed, its control of his inner fire was gone. The fire now burned hot in his eyes... and his eyes saw only her. Now she was at the mercy of whatever she had unleashed.

She almost started when she felt a motion against her free hand, and had to resist the urge to draw back. Slowly, Julian's hand closed around hers, his fingers entwining through hers and locking together. She felt herself being drawn, and she shifted a foot to catch herself. It took her a moment to be sure what was happening: He was leading her to his door. It opened at his approach, and automatic lights snapped on inside, inviting, pushing away the darkness and the fear.

Kris allowed herself to be led inside.

~

"I was right about you."

Julian used his hand to prop his head up on the pillow, and looked at Kris' silhouette in the dark of his bedroom. "What?"

"You were...*transcendent*," Kris told him. Although he could not see her face, she sounded like she was smiling.

"And you," he said, "*were supernatural*. I felt like... I don't know... like you *knew* me... like you've *always* known me. Like we've been lovers before."

"In a past life?" Now Julian knew Kris was smiling. She pushed closer to him, her skin still hot against his. "I'd love to think we were lovers in another life. And maybe we'll be lovers in a future life. But right now, I'm just happy about this one. And I'm happy I was here for you."

Kris levered herself up, to rest on Julian's chest. "I hope this isn't hitting too close to home, but I could tell you've had a lot bottled up, for quite some time. And I could tell how much you needed to let it out... it was strangling you."

Julian considered her words, and smiled. "I think you're right. I didn't really see it, myself... I think I actually avoided looking at it." He thought of Mariel, and a tear formed in the corner of his eye. "It was so hard to look at..."

"I know," Kris said, and slid upward so she could kiss him. Her lips were warm and sweet, and they made it easier for Julian to push unpleasant thoughts away, and revel in the presence of her. "You don't have to forget. Just dwell on the positive that came out of it... your daughter, Anise."

"Yes," Julian nodded. "Anise. She turned out to be the perfect daughter, and a wonderful woman. Saving her was... probably the only thing worth her life."

"But she didn't just save your daughter," Kris pointed out. "She saved her for *you*. So you could be a part of her life, even if she couldn't. She knew how much you deserved your daughter. And how much you deserved all the happiness you can get."

Julian detected the hidden meaning in her last sentence, and kissed her again. "There's nothing so special about me. I'm like a lot of guys who have lost friends or loved ones to the frustrations of our planet. I'm just trying to continue my life."

"Of course," Kris agreed. "But you are doing more with your life than most, running this satellite... taking care of the people on it... inspiring people like Dr. Silver to take action on their behalf. Inspiring me." She settled her head on his chest, her hand resting open-palmed on his breast as if she was somehow soaking up part of his life force through it. "You, Julian Lenz, are a great man. You deserve everything you need, and everything you desire. All I have to offer is myself... but I offer myself freely, body and soul."

Julian smiled. "Believe me, that's plenty."

## 27: Pandemonium

The flight bays were always noisy: Heavy duty vehicles came and went, carrying parts and supplies for individual spacecraft; hidden mechanics whirled, roared, clanked or whined, opening and closing doors, moving ships into and out of bays, starting and stopping rotational gimbals; ships were serviced and repaired; and people moved about all of this activity, yelling above the din, getting their jobs done or asking why they weren't done yet. The bays were always noisy.

But now there was an unusual noise that sat above all the other noises in the bays: It was the roar of a crowd, angry, demanding, frustrated, and panicked. That roar was concentrated in one particular area of the bay. And it centered around one person: Eo Reya Luis.

It had been that way from the moment Reya stepped onto the bay: As soon as the first freighter Captain saw her and ran up, demanding to know what was going on outside, and when they'd be released from their emergency lockdown status; then private owners had accosted her, demanding to know by what authority they were being detained; commercial operators, concerned about ruined schedules and docking fees, warning of threatening bosses and angry clients they could no longer contact; and even liner crews, speaking on behalf of frustrated passengers who could no longer get hold of loved ones on the ground. They had built up around Reya like a hurricane building around its eye... but unlike a hurricane, the center occupied by Reya was anything but calm.

To her credit, Reya had done her best to address everyone's questions at first, even if it was only with "We don't know yet, I'll have to get back to you..." but in no time, the questions were all coming at once, being shouted over each other amidst waving datapads and threatening fingers, until Reya could make out none of it anymore. Abruptly, she put two fingers in her mouth and blew, and the ear-splitting whistle she produced finally quieted the crowd.

"Now everybody, listen up!" she shouted. "Verdant is in an emergency situation, and we are doing everything we can to make sure we all stay safe, and can return to our lives and jobs as soon as possible!" The crowd started to respond to her statement, but she put up her hands to silence them. "Now, I am down here because we are going to need to commandeer a spacecraft! I already have one picked out, but if any of you want to continue to pester me—"

Reya didn't need to say more; the crowd immediately began to thin out, grumbling lightly, but in general keeping it to themselves. Within seconds, the noise and press were gone, and Reya found herself alone on the deck.

She surveyed the rapidly-retreating throng, and muttered, "That's what I thought." Flexing her arms demonstratively, she brought her datapad to her face, examined it briefly, and set out across the bay, watching ship captains part around her like a wave.

"Eo Luis!"

Reya brought her head around, surprised that anyone was willfully addressing her at all. She saw a woman in a United States military uniform heading toward her at a march that was just short of a run. "Col. Stearns, right?"

Emily Stearns brought herself in front of Reya and stopped. "I demand to know when we are going to be released from lockdown status. If the President needs to leave, Aerospace Force One is—"

"Is going nowhere right now, no matter how badly your President wishes it," Reya cut her off impatiently. "So you can save the spit and polish routine. Besides, where would you go? Unless there's a

secret American base on Mars, or you've got a classified warp drive on that ship..." Reyah paused and gave Stearns a significant look, as if half-expecting her to suggest one of Reyah's facetious guesses were true. When she didn't, Reyah continued: "...you're stuck here with the rest of us, pilot." She glanced back at the crews that were normally maintaining AF1 at all times. "Might as well give them the day off, too." With that, Reyah stepped smartly around Stearns and continued on. Stearns regarded her through narrowed eyes, before turning and heading back to Aerospace Force One.

Eventually, Reyah reached one of the larger access bays, where access tubes and umbilicals connected to one of the Fargo-class freighters moored outside of Verdant's hull. In fact, the outside of the freighter could not be seen from the inside of the bay... only the interior spaces that were revealed at the ends of the access tubes were visible. According to Reyah's datapad, the craft moored outside was the Lusterne-owned freighter *Makalu*.

"Oh, whoa, whoa, *whoa, whoa, whoa* ..."

Reyah turned around at the sound of the approaching voice, and saw a large man heading in her direction, waving a hand as if to ward her off. The man had on a Lusterne Corporation jacket over work coveralls, and his build suggested he could hold his own in any barroom brawl that might be tossed his way. His African features were handsomely rugged, though decidedly not pretty, and his eyes were sharp and intelligent. As he neared her, he swerved between her and the access tubes, trying to block her from coming any closer. "Whoa, *whoa*, just what do you want here, Executive?"

Reyah suppressed a grin at his use of part of her title, and glanced at her datapad. "Captain... Grand?"

"Yeah, I'm Roy Grand," the man replied. "What can I do for you?"

"Captain Grand," Reyah said, tucking her datapad under her arm, "I have the dubious honor of informing you that Verdant will have to commandeer your ship during the present emergency, so we can return non-Verdant citizens back home."

"Oh, whoa, whoa, like Hell!" Grand began waving both arms, clearly hoping Reyah would forget the whole thing and run for cover. "Why my ship? What the Hell for? There are lots of ships! Why my ship?"

"I understand your reluctance," Reyah said soothingly, nodding soberly at his protestations. "Believe me, if I was in your position, I might be apprehensive as well. But as it turns out, not only will this be good for Verdant, but it will be good for you and the *Makalu*."

Captain Grand fixed her with a dubious stare. "Good for me? How?"

"Allow me to explain," Reyah said, stepping forward and slipping a hand onto his arm. "As you've probably heard, we're all a long ways from home right now."

"Yeah... *wait*." Grand paused, and looked over his shoulder conspiratorially, and prompting Reyah to look with him, before he turned back to her. "*Really?* I mean... we're really not above Earth anymore? All that shit we heard is true?"

Reyah nodded. "It's true, Captain. We're over Mars."

Grand looked about him as if seeing the bay for the first time. "Holy *shit* ..."

"Oh, yeah," Reyah said. "Now: Although we're all the way out here, we have a way of getting back. And

your freighter will have the honor of being the first ship to return to Earth.”

Grand looked at her dubiously. “How am I supposed to do that?”

“We’re going to install a miniature version of the system that put us out here,” Reya explained. “That way, you can get back to Earth orbit, then land your ship just like it was any other day. The big difference,” she continued, “is that you will be taking people back with you, instead of freight. But this will be a very lucrative job for you... we’re going to make it worth your while.”

Grand had listened without comment to Reya, and he tentatively nodded now. “Sounds reasonable... I suppose. But when you say lucrative—”

“Four times your standard freight rate,” Reya said at once. “Both trips.”

Captain Grand immediately brightened up. “Well... now you’re talkin’ my language!” He paused then, and seemed to reconsider. “But you know, I don’t own this boat, I just fly ‘er. You’re going to have to clear this with my boss, Walter Gordon, and I doubt he’ll be too thrilled about this.”

“Don’t worry,” Reya said, “we’ll deal with Gordon.”

“Besides, why aren’t we just going back the way we got here... all of us?”

“You think I wouldn’t like to do that?” Reya countered. “Trust me, we all want to go home! But we were just attacked by American forces. We need to make this run first, to get those people home... and get some supplies... before we all go back.”

“You mean,” Grand said, “to make sure it’s safe.”

Reya smiled at Grand. “We are talkin’ the same language.” She turned and led him toward one of the access tubes. “Let’s go inside and check a few things out, to make sure you’re up to spec in here...”

“Oh, you won’t find any problems with the specs,” Grand said, his head already wrapping around the prospect of quadruple his usual fees. “*Makalu*’s a good ship, as sturdy as the rock she’s named after! *Makalu*’s a mountain in Tibet, in case you didn’t know.”

“No, I didn’t know that,” Reya said.

“A lot of people don’t know that,” Grand said. “Y’know, if you’re from Asia, I guess you probably do. But most people in the west don’t know of it. What are you gonna have to do to my ship, to get it back to Earth?”

“We have a system that just needs to be on your ship and powered, to work,” Reya said. “Don’t ask me to explain it. Real*Brane-Boy* stuff. But it works.”

“You’re sure?”

“We’re over Mars, aren’t we?”

~

Reya’s tour of the *Makalu* turned out to be a lot less unpleasant than she’d expected it to be. Roy Grand

turned out to be an intelligent man, even if he did like to talk as if he'd just stepped off of a fisherman's wharf. And as far as Reya could tell, the *Makalu*'s specs met all of the initial criteria she'd been given. The ship was a workhorse, hardly aerodynamic, but with powerful engines designed to haul copious tons of cargo... in other words, a typical medium-sized cargo transport. Roy showed her areas on the freighter that would be well-suited for its secondary task, transporting non-residents back to Earth, as well as identifying areas that might be appropriate for the quantum system they intended to install. As she left the freighter, she was actually feeling like she was managing to get something accomplished.

Her pleasure was short-lived, however, when she saw the crowd of people milling around outside of the *Makalu*. Apparently, once most of the bay personnel had realized their ship was not in danger of being commandeered, they swarmed right back in to make their demands of her. Immediately she remembered how long the day had already been, and a wave of fatigue flooded into her as she trudged across the access tube and out of the freighter. As she stepped back into the bay, the crowd waded in, and the shouted questions started anew. Even Captain Grand avoided coming back out into the crowds, deciding he was better off seeking refuge on his own ship.

After a few insufferable minutes of fielding shouted questions, Reya was beginning to seriously contemplate jail terms and bodily harm for many of those surrounding her. But before she actually broke down to kicking asses and taking names, she saw a familiar face wading into the crowd. Lem Carter worked his way calmly through the crush of people, and when he was close to Reya, he flexed his shoulders, which made a hole for himself and placed him firmly in front of Reya.

"I need your help," Carter told her in no uncertain terms. "There are some perishables on board the *Lincoln* that need to be disposed of, before they present a hazard."

"Hazard?" Reya did not take long to think about it. "Let's take a look. Rest of you, we'll talk after I'm through!" She took Carter's arm, and steered him through the crowd and in the direction of his passenger liner. A few people followed after them, but they moved at a fast-enough clip to leave most of them behind. When they reached the *Lincoln*, Carter let Reya on first, then turned and closed the main hatch to prevent anyone following them.

When Carter turned around from dogging the hatch, Reya was waiting, hands on hips. She glanced at the door, clearly happy to get a break from the cacophony outside. "So, where's the hazard, Lem?"

"Up here," Carter replied, and led her to the stairwell that led to the upper deck of the liner. Reya followed him up the stairs and onto the landing, where passengers were greeted by staff and directed to their suites and subsections. The entrances to the upper galleys and service areas were adjacent to the landing, and Reya started to move in that direction. But Carter waved a hand and said, "No, it's not over there. It's this way."

"What?" Reya asked, perplexed. "Is this some passenger's stuff?"

"Right around... here," Carter was saying, examining the doors to the suites as he passed them, rubbing his chin as he went.

Reya gave him a look. "Did you forget where it was?"

At that moment, Carter threw out his hands as if he had just found what he'd been looking for. "Ah! Right in here. Come on." Carter opened the door to the suite and stepped inside without hesitation. After a beat, Reya followed him.



The suite was one of the first class private affairs favored by the more well-to-do of travelers. It was big enough to accommodate a large, articulated sofa in its center, complete with adjustable tables and drink holders. The forward and side walls were dominated by display screens, and the rear of the suite had two small alcoves, one for luggage, and one for a fridge and refreshment kiosk. A small door in the corner led to a tiny washroom. Reya took a second to admire the luxurious appointments, but then she frowned in confusion. “So, where’s the hazard?”

“Right here,” Carter said, stepping to the rear alcove and opening the fridge. He extracted something from the fridge, his body blocking Reya’s view, before he closed the fridge and stood up. When he turned around to face her, he held a bottle in one hand and two flutes in the other.

Reya stared at the bottle and glasses stupidly. “Uh... Lem, what?”

“Yeah,” Carter nodded soberly, “I found these at about the same time I noticed a certain Executive Officer that looked like she was about to blow up, or pass out, I really wasn’t sure which.”

“Lem—”

“This wine, in particular,” Carter held up the bottle, and pushed the glasses at Reya, practically dropping them in front of her. As she reflexively reached out and took the glasses, Carter put his now free hand on the neck of the bottle. “This is a rare ‘ought-four from Manitoba,” he explained as Reya stared at him, incredulously. “I happen to know that this has a very short shelf-life. In fact, once the bottle is opened—” he paused just long enough to pop the seal on the bottle, causing Reya to flinch “—it pretty much needs to be finished off, that night, or it’ll spoil.”

He tilted the bottle over one of the flutes in Reya’s hand, and the amber liquid poured slowly down and bubbled back up merrily. When he had filled one glass, he paused, looked at Reya and said: “Know what I mean?”

“Lem,” Reya started, pausing when Carter began to fill the other glass. “Lem, I appreciate this, but I—”

“Are dead on your feet,” Carter interrupted her, reaching out and taking the second glass from her. “Unlike some of these cretins around here, I know what’s been going on. I’ve also known you for a long time, and I’m sure I know how busy you’ve all been. As soon as I saw you down here, I could tell that you’ve been denying yourself a break... you’re wont to do that.” He held up his glass in salute.

After a moment, Reya smiled, and raised her glass. “I am wont to do that.”

Carter nodded to her acquiescence, and tapped his glass to hers. They provided a satisfying *tring*. “So, it’s time for you to join me, take a load off, and get yourself back together.”

Carter placed the bottle on a table, then reached for Reya’s hand and guided her onto the sofa. Reya sighed into the luxurious fabric, and allowed her muscles to relax, as Carter sat beside her. Then he reached for a control surface on one of the tables, and tapped a glowing icon. Slowly, the lights in the suite dimmed, and Beethoven’s Pastoral Symphony began to play in the background. At the same time, the wall screens activated, and peaceful natural scenes began to run, different on each screen.

Reya took all of this in with her mouth hanging open in surprise. Then she turned to Carter, and a new light was in her eyes. “Why, Lemuel Carter! I do believe you have more in mind here than simple rest and relaxation.”

In response, Carter reached for a folded bolt of cloth that sat on the head of the sofa. With one hand, he shook it out, and the cloth unfolded to reveal two white robes. He glanced down at Reya and smiled. "I'm a ship's Captain. It's my job to be prepared for every eventuality. More wine?"

Reya drained her glass, and held it out. "Please."

~

Walter Gordon looked about nervously as he entered the flight bay. He was nervous because he had the distinct feeling that if he stayed in the bay too long, someone would force him onto a ship and send him back to Earth... which, despite what everyone was claiming, he did not believe was now fifty million miles away. He hadn't gotten to where he was by being an idiot, and he knew something about physics. What everyone was telling him about being over Mars was just plain impossible.

But he felt he had to come down, because he'd gotten word from one of his freighter Captains, Roy Grand, that the *Makalu* was being forcibly appropriated by Verdant's CnC to be some kind of shuttle between Verdant and Earth. And despite Grand's assurance that Reya Luis promised to make it worth their while, she had also mentioned to Grand their intention to retrofit some type of equipment "to allow them to return to Earth." Since he didn't believe they weren't over Earth, he didn't trust the idea of retrofitting anything to his ship. For all he knew, they were planning to turn his freighter into some kind of flying bomb, fly it into Denver and drop it on the High House, and somehow blame him for starting World War Four. It was bad enough Julian Lenz had all but promised he'd be going back to Earth, whether he liked it or not... he had no intention of returning as a pariah.

So he stalked into the bay, looking furtively this way and that, until he reached the *Makalu*'s access tubes and started inside through the crew hatch. Just as he started aboard, Roy Grand stepped into the tube to exit. Gordon saw Grand first, and barked, "Roy! What-all's going on down here?"

Grand looked up at the sound of Gordon's voice. "Oh, hey, Mr. Gordon. Uh, the Verdant engineers just got here. They're in the engine bay—"

"They are?" Gordon growled as he shouldered past Grand and half-trotted towards the aft end of the freighter. "What are they putting into my ship?"

"Well, nothing yet," Grand said, reversing direction and following Gordon aft.

When they passed through the last cargo bulkhead, they came across over a dozen men and women, taking measurements, pointing at things, talking among each other. There was a room immediately adjacent to the main engine control room, and they seemed to be concentrated at the doorway to that room. A huge pile of equipment was gathered in a corner by the doorway, the only recognizable item being a brand new workstation standing on a dolly. Gordon stalked into the bay and shouted, "Who's in charge here?"

"That would be me." Lin Sen Chiu stepped aside of a group of technicians to see who had yelled out. "Who are you?"

"I'm Walter Gordon, and I own this freighter!" Gordon snapped. "Who do you guys think you are, coming down here and taking over my ship?"

"You're talking to the wrong guy," Chiu said simply. "We're just doing our jobs. Complaints go to CnC."

“Bullshit!” Gordon spat, physically shoving one engineer aside to glower down at the much shorter Chiu. “I’m not going to let you morons turn my ship into a flying weapon!”

“Weapon?” Grand repeated. “Boss—”

“Weapon?” Chiu echoed. “Mr. Gordon, we’re not arming your ship! We’re putting equipment on board that will allow you to make the trip home.”

“This ship can fly home just fine on its own!”

“Not from here, it can’t,” Chiu said calmly. “Or haven’t you been told where we are?”

“Over Mars?” Gordon sneered. “*Bullshit!* I don’t know what you guys are pulling, but I’m not like the idiots you’re used to dealing with!”

“Clearly,” Chiu said wryly. Before Gordon could reply, Chiu continued: “Look, Mr. Gordon, the deal is made, and I’m authorized to call security if you get in our way. So, if you need to talk to someone, go talk to CnC. Now, if you’ll excuse us—”

“You’re out of your minds!” Gordon bellowed, causing Chiu to nod at one of his technicians, who brought a com to her mouth. “I will not let you steal my ship, turn it into a flying bomb and drop it—”

“Boss, boss, *calm down!*” Roy Grand was suddenly alongside him, putting an arm across Gordon’s shoulders, drawing him aside. “They’re not gonna blow up anything!” In a lower voice, he added, “What are you so mad about? They’re paying us *four times scale*, both ways!”

“They’re setting us up!” Gordon snapped at him. “What’s wrong with you, Roy, you gone as stupid as the rest of these idiots? We are not over Mars! They’re soaking us! You don’t need special equipment to get home!”

A rhythmic tromping of boots brought everyone’s attention to the forward bulkhead, where two Verdant security men trotted inside. They noted Gordon and Grand, and one of them came to a stop by the two men, as the other stopped in front of Chiu.

“Officer,” Chiu said calmly, “Mr. Gordon, there, needs to be escorted to CnC to speak to a ranking officer about this project.”

“Yes, sir,” the officer nodded smartly. He then joined his partner to confront Gordon. “If you’ll accompany us, sir?”

“Dammit,” Gordon growled, showing no sign of being willing to leave. He glanced past the guards at Chui.

Chiu returned his look with a shrug. “The sooner you talk to CnC, the sooner you’ll have this situation worked out, Mr. Gordon,” he stated. He started to turn away, then threw back, “Thank you, officers.”

The officers took the hint. “Mister Gordon?” One of them raised an arm in the direction of the forward bulkhead hatch. Gordon glowered at them, and past them at Chiu, but finally, he realized he would get nowhere this way. Slowly he turned to go, the officers flanking him as he went.

In the meantime, Chiu had resumed speaking to the technicians. “So, in order to get the power converter in, we’re going to need to knock out a piece of the bulkhead between here and the fuel cell bank and—”

“Knock out bulkheads!” Gordon roared, and spun about to go after Chiu. The officers quickly grabbed him by each arm, yanking him almost bodily off his feet. “You don’t cut into *my* bulkheads. . . *dammit* , Roy, don’t let them cut up my ship! This is *bullshit*! I’ll *sue*! I’ll—” The officers dragged him out of the bay, kicking and screaming all the way, and when he was finally far enough away that the sound in the bay had resumed a conversational level, Chiu and the technicians got back to work.

~

“You’re already having second thoughts, aren’t you?”

Shay turned her head in the gloom of the bedroom, and looked at Gaston as he stared at the ceiling. He seemed calm, his arms back and cradling his head on the pillow. A very uncharacteristic pose for him. “Why would you say that?” she asked.

“Because the one thing you aren’t, is an actress,” Gaston replied calmly. Shay started to comment, but he amended, “Well, let’s say, not the best actress.” Shay made a wry face that was probably lost to him in the dark of the room, but she was sure she got her message across. “The word’s out,” Gaston continued. “It doesn’t look as though I’ll be able to stay on Verdant when this is over. . . not even as a private citizen. If I have to go back to Earth, I’ll be thrown out of office soon enough. I have a villa in New Hampshire, and I’ve made some good money, but. . . that’s all I’ll have when I get back. I won’t be getting more.”

In fact, he was severely understating his position. Between his villa, sitting on a few hundred acres of prime New Hampshire land, and at least four hundred million in the bank (according to best estimates), Lambert would be more than comfortable.

He finally turned his head towards her, and although she could not see his eyes, she could feel them upon her. “Not even you, eh?”

“I haven’t said I won’t go back to Earth with you,” Shay replied. “It’s just. . . not the outcome I expected, that’s all.”

“Nor I,” Gaston admitted. He did not speak for a time, then he sighed. “Well, I’ll be meeting Lenz in the morning. Maybe I can still pull something positive out of this. But I suppose you should give some thought to what you plan to do.”

Shay’s eyes widened in the gloom, remembering Kris Fawkes’ words to her. “I will.”

## 28: Coordination

14Aug2229

Julian instantly reflected upon how similar the morning seemed to that day, just over a week ago, when

President Lambert had walked into this self-same conference room and sat down to discuss the situation caused by the Yellowstone Caldera. He stood up out of his seat, as did Reya, Aaron, Kris Fawkes, Dr. Silver, and Lin Sen Chiu, as Lambert, Enu Thompson and a staffer none of them recognized entered the conference room, two American guards flanking them and stopping to remain outside the door with the two Verdant security officers. As one of the security men closed the door behind them, the group exchanged formal greetings as they did on that other day, as well.

The staffer was introduced as Anton Lavery, part of the American diplomatic corps and President Lambert's choice as the new American Liaison with the Verdant CnC. Lavery shook everyone's hand and smiled warmly, especially to Reya Luis, who could not help but notice how tall and handsome the man was. In fact, the two of them were recognized by everyone in the room to make a handsome-looking pair... an implication not lost on Julian as he considered their last choice of liaison. He stole a glance at Kris, but she gave no indication that she'd noticed. For her part, the smiles shared between her and the new liaison were blatantly mechanical, but they gave no other outward indication of contention between them.

There was one other difference he noted: Aaron seemed to reflect a subtle unhappiness with Kris, mostly avoiding speaking to her, and looking distinctly unhappy whenever he looked at her, or when she was in proximity to him. Aaron spared Julian any such looks, however... he probably didn't know about their night together, then. Julian had to assume that the information Kris had originally brought him, regarding Aaron and Silver's collaboration on the secretive quantum translation project, had come at the cost of their brief relationship. It had never really been a secret that she had been expressly chosen for the liaison post with the intent of having her use her "feminine wiles" to penetrate CnC for the President... but it had certainly been a surprise to Julian when she had confessed her newfound opposition to the President's intent to take over the satellite. Maybe she was simply the first to suspect she was on the *wrong* side... but she couldn't have known how things were going to turn out, and so she must have expected she was joining the *losing* side. That left a change of heart based on something else... and *she* had been waiting for *him* last night.

But whatever the reason, he was glad, even thankful, for her coming to him, and not because of the intrigues between Verdant and the U.S.: Last night hadn't happened because he did or did not trust her; but because he had *needed* her... needed *someone* ... and she had somehow known exactly what to do, to save him from becoming completely lost in a pit of despair that he might never have crawled out of. He had taken full advantage, too, completely unconcerned about any consequences. And now, he felt as if at least one ponderous weight had been lifted from his soul, by her intervention. And it seemed to make it easier for him to focus on the task at hand.

Finally, everyone sat down, Julian and Lambert at opposite ends of the table... already an unfortunate and adversarial beginning to the conversation, but at this stage, considered to be the most effective way to get things started.

"Thank you for coming, Mister President," Julian started as they settled in. "Let me begin by making it clear why we are here. This meeting is not about discussing terms of conflict between us. Rather, we want to discuss the details of returning Americans, as well as other citizens of Earth currently on Verdant, to their homes, and recovering our citizens presently on Earth."

"Are Americans to be considered political refugees, then? To be shipped off when it's inconvenient to have us around?" Lambert asked.

"Not at all," Julian stated. "We are simply giving them a free trip home during our present emergency. We don't want to see them inconvenienced by our situation any more than they have to be."

“So, sending Americans home is doing them a favor,” Thompson stated wryly.

Julian shrugged. “I suppose, given the current situation at home, that we’re not doing them any favors. However, we are acting in accordance with international law. According to our U.N. charter, we are bound to provide outgoing transportation to all visitors and visiting officials when conditions aboard the satellite threaten their safety.”

“With all due respect,” Thompson said, “things don’t look so dangerous around here.”

“We are currently orbiting a planet that is not Earth,” Julian pointed out needlessly. “That means our usual supply lines, the materials we need to survive, are for the moment severed. We are presently operating at level three restrictions, and until we return to Earth, we may need to move to level two restrictions soon.”

“And there aren’t too many levels beyond that,” Reya added.

“The point is,” Julian continued, throwing his executive officer a cooling look, “just because we’re all calmly sitting here, that doesn’t mean our situation isn’t serious.”

“You did suggest,” Lambert said, “that you can return this satellite to Earth orbit.”

“Yes, I did, and we can,” Julian nodded. He glanced at Dr. Silver, who did not contradict him. “However, I’m hesitant to do so unless I have a reasonable assurance that we will not be attacked when we get back. I’m sure you understand my position.”

Lambert asked, “What are you proposing?”

“To begin with,” Julian replied, “a simple show of good faith. The very first thing we will do will be to return the leader of the United States, his staff, and all American citizens, to their country... plus any residents of other countries that there is room for, on that first flight.”

“Flight?” Thompson interrupted.

“We’re preparing a ship,” Dr. Silver responded at once. “It will take everyone back to Earth, while Verdant stays here.”

Julian nodded to Lambert. “Once we’ve demonstrated that we have no interest in keeping Earth’s citizens here against their will, as political hostages, we’ll use that good faith demonstration to ask the U.N. for protection from an aggressor state.”

“But,” Kris spoke up, “we’re already getting off of the essential subject: The transfer.”

“Quite right, thank you,” Julian nodded to Kris, and pointedly ignored the look he saw in Aaron’s eyes. “Politics aside, this is about getting you all home.”

On cue, Reya lifted her datapad. “We’ve selected the freighter *Makalu*, in bay fifteen-west-A. It’s a Fargo-class freighter, fairly new and in excellent condition, and designed for variable cargo configurations. We plan to retrofit it with temporary seating for three hundred in its two forward bays. That, in addition for its existing seating capacity for twenty, in addition to its crew, is enough to get every American and most other Earth citizens on that first flight home.”

“You’re taking that ship?” Thompson asked.

“I’m afraid so,” Julian replied. “It’s owned by the Lusterne Corporation, an organization with which we’ve had a profitable past relationship... and as it so happens, its owner, Walter Gordon, is aboard. We’re in negotiations right now to provide mutually-agreeable compensation for his ship. Gordon is naturally upset about our commandeering his vessel, but these are the steps we had to take under the circumstances. As it is, we’re sure our compensation, plus his own insurance, will cover him.”

“That’s crazy,” Thompson complained. “We have Aerospace Force One here! We have passenger liners here! Why can’t we retrofit one of those?”

“Mainly,” Julian replied, “because we want to have it return with cargo, and it will be less work to fit it with temporary seating, than to rip out the bulkheads after the first leg to provide cargo space. And Aerospace Force One is simply too small to bring that many people back.”

Julian glanced at Reya, who continued. “We’ll send a message to Earth when we have a schedule set, giving them time to respond with alternate flight plans or course corrections, then again a few minutes before the ship is ready to leave. We’ll wait out the approximately fifteen minutes it will take for our message to get to Earth, add a minute or two, then jump back to Earth.”

“Jump?” Lambert repeated. “What does that mean? How does the process work? What will it be like on the passengers?”

Julian glanced over to Dr. Rios, who so far had shown no inclination to contribute to the conversation. He knew that his wife had returned home from the hospital, and from what Rios had told him, had suffered no ill-effects from her “irregular heart incident.” But Rios had been distant and distracted all morning, and Julian suspected his wife’s state was still heavy on his mind.

In the meantime, Dr. Silver addressed Lambert’s question. “In response to what it will be like, keep in mind that we’ve already done it once, and no one even realized it happened. There are no ill-effects caused by the process.” She pointedly stopped there, and turned to Julian.

“As far as the process itself,” Julian picked up, “I’m sure you’ll understand that we’re keeping that to ourselves at the moment, in the interest of self-protection.” Lambert and Thompson exchanged unhappy glances, but said nothing. “However, we are actively considering making the system available to other countries, in one form or another, down the line.”

Thompson immediately perked up. “You’re going to sell the process?”

“We haven’t decided on the particulars yet,” Julian told him. “There are a number of options that we’re evaluating. For now... consider it a bargaining chip, commensurate on a show of good faith to us.”

“I see,” Lambert nodded.

Reya lifted her datapad again. “We’ll be sending out messages to all visitors who will be assigned to the ship. We want to have your signatures accompany ours, so everyone is aware that this is a collaborative effort. And in order to put people’s minds at-ease, we’ll make sure we mention that you, Mister President, will be flying with them.”

Lambert seemed to bristle at her remark, though he did not say anything. Thompson, on the other hand,

snorted his derision. “Doesn’t matter if you tell them you’ll have naked stewardesses aboard. Most of them won’t want to leave. Are you prepared to arrest non-Verdant citizens and force them onto the ship?”

“Frankly, yes,” Julian replied. “Especially after you issue a presidential order to all American citizens, and we explain why this is required.”

“You are assuming a lot, Ceo,” Lambert stated.

“And you are assuming on our hospitality, and our patience!” Julian snapped back. “Two things that we can no longer afford, thanks to you. Mister President, you and your people are going home, whether you like it or not. Better get used to the idea.”

~

The message went out that afternoon, amidst consternation throughout Verdant: Residents were concerned that those being ordered to leave would retaliate against them; and those being told to leave were concerned that they would not be able to find a way around it.

Many of them attempted pre-emptive strikes, calling the Presidential compound or CnC and pleading their cases. In the case of those who called President Lambert, they were quite often told, “We’re doing everything we can,” but promised nothing. Those who called CnC were told “No” in no uncertain terms. The single exception was a citizen of Turkey who had come to Verdant’s low-gravity hospital ward with a heart-related ailment, and whose doctor provided ample documentation and a recommendation that he not be removed from the low-gravity ward.

Every other non-resident was told they would have to go. Most of them would fit on the freighter’s first trip, including every American aboard Verdant. A few citizens of other countries were told they would be sent back on a subsequent trip, but if they desired to leave sooner, they could make arrangements with any American who expressed a willingness to wait. CnC had no doubt that a non-American wishing to go home would have no trouble finding an American willing to trade places with them.

There was also the issue of taking things with them. Being that the *Makalu* was a freighter, there was room for the luggage of all visitors. However, some had spent considerably more time on Verdant, and had amassed more goods. There was also the matter of the thankfully few non-Verdant businesspeople being told they would have to leave and, fearing their goods would be looted while they were away, subsequently wanted to bring their business property with them. The most significant group, in that case, was the American compound... they refused to leave a stick of furniture behind. Kris Fawkes and her counterpart, Anton Lavary, had sequestered themselves for hours to discuss the situation, and considering the more obvious physical attributes of the both of them, a few outsiders were left wondering exactly which weapons of negotiation they might have been using on each other. But when they finally emerged, neither of them looking as if they’d done anything more than share a coffee, it was clear that Kris had prevailed, leaving the American compound with a weight limit for their property that would just allow them to take their worksystems and databanks with them, and leave everything else for later trips.

And that turned out to be the last anyone in CnC saw of Anton Lavary.

~

“Are you telling me that I’m supposed to leave this station, and leave Aerospace Force One behind?” Col. Emily Stearns rose up to her full height, which put her over a head higher than Reya Luis, and waved



an arm at Aerospace Force One in her bay. Nevertheless, Reya did not shrink back from the enraged officer. “That’s an illegal order! I refuse to leave my ship!”

“You have no choice in the matter, Colonel,” Reya told her calmly, shaking her head in sympathy. “All Americans are being sent home. Unfortunately, we don’t have the means of sending every American ship home. So it’s going to have to stay here until we return to Earth... at which time, you’ll be allowed to retrieve it.”

“And when will that be?” Stearns demanded.

“We don’t know yet,” Reya replied. “That will depend on negotiations with the U.N. and other governments, and when it is established that we can return home safely—”

“This is *bullshit!*” Stearns cut her off, and drawing glances from around the bay. “You can’t just commandeer Aerospace Force One! You said yourself, we’re not at war!”

“We’re not ‘commandeering’ anything!” Reya snapped back. “We don’t even want the damned thing!” Stearns’ eyes popped, as if she’d been slapped in the face. “It’s just going to sit there, just like that, until we can return and let you have the damned thing back!”

“That ‘damned thing’,” Stearns retorted, “is one of the most sophisticated and secure craft in the United States’ possession!”

“So lock the door when you get out!” Reya threw out her arm at the craft, and the datapad she gripped in her hand almost flew free. If it had left her hand, Reya realized grimly, it would certainly have struck AF1, and Stearns and her crew would have been torn between trying to arrest her, and repairing the paint job. “I don’t care what you do with it... but I can assure you, if you bobby-trap that ship and it harms a single Verdant resident, you will be held accountable! So do what you have to do. End of discussion!”

With that, Reya turned and strode away, heading for the next ship’s Captain she’d have to talk to, and muttering to herself in Spanish: “God help me, if they’re all like this, I’m going to strangle someone *within the hour* ...”

Stearns stood there, plainly fuming, prompting the crew and mechanics working around Aerospace Force One to move quietly to other areas of the bay. Then she turned and strode off, headed for the Presidential compound.

~

Aaron Hardy entered CnC and looked about the room, examining the activity at each workstation. Those who knew the organization of CnC well enough eventually reached a point where they could take note of which workstations indicated the most activity, put the combinations together, and come to a reasonably accurate guess as to what was going on in Verdant. After sweeping the room, he stepped over to Julian, who was hovering over one of the stations. Kris was nearby, at another workstation, and noted Aaron’s approach without reacting.

“Getting some missing persons reports?”

Kris looked up at Aaron’s question, surprise evident on her face. Aaron did not react to her directly, but a smug look came to his face. *Maybe you were a bit fast giving up on me...*

Julian looked at Aaron too, and nodded. “Mostly Americans who aren’t showing up at expected meetings, lunches, that kind of thing.”

“And we haven’t even told them when they’re leaving. I suppose we’ll be seeing more of that when it comes time.”

“How is Dr. Silver doing on that?”

“She says it’s going well,” Aaron replied. “She expects to be done in three to five days, depending on the breaks. Calibrating the system, and writing the translation equations, is apparently a sticky job.”

Julian nodded. “Keep me posted. I want to know as soon as we can set a date and time for launch.”

“Of course.” Aaron turned and left CnC, headed for his office.

Kris watched him go, and Julian noticed Kris. After a moment, he said in a low voice, “He’s no idiot, you know. Just because Silver fooled him—”

“I know,” Kris replied quickly. “He’s just more concerned about himself, than about Verdant. And I’m more concerned about Verdant, than about him.”

~

“There’s not a damned thing we can do about it,” Enu Thompson told Stearns. He regarded her calmly, taking note of how well she fit her uniform when standing at attention before him, but mindful of how much of a mistake it would be to approach her in her present state of mind. “There are a lot of ships that are going to be left behind, not just AF1.”

“I know, sir, but it’s AF1!” Stearns insisted. “If there’s any ship we shouldn’t be leaving here, it’s that one!”

“I know, I know,” Thompson nodded sourly. He was as well-aware as Stearns what technological and political secrets could be obtained from that ship, if it were examined by an enemy state. He honestly doubted that the leaders of Verdant would go so far as to try to break into Aerospace Force One, however, so he was relatively sure it was in no risk from—

Something occurred to him. Stearns was about to speak, but he put up a single finger, and she stayed silent. After a few seconds’ consideration, Thompson started speaking in a very deliberate manner. “The United States is at a serious disadvantage here... at the mercy of a foreign power, who could at any time decide to turn on us. Under the circumstances, they can be considered to be taking actions that are hostile to us. All the same, I do not believe they will try *to board or search Aerospace Force One*. So my recommendation would be to secure the ship and prepare to return to Earth on the freighter.”

Thompson paused and eyed Stearns carefully, to make sure she was following him. He saw a distinct light in her eyes, and he nodded slightly. “Now, if, after the freighter has left, something were to happen in CnC... and their command structure should have a change of heart... we might be able to return to Verdant, and secure our rightful property. I think we shall have to plan for that contingency. Do you understand, Colonel?”

Stearns lifted her chin perceptively. “Yes, sir.”

“Good. Make your preparations, then,” Thompson said. “Dismissed.”

Stearns turned and marched out of Thompson’s office. Thompson leaned back in his chair, and considered that he might, if he was very, very lucky, have solved their problems once and for all. Smiling in satisfaction, he reached for the desk and tapped an icon. “Miss Taurus? Please come into my office, and bring your mission kit. *Thered* one.”

~

When Calvin returned home, he noted the quiet in the flat. Often Maria would have music playing in the room where she was working or relaxing, but today he heard no music. As he moved further into the house, however, he realized he did hear voices. He moved in the direction of the bedroom, and before he reached it, he could tell that the voices he heard were Maria, and one other, speaking conversationally.

He pushed the door open, and saw Maria sitting at the edge of the bed, speaking to the com on the nightstand. She looked up and smiled when Calvin entered, as the voice from the com went on. *“Eddie says he’s going to have to leave a lot of his business assets behind, and he’s very upset. He said to me, it doesn’t matter how temporary this is, it’s going to cost me a lot of money!”*

“I’m hearing that from a lot of people,” Maria said, nodding, and glanced at Calvin. “Listen, Cathy, Cal just got home. Let me call you back later. Tell Eddie it’ll be okay.”

*“All right. Talk to you later.”*

The com clicked off, and Maria turned to Calvin. “Hi, honey. I guess you know, the news is everywhere.”

“Sure,” he said, coming over and sitting by his wife. “I was in the meeting. We decided to get the word out immediately. By now, every non-Verdant has been notified.”

“It’s on the news, too,” Maria added. “A lot of people are upset. It’s a shame, isn’t it?”

“It is,” Calvin agreed. “We can only hope the governments cooperate, and we don’t have to drag this out.”

Maria looked at Calvin, catching his meaning. “It could be awhile before we get back to Earth, couldn’t it?”

Calvin shrugged. “It could. I sure hope not.” He glanced around the bedroom. “Are you feeling okay today? I didn’t think—”

“Oh, I’m fine,” Maria replied, patting him on the knee. “Cathy’s call caught me in here while I was straightening up.” She indicated the fact that she was, in fact, fully clothed. “I wasn’t hanging out in bed, I promise!”

“Good,” Calvin smiled. “Later today, I’ve got to go to the studio, then do some shoots about our new transportation system. Want to go for a walk before I have to go?”

“Sure. I’ll find my walking shoes.”

# 29: Mysteries

15Aug2229

“Jules? Something you should see.”

Julian turned to Reya as she approached him, juggling a datapad in one hand as if she was about to toss it to him. She inclined her head in a silent signal to move away from the nearest workstation, and give them a bit of privacy. Julian cocked an inquisitive eyebrow at her, but he complied, shifting to the corner of the room away from the CnC technicians.

“I’ve been examining the data from the GLIS,” Reya said in a voice pitched so only Julian could hear. “Trying to figure out how Silver’s supplies got rerouted without our seeing it. But I came across something else.” She handed the pad to Julian, and he looked at the supplies tracking tables displayed on it. She used her pinky to point out individual cells on the tables, which she had already highlighted in yellow. “It seems the GLIS has been stockpiling all kinds of things in the last month... not just Silver’s quantum-thingy.”

Julian looked at her with a slight smile. “You don’t like to call it the Silver Drive?” he asked, using the name that had begun to be bandied about among the senior CnC staff.

“I’d rather call it the bane of my existence,” Reya retorted lightly. “But enough about my pet peeves. Jules, look at these. These supplies levels are considerably higher than our standard usage procedures dictate. Apparently, supplies orders have been undergoing a creative method of rounding figures up or down, in such a way that we’ve been taking in more supplies than we’ve been using. In a lot of areas.”

“Basic atmospheric chemicals,” Julian said aloud as he read the tables. “Fertilizers. Manufacturing carbon. Vitamin supplements.” After a moment, Julian shook his head. “This is odd. Who’s behind it?”

“That’s the part that makes it doubly odd,” Reya told him. “There’s no sign that these orders were manipulated by Aaron, any of his staff, or any of the departments on the receiving end of these orders. They were all handled automatically, as they always have been, by the GLIS.”

Julian met Reya’s eyes in puzzlement. “All of these are things that would benefit Verdant to have during an extended cessation of supplies deliveries from Earth.”

“Right,” Reya nodded. “And according to this, they’ve been in the process of being hoarded for the past month.”

“But by the GLIS? No,” Julian shook his head more insistently this time. “I don’t suppose you asked the GLIS about the orders?”

“Sure,” Reya replied. “It gives me dates and times for every order. But when I ask about the amounts and surpluses, it just starts throwing dates and numbers at me, that it knows I can’t keep track of. Like it’s trying to confuse me!”

“You’re anthropomorphizing,” Julian said. “The Governing Logistics Intelligence System is just a big computer... that’s all. You must have missed something. It must have been someone on Silver’s staff. Or maybe Aaron really is that good at his job.”

“No one’s this good,” Reya maintained. “Look at the time stamps. Those orders were placed, edited, and processed, in milliseconds of each other. Even a specially-written program input into the GLIS would take longer than that to process each order, because of the anti-tampering protocols it would have to clear. I’m telling you, the GLIS itself has been independently stockpiling supplies for us.”

Julian stared hard at the datapad, looking for an alternative to her conclusions... but seeing none. After a few moments, he let the datapad fall to his side, and he stared at Reya. “That’s just impossible.”

Reya shot him a wry look. “We’re over *Mars*, Jules. You tell me what’s impossible.”

~

*“What do you think, Doctor?”*

Calvin glanced again at the data Julian had forwarded, then looked dubiously at Julian’s image on his com screen. “Sir, this isn’t a nineteen-hundreds movie. Unlike the early days of buggy computer processors, people nowadays know that intelligence systems can’t do things that weren’t programmed into them in the first place. There’s nothing conscious or spontaneous about ISEs. I can only assume someone managed to get into the GLIS and reprogram its supplies protocols in such a clever way as to have that reprogramming escape your ability to locate it. And now that we know how long Dr. Silver has had this drive of hers working in the background, I can’t imagine it being anyone other than someone on her staff... or Dr. Silver herself.”

*“Those were my thoughts, too,”* Julian said, *“but it’s better to hear you say them.”*

“At least,” Calvin pointed out, “if it’s true, it means that much more of a supplies buffer, keeping us farther from a level two conservation state. I’m thinking of an old saying about gift horses.”

Julian smiled. *“Good point. We can always look into that mystery later. You’re going to do your reports on the workings of the Silver drive today, right?”*

“Right, I’ll be leaving in a few minutes,” Calvin said. “The plan is still to do a presentation that stops short of providing essential details about the system... something for general consumption. That’s still right, isn’t it?”

*“That’s right,”* Julian confirmed. *“Something for the masses, the politicians and the media... everyone but the scientists, basically. Until we decide on the future of this drive system, we’ll keep the essential details to ourselves.”*

“No problem,” Calvin said wryly. “If they captured me, drugged me, and threatened to turn my guts into guitar strings, I still probably couldn’t give them any essential details!”

Julian signed off, and Calvin went back to assembling his wardrobe for the studio sessions, which he would take with him and change when he arrived. He glanced up when he realized Maria was at the door.

“Please tell me you didn’t hear that,” Calvin said.

“That our Ceo thinks an IS is conscious?” Maria smiled. “No. I didn’t hear a thing.”

“Good,” Calvin nodded. “And make sure none of your friends hear about it, either. A silly rumor like that would just upset people.”

“If it didn’t make them keel over laughing,” Maria said. She watched him as he collected his clothing and folded it into a bag, having seen him prepare for studio sessions before. “How long do you think you’ll be?”

“I should be home by dinner,” Calvin replied. “Possibly sooner. But this is pretty new, and we may have some back and forth figuring out how to best present some of it. Are you going to be okay?”

“Sure, I’ll be fine,” Maria said. “Go get your work done. I have some shopping to do, myself.”

Calvin gathered up his suit bag and headed for the door. On his way, he gave Maria a kiss. “See you tonight, honey. Be good.”

“I will,” she said as he headed for the front door.

~

“All right, cut, cut! Cut!”

Calvin stopped walking and speaking, and mentally kicked himself. He didn’t have to ask his director what he’d done wrong... he’d screwed up his pacing. *Again*. He turned about to face his director, Pete Bell, as he shuffled over to him in frustration.

“Cal, come on, that’s six times today! What’s wrong with you? You’re stumbling around the set like a blind-deaf rookie with club feet! You’d think you’d never been on a set!”

Calvin, in response, looked around at the room he was standing in, essentially an open-sided and empty space with bright green walls, floor and ceiling, decorated only with tape that demarcated the objects that would be added in later by the special effects teams. Pete was right, he’d worked in a thousand stages like this, and it was second-nature to him to be able to imagine his surroundings well enough to move naturally through them, to properly time his pace and motions to the IS-generated backgrounds, and to present the impression that he was in actual surroundings.

But today, it was just a big green room.

Calvin raised his hand to scratch his head... then refrained, mindful of getting dandruff flakes on his dark jacket. “I know, Pete, I’m sorry.”

“Sorry? You’re catatonic!” Pete and Calvin had worked many times before, and they knew how to talk to each other. Though Pete’s words were harsh, Calvin knew the kind of words Pete used when he was really mad, so he didn’t take the abuse personally. “I mean, six times! You are not in this game! Where are you?”

Calvin immediately thought of Maria. Pete couldn’t miss the change in his expression, and he closed his mouth and took a harder look at Calvin. After a moment, he turned around and said, “Okay, shut it down. We’re done here today.” Calvin looked up in dismay as the crews began shutting down the lights

and scanners around the stage, and started to protest to Pete. But before he could speak, Pete said, “There’s no point continuing the stage work today, you’re just not getting it. Tell you what, though: Let’s try the location. Maybe if you can walk around real objects, it’ll help your focus.”

Calvin paused only a moment before nodding. “Sure, Pete. I’m game.”

“Good,” Pete said. “Okay, remote unit, pack up. Let’s hit the freighter.”

The crews assembled their remote gear, as Calvin removed his jacket to keep it wrinkle-free, and an aid brought him his suit bag to slip it into. Pete appeared again at his side, and said, “Let’s go. We’ll scope out the space before the guys get set up.”

~

The engine bays of the *Makalu* were still abuzz with people and equipment, constantly coming in and out... it seemed to Roy that the activity had not stopped, even for sleep. As Verdant security guards constantly looked on, lab-coated technicians and engineers swarmed over the strange apparatus and its attendant plumbing, in the bay next to the main engine control bay.

Every now and then, Roy had the chance to peek inside the bay when the others parted enough to permit a view. But his view told him nothing. He had no idea what the two main objects, the rectangular assembly and the cable-infested globe, were supposed to do, and he couldn’t begin to imagine what the three new workstations were needed for. But just by the looks of it, the frightening number of interconnected modules throughout the bay, and the heavy-duty supporting beams being punched through his bulkheads and anchored to the ship’s very framework, he could tell it all meant business.

He became aware of a new group of voices, approaching from outside, and turned about. He immediately recognized Dr. Calvin Rios, and his eyes popped a bit as he came over to him and the man walking in with him.

“Dr. Rios? I’m Captain Roy Grand of the *Makalu*. It’s a pleasure to meet you! I loved *Universe Three*!”

Calvin accepted his hand graciously. “Nice to meet you, Captain. So, you’re the one who’s getting his ship outfitted to make history!”

Roy looked over his shoulder, and smiled. “I guess so. Trust me, I couldn’t tell you if all that stuff back there is going to fly me back to Earth, or make me ice cream.”

“No ice cream out of this, I’m afraid.” Everyone looked back at the bay, to see Dr. Silver step out. “I thought that was you I heard, Doctor.”

“How’s everything going down here?” Calvin asked.

“About as we expected, fortunately,” Silver replied. “The assembly is almost done, and we still have the translation calculations to nail down, but we expect to be ready for the test-flight in two more days. We’ve also had a few instances of people trying to sneak in here and get a better look at things, but Captain Grand and our security boys have managed to keep them out...” She paused when she saw the first of Pete’s camera crew stepping into the bays, and glanced at Calvin in confusion. “I thought you wouldn’t be down here until tomorrow?”

“That was the plan,” Pete admitted, and looked at Calvin.

Calvin, in turn, rolled his eyes apologetically. “My fault. Studio shooting wasn’t going well. We were hoping we could get some of our scenes done here now, so as not to waste the day. Can your people work as we record?”

“To an extent,” Dr. Silver replied. “But the idea was to keep anyone from seeing sensitive details of the equipment, wasn’t it?”

“It still is,” Calvin replied. “If you want to cover things up, Pete’s guys can clean it up in post.”

“Oh, thank you for telling me how to do my job,” Pete said sarcastically.

Calvin noted the remark, then added to Dr. Silver, “You can watch and make sure we don’t get into anything we shouldn’t. We’ll defer to you.”

Dr. Silver considered a moment, glancing back into the bay. Finally, she nodded. “All right. Let me get some things under wraps, first, all right?”

“Sure,” Calvin said, following her into the bay as Pete turned to converse with his remote crew. Calvin took in the bay, now looking like a miniature of the storage space that he had translated an entire satellite. “It scales down nicely, I see,” he commented. “The power requirements are a logarithmic step-down from the large set-up, right?”

“Yes,” Dr. Silver confirmed. “Otherwise, we would have needed to figure out how to squeeze one of those gigacapacitors in here.” She turned and eyed Calvin appreciatively. “You seem to be getting a good grasp of the system, Doctor.”

“I’m doing my best,” Calvin smiled. Something occurred to him. “Like your adjustments to the GLIS. Very clean programming. We almost didn’t see it for what it was.”

Dr. Silver looked at Calvin. “I’m not following.”

“I think you under-estimated your nitrogen levels, though... they seem way too low. Or did you mean to start sooner, and work your way up to more suitable levels?”

There was a long pause as Dr. Silver regarded Calvin. Finally, she said, “I don’t know what you’re talking about. The GLIS doesn’t control any part of this process. Don’t you remember how it shut down over the inconsistencies in its time-coordinate subroutines?”

“No: I mean your use of the GLIS in advance to arrange and transfer the supplies you needed for your quantum system,” Calvin stated more than asked.

“Yes,” Dr. Silver replied.

“And,” he added, “for *other* supplies, too.”

Dr. Silver stared at Calvin for a moment, before she said: “*Nitrogen?* Dr. Rios, what are you getting at?”

Calvin started to respond, then stopped, reconsidering. He remembered how Ceo Lenz had asked her



whether she had considered Verdant's lower solar power intake before moving them to Mars, and she had reacted as if she had either not thought about it, or dismissed the issue. And if she hadn't bothered about that... why expect her to have organized the hoarding of supplies?

But if she hadn't... who had?

"Doctor," he said presently, "I think I was making a false assumption. I apologize."

"That's all right," Silver replied, but her face reflected her curiosity. It took her a moment before she finally turned about and started directing her people to cover up certain components of the quantum system.

~

"And here it is."

Calvin said those words as he stepped into the bay, as if he'd only just arrived. The recording crew zoomed back to get more of the bay into view, then panned left until the largest components of the quantum translation system were in view. Calvin walked casually over to it, patting the spherical component gently as he went on.

"This is an appropriately scaled down version of the system that moved Verdant, but it does exactly the same job. Fortunately, the amount of energy needed to move individual craft is smaller by a factor of magnitude, so we expect most spacecraft can be equipped with the Silver drive with only a minor boosting of their standard power output.

"As I described earlier," he went on, pointedly ignoring Pete's wide grin, and Dr. Silver's rolling her eyes in mortification, "that power is processed by this specially-designed laser, and fired into the components inside the sphere. That creates the effect that moves the craft instantaneously, from one point to another. The system is primarily controlled by one workstation, with two others for subsystems monitoring. With this smaller system, the additional workstations needed to balance the incredible amounts of power needed to move Verdant aren't needed here."

Calvin gestured at a panel on the wall, just beyond a strut that bored right into the wall, which contained numerous cable and hose pass-throughs. "Through there is the main engine control bay, which required very little modification to accommodate the system, other than power rerouting and rebalancing. Considering the system's sophistication, it is relatively easy to incorporate into existing systems, and just needs to be properly configured for the craft in order to function. Once we're a bit more experienced with the installation procedure, we hope to be able to install the Silver drive into any type of ship we desire."

"Cut," Pete said, coming around the lead camera. Dr. Silver followed him. "That was better than the second one, Cal. We'll go with that take."

"Worked for me, too," Calvin replied, glad that he had managed to get himself together enough to get some recording done.

"I'd like to know," Dr. Silver said as she approached, "whose bright idea it was to call this the Silver drive?"

Calvin shrugged amiably. "I'd suggest you talk to Aaron... don't look at me! Besides, why wouldn't

you want what will surely be the most fantastic invention of the twenty-third century named after you?"

"For one thing," Dr. Silver replied, "because it's not a drive! And for another, because it wasn't my work alone. Half of my staff worked on it at one point or another... so did you, Dr. Rios. The credit shouldn't be mine alone."

"Well," Pete asked, her, "what would you call it?"

Dr. Silver looked at Pete and said, "The Verdant system."

~

On his way out of the *Makalu*, Calvin glanced back at the freighter, musing over the role such a nondescript craft would soon be playing in the future of human transportation. Pete and his crew were still finishing up and taking additional recordings, under Dr. Silver's supervision, but Calvin was no longer needed, so Pete had let him go for the day.

As he headed for the lifts out of the bay, he noticed a rather attractive woman approaching him, and he slowed as she approached. "Excuse me," she said, "You're Doctor Calvin Rios, aren't you?"

"Yes, I am," Calvin replied. "And you are?"

"Oh, I'm Emily," the woman replied quickly. "I just wanted to come over to tell you that my daughter absolutely loved your show! I could even say that you helped inspire her to study the sciences when she starts college!"

"Well, that's great! I'm sure you're very proud."

"Oh, yes, I am... and so grateful to men like you!" As she spoke, she reached into a severe-looking shoulder bag and pulled out a small workpad. Holding it out to Calvin, she said, "I wonder, could I get an autograph I could give to her? Her name is Karen. She would be so thrilled!"

"Glad to," Calvin said as he took the pad and removed its stylus. "Karen, you said?"

"Yes, yes," Emily smiled. She glanced over at the freighter he'd just exited. "They say around here that they're installing that secret drive on that freighter... is that right?"

"Yes, they are," Calvin replied as he finished a short dedication and signed it. He handed the pad to Emily, and when she reached out to take it, her hand wrapped around Calvin's for a moment. Upon realizing what she'd done, she blushed, and smiled prettily as she took the pad back. Calvin felt he colored a bit, too, and smiled warmly back at her.

"Sorry," Emily said. "Thank you *again*, thank you *so* much." Then she smiled mischievously, stepped forward and leaned close to Calvin. Calvin, expecting a grateful peck on the cheek for the autograph, did not pull back from her advance. When their heads were only inches apart, she glanced back at the freighter, and whispered, "What does it *do*?"

"Huh?" Calvin said, leaning back in surprise.

"How does it *work*?" Emily asked. "The *secret drive*. Y'know, just between us. I mean, it's not dangerous, is it? Is there radiation? Does it, I don't know, *warp space* or something?" She gazed adoringly

at Calvin, and took a hopeful step toward him. “*What?*”

“Sorry,” Calvin said, “but I can’t say—”

“Oh, come on, Doctor,” Emily said, wrapping a hand around his arm. “If Karen could tell her friends she knew something about it...!” She tightened her grip on his arm, as if to suggest that he’d be earning much more than gratitude... and certainly not from Emily’s daughter. “Just *ahint* ! Please...”

“I’ve got to go,” Calvin said, managing a smile, and gently sliding his arm out of her clinging hand. “Late for dinner... with the wife,” he added self-consciously. “Really sorry about that. Say ‘Hi’ to Karen for me. ‘Bye!’”

Calvin headed away at a slightly faster-than-normal gait, pointedly not looking back. The woman watched him go, and slowly, her posture and expression changed, abandoning the airs of a slightly-forward, excitable mother and shifting into the ramrod-erect stance of a career military officer. Col. Emily Stearns waited until Calvin was out of sight, then she stuffed the pad in her bag, and sniffed indifferently. “It was worth a shot,” she said to herself.

~

As Calvin stepped into his flat, he said, “I swear, sometimes autograph hounds surprise even me.” He closed the door behind him, and only then realized that likely no one had heard him. “Maria?”

After a few moments, he heard footsteps approaching, and Erin came around the corner. “Hi, Daddy!”

“Hi, hon,” Calvin smiled, giving her a hug. “Where’s your Mom? I don’t suppose she’s got dinner started.”

Erin looked past her father, then up at him. “She wasn’t with you?”

## 30: Missing Persons

### 16Aug2229

Calvin trudged into the North 9 clinic—he had already lost track of how many hospitals and clinics he had visited throughout the night—and searched, bleary-eyed, for the main desk. When he located it, he headed in that direction and unintentionally dropped his hands loudly on the desk when he reached it.

The receptionist, who had been busy at her workstation, looked up in surprise when he thumped onto her desk. “Oh! Are you all right?”

“I’m looking for my wife,” Calvin said. “Maria Rios. Someone I spoke to said there were a number of unidentified women here...”

The receptionist nodded, and one arm pointed down the corridor. “First door to the right, you can see it there.”

“Thank you,” Calvin mumbled, and moved on. He reached the door, which slid open upon his approach, and he stepped inside.

He found he was in a large room full of chairs, small tables, and status screens on the walls. There were literally scores of people in the room, sitting alone or in groups, waiting for he didn’t know what.

“Maria?” Calvin called out. Many people looked up at the sound of his voice, but no one responded. He began to move through the room, occasionally blinking hard to clear his sleepless eyes, and examined the people he passed. *What was a clinic doing with such a large waiting room?* A few of them seemed to recognize him, but other than an occasional “Dr. Rios?” no one else approached or otherwise spoke to him.

Abruptly, Calvin became aware of a hand on his arm. He spun around, hoping he’d found his wife. Instead, a man of perhaps thirty looked back at him. “You’re Dr. Rios, aren’t you? I heard from Janis that you’d called.”

“Does anyone here know about my wife?” Calvin asked, a trace of desperation escaping his voice.

“Doctor, sit down a minute,” the man urged him, and as he steered him into a chair, he nodded to someone. Calvin was reluctant, but he was also exhausted, and he could not resist as the man pushed him into the chair. “I’m Doctor Hall,” the man introduced himself. “We met a few years ago at a symposium, but I doubt you remember. We’ve been on the lookout for Mrs. Rios, ever since we heard. Unfortunately, we’re having a rash of incidents today, and it’s made identification of visitors difficult.” At that moment, someone came up to Dr. Hall with a small white cup, and handed it to him. Hall, in turn, handed the cup to Calvin. “Here, drink this. You’re exhausted.”

“Been looking all night,” Calvin muttered, drinking the contents of the cup. “What’s going on...?”

“There’ve been a rash of attacks throughout Verdant,” Dr. Hall explained. “Apparently there are some Verdant visitors who seem to think they can obtain the idents of Verdant citizens, and avoid having to go home on that freighter. Stupid idea, really, but apparently, desperate situations merit desperate acts...”

“Yes...” Calvin’s head was clearing—presumably thanks to whatever Dr. Hall had given him to drink—and he was remembering other people, at other clinics and hospitals, telling him the same thing. “Yes... of course. I understand.”

“Doctor,” Hall said, “I sincerely hope your wife is all right. However, whatever shape she’s in, you won’t be much help to her if you’re exhausted. Under the circumstances, I’d suggest you go home and wait to hear from her.”

“Can’t do that,” Calvin muttered. “I almost lost her once...when I was too busy to realize...” He pinched his eyes shut, fighting back a sudden onrush of tears. When they opened again, there was a renewed fire in his eyes. “I won’t let that happen again. Wherever she is... I’ll find her.”

“Of course,” Dr. Hall muttered, seemingly torn between trying to help Calvin, and tending to other duties that were obviously pressing on him. “Please, rest here a bit, Doctor. You need the break. Rest assured, we have your wife’s ident data, if she shows up, we’ll contact you.” Dr. Hall stood up, responding to an intern waving him over. To Calvin, he said, “I’ll be around if you need anything.” Then he was gone.

Calvin sat there and rested for a few minutes... even after the stimulant Dr. Hall had given him, he could

barely move. But abruptly, he had a vision of his wife, lying somewhere alone and calling out to him... and suddenly, he was up, moving rapidly through the waiting area. After giving one last look to every person in the room, he half-stumbled out of the clinic and towards his next stop.

As he walked, he felt his com buzz in his pocket. He pulled his com up to his face to see the ID on the screen, before he thumbed it on. "Erin? Have you found anything?"

*"Not yet,"* Erin said. *"I just came out of the clinic on the far 15, but no one's seen her."*

"Yeah," Calvin replied dejectedly. "Honey, maybe you should go on home, you've been up and out all night—" even as he said it, he reflected on all the assaults he'd witnessed overnight, and regretted that he hadn't made her stay home in the first place.

*"So have you,"* Erin pointed out defensively. *"Tell you what: I have one other place to check. Then I need to get some sleep, I'm dead on my feet. And I know you are, too."*

Calvin nodded to himself. "Go check your last place, then go home. And be careful, people are being attacked out here! I'll see you at home." He jammed the com back in his pocket, and turned to enter a nearby double-door that slid open for him.

~

It was a repeat of the last clinic in some ways, though by no means was the waiting room as large, as comfortable, or as inviting.

But then, it was a security station.

As Calvin trudged through the sea of faces seated at uncomfortable chairs arranged in grids and open-ended boxes, a security officer followed alongside him. He split his attention between looking at the people Calvin examined, and peering over a datapad he carried in front of him.

"As you can see," the officer told Calvin, "it's been another bad night around here. A lot of these people were picked up by us, either with no ident fob, or claiming to be someone they're not... or just plain refusing to tell us who they are. A lot of people are hoping to avoid that ship-ride back to Earth."

"So I've been told," Calvin commented.

The officer nodded. "Anyway, our Positive-ID teams are working overtime going through these people. See, it's three guys, and they're split between calls at every security office. Add to that the assault reports we're getting, and it's just been hell trying to keep track of anyone."

"I understand," Calvin said.

At that moment, the main doors opened, and a security guard escorted two men into the office, cuffed to each other. The two men argued with each other, and with the officer, talking over each other nonstop: "Get me out of these cuffs! The ident was *mine*, God-dammit!" "It's mine! That holo doesn't look anything like you!" "I'm a resident! I have *rights*!" "You have no business arresting me just to check *this* identity!" "Knock that off! I'm the resident here!" "Like hell! *You* jumped *me*! Get me away from this lying American!" "American? I was born in *Lyon*, you *cretin*!" "See! *It* told you! He just said he was from Earth!" "And where were you born, buddy? *Neptune*?..."

The shouting match continued on until the pair were sent through a door and into another chamber, bringing the amount of noise in the waiting area back to a conversational level. “Look, Doctor,” the officer said, turning back to Calvin. “The good news is, your wife won’t be trying to hide her identity. If she turns up, we won’t have trouble identifying her... she’ll probably identify herself, right off... and we’ll know to call you.”

“Mmm,” Calvin said, nodding absently.

“I’d suggest you go home, Doctor,” the officer said. “You look exhausted, anyway. Won’t do your wife any good if you collapse too, will ya?”

“I suppose... not...”

“Right,” the officer said, physically steering Calvin for the main doors. “So go get some rest, and don’t worry. The minute your wife turns up, you’ll be called.”

“Yeah...” Calvin allowed himself to be led out of the room, catching one last glance at the women he passed, to make sure none of them were Maria. A few had their heads down in supplication, presumably because their bid to hide themselves from the authorities had failed, and they would be forced to go back to Earth. Calvin made sure he got a good look at them, too.

~

Erin crouched on her haunches and examined the dark circular plot of smothered ashes on the ground before her. A fire had burned there the night before... Erin had spent enough time camping to know the signs. Especially in this particular spot, where she and her parents had camped many times before.

Until her mother had gotten increasingly dissatisfied with camping, anywhere in Verdant. She had begun to complain about everything, from the feel of the dirt, to the texture of the leaves, to the very smell of the forest. And especially, of the stars above, that were not really stars at all, but the streetlights and window reflections from the other side of Verdant’s interior cylinder.

She’d taken to comparing everything in the park—no, everything in Verdant—to Earth. And everything in Verdant always came up wanting. And she and her father had gotten increasingly tired of hearing about it.

So they had cut back on their camping trips. Even the last attempt, aborted at the last minute thanks to the Yellowstone crisis, had been considered by Erin to be somewhat of a blessing, because although she still loved camping, she had not looked forward to listening to her mother’s barely-restrained complaints.

And now, here she was, at the spot they would have come to, staring at a fire from the night before. Nearby were signs of one sleeping bag, and a small amount of provisions.

They had camped out many, many times. The method of smothering, stirring, re-smothering, stamping, stirring and re-smothering the coals was clearly evident to Erin. Her mother did it like that all the time.

Erin finally stood up, scanned around her, and bit her lip in frustration as a tear formed in the corner of her eye. She was honestly not sure what to be more upset about: That her mother would actually run away from her and her father; or that she would choose here, of all places, to run to.

~

Calvin moved so slowly down the sidewalks that people twice his age found themselves steering wide to pass him. This was probably the only reason that no one walked into him from behind, in the moment that he froze unexpectedly in his tracks.

He was so tired that, at first, he wasn't sure himself what had prompted him to stop, and he had to mentally cast about for a reason. Something someone had said to him about Maria, something that had been rattling about his head for the past hour or more...

Like a slowly-clearing fog, Calvin's memories began to coalesce. A security officer had spoken to him, yes, about finding Maria. And he didn't seem to think she would be hard to find... why? What had he said?...

She'll probably identify herself.

Calvin thought about that. *Of course*, she'd identify herself. She would want people to know who she was... so she could go *home*. She would want to be identifiable, among all the others who were hiding, stealing Idents, trying to pretend they were someone they were not, in order to—

And that was why Calvin had stopped. *Heknew* now what had happened to his wife. Slowly, the last of his energy drained out of him, and he sank to his knees in the middle of the sidewalk, his head drooping as if it threatened to roll right off of his shoulders. Others noted his distress, and soon, a crowd had gathered around Calvin, asking if he was all right, offering to help him up. But Calvin couldn't hear them: His mind had closed down, his senses had turned themselves off, and he knelt there, blind, deaf and mute, not knowing or caring about anything.

After a period of minutes that seemed like days, he remembered his daughter.

Abruptly, he moved, startling the people around him. He started to stand, but had trouble in his weakened state, and a few bystanders helped him to his feet. Murmuring thanks, and shrugging away further offers to help, he started back towards his flat.

He finally arrived home, and almost before he could close the door, Erin was before him, falling into him and wrapping her arms around him. Neither of them had to speak... they both knew they had come to the same conclusion. They clung to each other silently for a few minutes, until Erin started crying outright, sobbing helplessly as Calvin held her to his chest.

At one point, when Erin collected enough strength to speak, she said, "Mommy doesn't love us anymore."

"Of course she does," Calvin told her soothingly, his own tears wetting his daughter's scalp. "It's just that there's something she needs more than us."

~

In many ways, Verdant was a triumph in social and city engineering. Great care had been taken to create a community where people could thrive, or at least, survive comfortably, and want for little. Many of the social reforms of the twenty-first century had seen to many of their needs: Citizens earned a minimum living stipend, or MLS, allowing them to live a comfortable but basic lifestyle, and giving them the option to work as desired for additional funds and purchasing power. The demands placed upon a closed ecosystem had dictated the rest, levying controls upon immigration and use of resources. This part was a

bit harder to control, which was why the population of Verdant (along with all of the satellites) was generally beyond the maximum recommended range of sustainability, and occasionally meant some supplies ran low, or out, depending on demand.

As a result, Verdant, unlike most major cities on the world, did not have squalid, seedy corners and ghettos, filled with homeless and destitute wanderers and ne'er-do-wells. What it did have, however, was an informal market in one out-of-the-way section of floor 25, where uncontrolled trade and barter were often carried out independently of the usual sales and marketing channels. It was a bit much to call it a "black market;" however, numerous transactions were carried out there that were, strictly speaking, illegal, or at the very least, in questionable taste. The prostitution trade had inevitably gravitated to the area, or perhaps was driven into the area by outside influences, as well as other sellers who had a reason to keep a low profile, and a sense of clandestine urgency generally pervaded the market at all times.

Maria Rios walked slowly through the market, browsing through the open-air markets and taking the time to examine many of the exotic fruits and vegetables she saw (much of which was not illegal), or the various knick-knacks in small home-made display cases (some designed to be quickly packed up and stowed in the presence of security). She blended in to the crowds well, dressed plainly as she was, and with only a medium-sized backpack that she carried slung over one arm. But although she looked at items, and occasionally even picked them up to examine them closely, she was paying attention to none of them. Her full attention, in fact, was devoted to listening to the conversations around her. She had been doing that since she arrived at the market, in the early morning after she had left the campground in that pathetic excuse for a park, and other than buying an apple for breakfast, had made a full circuit of the market already.

On her second circuit, about halfway through, she caught wind of a discussion in a nearby kiosk that interested her. Shifting slowly in that direction, she found a shelf on the outside of the kiosk with a few pots on it, allowing her to pretend to browse close enough to hear the conversation on the inside.

"...but it's been hopeless. Even with the networks set up to match prospectives, there just aren't any individuals left that want to go. I've even seen ads in the net with people offering tens, even hundreds of thousands of dollars, for a transit trade, and can't find one!"

"I'm so sorry. I can't believe there aren't more people here, I don't know, with relatives that they want to see, or something. There should be a way to allow those who want to, to stay on Verdant."

"I know... I just can't believe it when they say there are too many people here! Does this place seem crowded to you?"

"No, of course not... but then, I grew up in Montana. Have you tried the American compound? Maybe there's some diplomatic track they can take on your behalf."

"I've already tried that. They say there's nothing they can do, in fact, they all have to leave, too..."

Maria listened to the conversation patiently, at one point moving to a kiosk further away when she was sure she would learn nothing else from the two people, but keeping the kiosk in sight. Eventually, the conversation ended, and a moment later, the patron walked out of the kiosk. Maria watched her go, and after a few moments, followed her. She took careful note of the woman's size and features, concluding that they were similar enough to her own, and smiled to herself.

Maria waited until the woman was a good distance from the kiosk where she had had the conversation, and was now in an area that was a bit removed from the other stores. Then she increased her pace and



came up behind the woman.

“Excuse me,” Maria said, “did you drop this?”

The woman turned about and looked at Maria, then at her outstretched hand. In it, was an ident fob.

“Oh...” the woman immediately reached for her bag and rummaged around, then she pulled out her hand, and held up her own fob. “No, it wasn’t mine. See, mine is right here.”

“Oh, my mistake,” Maria said. Before the woman could turn and move on, Maria added, “I couldn’t help but overhear your conversation in the market back there. I understand that you would like to arrange a transit trade with a Verdant resident, in order to stay here?”

The woman looked at Maria, and looked about conspiratorially. “Are you trying to find one, too?”

“Actually, I may be able to help you. You see, I am a Verdant citizen, and I’ve decided to go back to Earth.”

The woman’s eyes immediately popped, and a smile crept across her face. “You have... you are? Do you want to—”

“Before we do anything else,” Maria stopped her, placing a hand gently on her arm and pulling her to a nearby wall, out of the way of passers-by. “I need to explain something to you. I am doing this against the wishes of my family. It is very important that they don’t realize I’m doing this. Therefore, if we switch these fobs, you must keep a very low profile, and avoid the authorities until the ship leaves. If you should get caught, you will have to leave, I will have to stay, and we will both get in serious trouble. Do you understand?”

The woman stared as Maria spoke. When she finished, the woman considered for a moment, then nodded. “Well, naturally, I don’t want to get caught. I can stay out of sight. Don’t worry.”

“I’m Maria Rios.”

The woman seemed to react to Maria’s name in confusion, or perhaps surprise—and for a moment, Maria panicked, afraid she had chosen the wrong person to attempt her switch—but in the next moment, the woman’s face smoothed over again, and Maria was sure she had put whatever concerns she had aside. “What is your name?” Maria asked.

“I’m Emily... Emily Stearns.”

Maria nodded then, and held out her hand with the ident fob. The woman held out her hand, and Maria placed her fob in Emily’s hand, then plucked Emily’s fob from her hand and clutched it in her own.

“Remember, *Maria Rios*,” Maria said carefully. “We’ll both be in trouble if you get caught.”

Emily nodded. “Thank you... *Emily Stearns*. Thank you so very much!”

“Have a nice day,” Maria said. And with that, she turned and wandered back into the market, and was soon lost in the crowd.

# 31: Ready

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There was a large crowd in the freighter bay in the morning when Julian, Reya and Aaron arrived from CnC. Many of the people were Verdant's bay workers, many of them off-duty, but they were outnumbered by other Verdant professionals, engineers, scientists, and curiosity-seekers, all hoping to catch a glimpse of the process that had catapulted them across a significant part of the solar system.

There were also a large number of security personnel, mostly guarding the entrances to the freighter *Makalu*, checking idents, and allowing only select people aboard. Many more people were trying to talk their way aboard, offering numerous and inventive excuses over why they should be permitted, why their exclusion from the permitted list was surely an oversight, why people would be regretful if they were denied entry. But the security officers ignored every excuse, and only allowed those on their lists to come aboard.

"What a zoo," Reya commented as they entered from the nearest lift... they were still a significant distance from the freighter. "I think we're going to have to restrict bay access for awhile, just to maintain order and safety."

"Agreed," Julian nodded. "See to it after the test-flight."

They worked their way through the crowd, most of whom parted agreeably when they saw the Ceo, Eo and Co approaching in a group. A few people applauded them as they passed, which struck Julian as particularly ironic, considering they had had absolutely nothing to do with the bold move that had likely saved their lives. (He assumed it would be an interesting day, the moment that news came out.) Others shouted questions about the ship, about Verdant, about the impending flight, about Earth, about the day they would all return... none of which were responded to by Julian and the others, beyond shrugs and "don't know"s.

Abruptly, Julian found himself confronting Walter Gordon, who seemed about to blow. "Ceo Lenz! Your security people won't let me aboard my own ship! I demand to see what's going on in there!"

"Sorry, Mister Walter," Julian said as evenly as possible. "At the moment, this project is classified, and we're limiting access to essential personnel only."

"This is outrageous!" Gordon railed. "Taking my ship without authorization or the owner's consent is a violation of the U.N. charter—"

"Except," Julian interrupted, "during an emergency in wartime, when due process is considered to be too slow to be effective. Sorry, Mister Gordon, but this situation applies."

"What emergency? No one's dying around here!" Gordon insisted. "You're just inventing this stuff in order to justify stealing my ship! I'm going to sue Verdant for every credit it has—"

"You're certainly welcome to do so," Reya jumped in. "As soon as you get home to file your complaint, of course." With that, she bodily herded him out of Julian's way so he could continue on.

Finally they reached the freighter's cargo bay entrance. The security officers stood aside for Julian and Aaron to pass, while Reya moved to speak to the ranking security officer on the deck before following them in. Julian and Aaron simply followed the crowds to the engine bays, and the newly-rechristened "Verdant drive."

They entered the bay containing the drive, immediately noticing a black-and-yellow painted strut that passed close to the entranceway and through the bulkhead, requiring them to step over it to enter. Most of the staff in the bay, including Dr. Silver, looked up at their arrival, and after checking a last reading on one of the workstations, Dr. Silver moved in their direction.

"So," Julian said when they were in earshot, "how's it going?"

"Very well," Dr. Silver said. She indicated a number of people crowded around one workstation, one of which was Valeria Epstein. "Our mathematicians are giving their equations one more once-over, and everything looks set for our test flight."

"Great," Aaron said. "When?"

In response, Dr. Silver looked back at the mathematicians, who all seemed to be nodding in satisfaction and smiling at each other. She turned back to Aaron and Julian. "I'd say right now."

"Excellent," Julian smiled. "Who's going to fly this thing?"

"Well," Silver replied, "the freighter can be conventionally flown by its regular pilot. Captain Grand has already talked to her, and she's apparently volunteered to take her out. Then our people will trigger the translation from here, out, and then back. Then the pilot brings us in conventionally."

"How far away were you thinking of getting from Verdant, to give you a safety margin?"

"I'm confident to say we won't need one upon leaving," Dr. Silver stated. She pointed to a sphere, roughly twice the diameter of a soccer ball and covered with electronics components, seated in a cradle at the rear of the bay. "We have the first test-bed with us, which we'll use as our advance probe. We simply push it out of an airlock and let it run a preprogrammed sequence. It will go out, take readings to confirm its location, and come back. We examine the readings to make sure we have the correct settings... and then we go ourselves. We'll add a few miles' cushion on the return trip, if you'd like."

"Please," Julian said. "Just to be on the prudent side."

"Well, if that's settled," Dr. Silver said, "why don't we get this thing going?"

Reya had just walked in when Dr. Silver had spoken those last words. "What? You're ready already?"

"Yes, they are," Julian said. "So let's get everyone cleared out of here, and get the ball rolling."

"Fantastic," Reya said, though her demeanor was somewhat less than excited. In fact, she still harbored ill-will towards Dr. Silver's device, and she wanted to make sure she was as far away from it as possible when it activated. Abruptly, she windmilled her arms to get everyone's attention. "All ashore that's going ashore!" Then she began herding people towards the exits, making sure there were no stragglers.

In her haste, she almost ran into Roy Grand, who had appeared from forward, and now approached

Julian, Aaron and Dr. Silver. “Sounds like you guys are ready?”

“We are,” Dr. Silver replied. “Is your pilot still willing to fly the freighter?”

“Are you kidding?” Roy grinned. “Haylee figures he’ll go down in history. I couldn’t keep her away!”

“That’s fine,” Julian said. “But I suggest you leave everyone else behind, except for essential personnel. This is a test-flight, after all. And for the record, if you have any reservations about being aboard—”

“No, sir,” Roy answered at once. “She’s my ship. Where *Makalu* goes, I go.”

“Very good,” Julian said. “Then let’s plan to get you into space in thirty minutes.”

“You got it, Ceo,” Roy said, and quickly turned on a heel and headed forward to the cockpit.

Once he was gone, Julian turned to Dr. Silver. “Doctor, I realize this is your project. But I’d feel better if you stayed behind, too, if your people can function without you standing over their shoulder.”

“Ceo,” Dr. Silver stated, “I assure you, this will be a safe and simple procedure.”

“Simple?” Julian repeated.

Dr. Silver smiled, conceding the point, and shrugged. “Either way, there’s absolutely no need to worry.”

“Then you won’t mind indulging your Ceo and staying behind,” Julian said, leaving no room to question his intent. “You can keep in touch with them by com, if you need to.”

Dr. Silver shook her head. “There’ll be no need: My people can do their jobs.” She turned and approached the teams at the workstations, explaining to them in turn what they needed to do. Satisfied, Julian left the engine bay and headed for the cargo locks, leaving Aaron behind to wait for Dr. Silver.

When Julian exited the freighter to the bay, he saw Reya directing the security teams, who had pushed the crowds back from the freighter and established a new cordon, along the far wall of the bay. They were apparently also keeping Walter Gordon at bay, ignoring his shouted demands to get access to the command staff or his ship. In another corner of the bay, a number of technical people had set up recording and communications equipment, to watch what was hopefully to be an historic occasion, rendered a bit more realistic to them by the fact that they would actually get to record the event from without this time, as opposed to riding blissfully unaware inside of it.

A few minutes later, Dr. Silver and Aaron exited the cargo lock, just as Roy Grand exited the crew lock and approached from the other direction. “We’re warming up,” Roy told Julian. “Be ready to go in twenty minutes.”

“Very good,” Julian said, motioning to a nearby dockmaster. “Issue a clear traffic notice. The *Makalu* takes off in twenty minutes.” The dockmaster nodded and moved off, working over his remote datapad. At the same time, Roy Grand went back into the *Makalu*, and after a moment, the crew and cargo bay doors began to close.

Julian stood by, watching the preparations being made for departure. In another moment, the access ramps would be closed off and retracted, leaving the freighter attached to the bay by moorings only. As he watched, Reya approached him.

“I can’t believe Dr. Rios didn’t want to come down to see this.”

Julian looked at her, surprised. “You hadn’t heard? Dr. Rios’ wife is missing. She went out the other day, and hasn’t been seen since.”

“You’re kidding,” Reya said. “Does he think she’s had another heart attack?”

Julian shook his head. “He didn’t act that way... I didn’t get details, but he seems to think something else is wrong with her. He’s just too upset right now... he didn’t seem even remotely interested in the tests.”

“I understand,” Reya said quietly. After a moment, she added, “I hope she’s okay.”

The general commotion in the bay helped the time to pass relatively quickly. In seemingly no time at all, the warning lights and buzzers began to go off, signaling the imminent departure of the freighter. Observation ports along the bay receiving wall revealed the *Makalu*, preparing for a departure that would look like any other. In another minute, the moorings were cast off. There was a perceptible bump from within the bay, a sign that the freighter had cast off, and through the observation ports, the *Makalu* could be seen drifting downward out of the bay area. Then a faint puff from her steering ports began to bring her about and rotate her away from Verdant.

Julian noted a nearby communications station where Dr. Silver was standing. Kris Fawkes was also there, the first that Julian had seen her since arriving at the bay. She hovered out of the way of the technicians, but close enough to get a good look at everything that was happening.

Julian, Reya and Aaron moved to the station, noting that it had trained Verdant’s outboard cameras on the *Makalu*. Kris caught Julian’s eye, and she smiled in anticipation. “I feel like I’m watching... I don’t know... the first Moon launch, I think. It’s so exciting!”

Julian smiled and nodded. Then he leaned close and said, “When we’re done here, come see me in my office. We have an assignment to discuss.”

“Of course,” Kris replied, her smile fading just a bit, but only out of curiosity.

Dr. Silver noted Julian’s appearance by her side, and for his benefit, said, “The engineering staff reports no problems with power or control related to the installed system. They’re asking for confirmation to proceed to the next step... station-keeping, and launching of the probe.”

“You have it,” Julian said.

Dr. Silver tapped the broadcast button on the com. “You are cleared for test stage one.”

The *Makalu* was just coming about to a position parallel to Verdant. On the cameras, they could see the curve of Mars beyond, and the black night above. After a few puffs of its jets, it came to a stop relative to Verdant.

As they watched, an airlock opened on the freighter’s spine, ahead of the bay. A moment later, they saw the small test-bed sphere, attached to a grappling arm, extending upward from the airlock. Once it had reached a position approximately twenty meters above the *Makalu*, the grappling arm let go and started retracting, leaving the sphere hovering in place above the freighter. When the arm had retracted fully, the

airlock closed.

“Preparing to launch the probe,” came one of the voices on the *Makalu*. “*In fifteen seconds from mark...mark.*” They watched as the sphere hovered there for a quarter of a minute. Then, with barely an indication that anything had happened at all... it simply wasn’t there.

Among the people watching through the bay ports, or at recording monitors, there was a collective gasp, followed by a subdued rush of voices, all speaking at once. Julian had to restrain himself from the same reaction, it was so hard for the senses to accept... like watching a well-executed magic trick, and having absolutely no idea how it was done. Reya did voice a reaction: “God, look at that.” And Aaron just stared, slack-jawed, at the screen.

After a few seconds, Julian asked Dr. Silver, “How long does it take the probe to come back?”

“As far as we can determine,” Dr. Silver replied, “it arrives at its destination, for all intents and purposes, instantaneously. Then it takes stellar readings designed to confirm its location, and compares them to the expected results of the translation equation. If they match, it will apply a corollary equation... designed to retrace the steps of the original equation, and bring it back here. It executes the corollary, and arrives back at its origin point—”

A gasp from the crowd interrupted Dr. Silver. She and Julian looked at the screen, to see the probe floating twenty meters above the *Makalu*.

“—right about now,” Dr. Silver finished smugly. There was a smattering of applause throughout the bay, as the airlock opened and the freighter’s grappling arm re-extended to retrieve the probe.

“Are we sure we’re set with ‘Verdant drive’?” Reya asked. “The way those things disappear and reappear, I think ‘Abra-cadabra drive’ would be more appropriate.” Julian just gave her a wry look. “Okay, what’s next?”

“The crew merely examines the probe’s data, to make sure it went where it was supposed to go. If it confirms, they repeat the process on themselves, with an additional test step thrown in for good measure,” Dr. Silver explained.

“And that is?”

“We’re having them deploy small probes around the freighter. They don’t actually do anything but take up preset positions around the ship, in a spherical pattern. We want to see which ones translate with the freighter, which ones stay behind, and if there are any odd effects at the boundaries.”

“Ah,” Julian said, “to establish the effect’s perimeter.”

“Exactly,” Dr. Silver nodded.

At that moment, the com came alive. “*We’ve reviewed the probe’s data, and it reads one hundred percent accurate. The probe executed a perfect translation one million miles perpendicular to the plane of the ecliptic, with no risks detected at arrival point. We are now prepared to duplicate the maneuver on the Makalu.*”

Julian nodded to Dr. Silver. “Go ahead,” she relayed to them.

“Deploying probes in ten seconds,” the *Makalu* stated.

As they watched the screens, they saw the same airlock open on the spine of the freighter. At once, a small cloud of devices, essentially just small engines and control systems, flowed out of the airlock and jetted about quickly. In seconds, the space around the freighter was filled with the probes, all stationed equidistant from each other and forming a sphere that radiated out to twice the length of the ship.

“Probes deployed. Executing translation in fifteen seconds from mark...mark.”

Again, everyone waited as the seconds ticked down. As the moment neared, the bay became more and more silent, almost as if the bay machinery itself was intentionally pausing until the moment was over.

And then—just as with the probe—the *Makalu*, the entire freighter, was gone, with no advance sign that it was about to depart, and no trace afterward that it was ever there. Instead of surprised gasps, the bay erupted in yelps of surprise and amazement. The probes within a specific radius had also disappeared, leaving a hollow region inside the remaining probes. A visual examination of the remaining probes made it obvious that the center of the radius was not the center of the sphere, but rather, it centered on the area of the ship where the quantum system had been installed.

After maintaining their position for a few moments, the remaining probes jetted away and assumed station away from their origin point, and from Verdant.

Dr. Silver immediately turned to Julian. “Now, for the record, don’t expect the crew to be able to check and confirm their location as fast as the probe did. However, if they take a limited stellar reading and accept a rudimentary comparison to the data on the probe, they can execute the return at any moment.” With that, she turned back to the screen to watch, as did everyone else.

This time, as Dr. Silver had expected, it did take longer than the few seconds between the disappearance and reappearance of the probe. It seemed as if no one in the bay was breathing while they waited. And then, with no warning, the *Makalu* and its probes appeared in the same location as it had been when it disappeared. The bay immediately erupted in cheers and applause, and as Julian noted, even Dr. Silver smiled approvingly at the screen.

“Signal the *Makalu*, Doctor!” Julian exulted. “Tell them: Welcome home, and please return to the bay immediately!” The roar of the crowd arose again, and Julian found himself standing amidst a sea of back-slapping and hand-shaking. He chanced a glance at Reya, and even she was smiling and shaking her head in disbelief and amazement. “All right,” he said. “If the *Makalu*’s data checks out, it’s time for the next phase: The return trip to Earth.”

## 32: Decisions

“You wanted to see me, sir.”

Julian looked up at Kris, and smiled. "Come in." Once she was inside, closing the door behind her, Julian motioned to a chair opposite his desk. "By the way," he said, "it's all right to call me Julian in official circles. You're on the team, now. What would you prefer we call you around CnC?"

"Kris is fine," she said, taking the chair. She noted the ease at which Julian seemed to have switched back to a businesslike mode with her, as opposed to the reactions of some men whom she'd bedded in the course of her job. Aaron, for instance, had never been the same since they'd slept together... it was as if she were a completely different person to him now. Most men were like that. Yet Julian's attitude or disposition towards her hadn't changed in public at all. She was willing to bet that, as yet, no one else had an inkling that they had spent a night together, not even Reya, who seemed to have a well-honed feminine sense for things like that. It was one more thing to appreciate about him, when added to all the other aspects that had drawn her to him in the first place.

But she hoped it did not reflect a wall having been thrown up between them so soon... possibly from Julian's role as Ceo reasserting itself, and drawing him back from the promises of intimacy... or from a reconsideration of her role, and doubts as to her intentions. Those kinds of things also happened after an intimate moment such as they had shared, and sometimes, it was all but impossible to tear that wall down after it had been erected. This meeting could be his way of trying to establish boundaries... or to separate them completely, if he felt that need. So she hung on his next words, wondering what was to come.

"Kris," Julian began, "as you probably are aware, Verdant has never had official ambassadors. As we have always been under direct U.N. jurisdiction, it was never considered a need for satellites to have ambassadors. However, in light of current events, I believe it is going to be in our best interests to establish ambassadors to Earth." Kris smiled despite herself, and Julian nodded in understanding. "I know how it sounds. Believe me, it sounds as strange to me. Makes it sound like we're from another galaxy or something. But I think it's clear that Verdant will have to stand up for itself in the future... we can't depend on the U.N. to protect us. That means we have to make some changes to the way we do things. I suspect that we are going to have to force a separation between us and the U.N., and petition for recognition as a sovereign country... of sorts."

"It is a unique situation we're in," Kris admitted carefully. "Not a traditional country, simply by virtue of not being on the ground. On the other hand, various island nations with far less land than we have, managed to maintain their sovereignty, even after sea level rise wiped a number of them off the face of the Earth."

"Hmm... that's interesting," Julian said. "I hadn't thought about that... but it might be a useful precedent for us to explore. But back to the matter at hand. Kris, I'd already established you as our liaison to the United States during this crisis. As of now, I want to promote you. I'd like you to be the first of our ambassadors to Earth."

Kris' mouth parted in surprise, and she smiled gratefully. "I'm flattered. 'The first'?"

"Right now," Julian explained, "I'm thinking we'll have a few ambassadors that will interact with many countries and corners of the globe... not 'an ambassador for every port', as some countries do. You would be the first in a team of such ambassadors. At this point, your primary duty would be to interface with the U.N., and the U.S., to help settle this crisis. After that, we'll work on building up the rest of the team."

"I understand," Kris said. She paused then, causing Julian to react.



“Is there a ‘but’ in there somewhere?”

Kris shook her head slightly. “No... not really.” She paused again, to consider her next words. “It’s just that... I’d like to make sure that I’m being offered this position based on what I can do for Verdant, and not just because of what we had the other night.”

“Of course,” Julian nodded, and stood up from his chair. “To be honest, I would have been surprised if you hadn’t mentioned it.” He came around the desk and leaned against it, close but not too close to Kris, and eyed the ceiling a moment as he searched for the right words. “Kris, I’ve already seen your dedication to Verdant, and your ability to do the job assigned to you. I firmly believe that you are eminently qualified to take on this assignment for us, based strictly upon your professional aptitude. Anyone who sees your resume, accompanied with your performance in CnC of the last few days, could not argue your worth.”

He then looked down at her. “That said... yes, I recognize the awkwardness of the situation this puts us in, after the other night. I want you to understand that my personal feelings are just that... *personal*. I don’t let them interfere with the work. And if you feel that the only way in which you can carry out this assignment is to make it clear that we shouldn’t fraternize beyond CnC, I fully understand, and will respect that.”

Kris saw the opening, and without a pause, took the plunge head-first. “I would only say that, if it seemed my proximity to you would affect the performance of either of our duties. Speaking for myself, I can honestly say that I think I can execute the duties of ambassador without the need for reclusing myself from you.”

“I’m glad to hear it,” Julian stated, smiling. “Because, on a personal note... whatever you decide to do... I would like very much to have a chance to spend more time with you, too.”

Kris immediately stood up and let Julian gather her into his arms, kissing him deeply and gratefully.

When they separated, Kris admitted, “I was afraid you were reconsidering... us.”

Julian nodded. “I’d be lying if I said I hadn’t thought about it. But then I blinked again, and it was gone.” Kris laughed, and he hugged her close. “There are no words to describe how I feel about you, and what you’ve done for me.”

“The feeling’s mutual,” Kris told him honestly. “You needed me as much as I needed you. And to make it official: Yes, I want the job. I want *both* jobs... to be your ambassador... and to be yours.”

“Then you can start immediately.” And they kissed again, to seal the deal.

~

The knock on the President’s office door was light, but expected. “Yes?” Lambert called out.

The door opened, and an intern poked his head in. “Miss Vaughn is here.”

Lambert nodded, and the intern’s head disappeared. A moment later, Shay Vaughn entered the office. Lambert had looked up to visually confirm that she was walking in, before directing his eyes back down at his workstation. A second later, he did a double-take and looked back up at her. Shay was wearing a tailored outfit that accented her every curve to the utmost, and she glided into the room in such a way as

to guarantee attention. Instead of looking pleased to see her on display, however, Lambert looked at her with veiled distaste. “Come to gloat? Giving me a taste of what I’ll be losing?”

Shay arched an eyebrow at him. “That would be cruel of me, wouldn’t it? And I admit I’ve done worse.” She came around the desk, pulled his chair about, and sat determinedly in his lap.

“But in this case, you’re wrong,” Shay told him. “I came here to tell you that, if you have to go back to the U.S., I want to come with you.”

Lambert blinked in surprise, and a healthy dose of doubt, but it was hard to ignore her offer. He eyed her closely before he said, “You said once that you didn’t want to leave Verdant for any—”

He didn’t finish the statement, because Shay bent down, placed her hands to either side of Lambert’s face, and kissed him. It was a kiss intended to promise the kind of paradise that no sane man could resist, with the owner of those lips. And Shay was very good at her job.

When they finally parted, Lambert said, “Do you mean it? You’d come back with me?”

“Yes, I will,” Shay nodded, and managed a smile that suggested she was sincere. “Mind you, I do want something out of the deal.”

“And that is?”

“Everything you have, of course,” she told him honestly. “I want to be with *you*, Gaston. And I firmly believe that, no matter how badly things might turn out for you politically, you will not only manage to land on your feet, but you’ll land on cashmere and silk. And I want to be right there with you. ‘Til death do us part.”

At last, Lambert smiled and nodded. “Oho... a shotgun wedding, eh? Well, I can think of no one I’d rather be wedded at gunpoint with.”

“I’m glad to hear it,” Shay said, and she leaned down and kissed him deeply. When she pulled back, she said, “I assume you received your boarding orders like the rest of the visitors.”

“I’m afraid so,” Lambert replied. “We leave tomorrow. The staff has most of our possessions packed up or locked up, and we’re to report to the freighter bay at noon.”

“Do you think you’ll have trouble finding space for me on board the flight?”

Lambert shrugged. “Oh, I’m sure there will be at least one member of the staff who’ll be willing to stay behind for their President,” he said wryly. “In fact,” he added a bit sourly, “I could probably hold a lottery.”

~

“Dammit, I only just got here!” Walter Gordon paced back and forth in the Verdant offices of RPI, amidst staffers packing boxes and shoving suitcases around. Gordon looked like he was about to haul off and slug the nearest staffer at any moment, which prompted most of them to avoid him as much as possible, and keep their heads down when they could not.

“They can’t make me leave!” Gordon had given up his under-the-breath personal monologues, and was

now venting to the entire staff. “I’ve kept this place stocked with supplies for twenty years!” This, to be sure, was an exaggeration, as Gordon had not owned RPI for more than nine years... but as RPI had been part of the supplies contractors for Verdant for almost two decades, Gordon felt justified in making the assertion. “How dare they dictate terms to me! *To me!*”

A staffer, attempting to put a box down and duck out of the room as soon as possible, stumbled in his haste, and almost dropped the box on Gordon’s foot. “*Look out, you clod!*” Gordon snapped, and took a swipe at the worker, but the worker avoided the blow and ducked back out of sight.

“*Dammit!* We should at least be able to bring our property with us, instead of leaving it to be pillaged by the locals!” Not that anyone really expected Verdant’s residents to “pillage” anything, but everyone else seemed to act as if leaving their property behind was tantamount to leaving raw meat behind for a pack of dogs, and Gordon has taken the same attitude.

“And as if we’re going to go anywhere! This is all a bunch of hocus-pocus*bullshit* !” This, despite the fact that everyone had seen the videos recorded from that morning, plainly showing the disappearance and reappearance of the *Makalu* , as advertised.

“It’s*bullshit* !” Gordon repeated with venom. “I’m going to sue the U.N. over this! I’ll bring this*entire satellite* down!” He kicked a nearby box and sent it skidding across the floor, causing more than one staffer to jump out of the way.

Meanwhile, Gordon fumed. “If I can’t stay here...*no one* will stay here.”

~

As evening fell over Verdant, Calvin sat in his living room watching news footage of the packing visitors throughout the satellite. Many of them were interviewed by reporters, and they complained bitterly about having to leave abruptly, having to leave businesses and colleagues behind, having to leave property behind.

Other reporters would then appear, describing the efforts taken by some visitors to hide themselves and avoid being sent home, only to be found by Verdant security and escorted to their place of temporary residence, or some other place where their whereabouts could be determined by noon tomorrow.

And throughout it all, Calvin watched, looking for, but repeatedly telling himself he was*not* looking for, a sign of his wife lurking about somewhere, waiting for her chance. He had turned down an opportunity to see the *Makalu* on its test-flight that morning. He’d refused to come into the studio to do additional voice-overs that afternoon. He wanted nothing to do with the flight... because he knew what would happen when it left.

And still, he tried to tell himself it didn’t matter.

“Just get me through tomorrow,” he told himself repeatedly. “Just get me through tomorrow.”

## 33: Leaving

# 18Aug2229

Despite a last-minute offer, a promise that early boarders would be given first opportunity to return to Verdant when the crisis was over, very few visitors had shown up before noon. But veiled suggestions that security would punish stragglers resulted in almost everyone bound for the flight to Earth showing up at the same time, just minutes before noon.

CnC had already radioed Earth to expect them, but had not given a specific time, and this was exactly why. The freighter bay was pandemonium as visitors lined up to be herded onto the freighter. A lot of luggage and packages were also brought, and workers and equipment borrowed from the passenger and delivery bays had to be brought in to catalog everything being loaded. Many people showed up with too much, far exceeding the mandatory cargo limits they had been given, causing more chaos as property had to be taken aside and marked to be returned to storage, and the owners screamed over the inconvenience.

Reya and Aaron had come to the bay in order to provide direct access to command orders, and to make sure no one tried to pull rank on the security staff. But by 12:30, even they were overwhelmed by the chaos. Reya threatened to go hoarse as she shouted commands back and forth through the bay, and Aaron looked ready to bolt in sheer terror at any moment.

In the freighter bay, a large entourage had just arrived. President Lambert and his staff marched in, many of them carrying suitcases, bags and satchels, or wheeling boxes strapped to hand-trucks. Security quickly organized a lane that gave them access to the Makalu's cargo entrance, and through shouted demands and plaintive cries directed at them, Lambert and his people made their way aboard.

Many people ironically protested the special treatment being given to Lambert and the presidential staff. Even as they were about to board, people were shouting out for someone to come and take their place. Incredible amounts of money were being offered as incentive to trade places with them, right then and there. In addition, many people who had managed to arrange a trade, but who had not brought proper documentation of the trade, clogged up the security teams trying to verify individuals and get everyone aboard.

As Lambert's people filed their way in, security scanned each ident to match it to a returnee. Enu Thompson had already passed through security, and was watching the rest of the staff who came through in order to make sure their luggage and cargo was properly handled. Abruptly, he noticed a woman he did not recognize, and who carried only a backpack and no other luggage, filing in with the rest of the staff. He started to step forward and inquire who she was, when the woman's ident was scanned, and an automated voice announced her as Colonel Emily Stearns.

Thompson smoothly stepped back, and allowed the woman to pass him and enter the freighter.

Roy Grand watched many of the passengers as they entered the ship and found seats. Almost before he realized it, he was suddenly confronted by Walter Gordon, his staff in tow.

Gordon's gaze bore into him, and he growled, "You're taking this act of piracy very calmly, aren't you, turncoat?"

Roy smiled. "And why not? Ceo Lenz has already paid me and my crew four times my usual salary for these runs." He put his hand on his hips. "Besides, what're you complaining about? He offered to buy the *Makalu* from you, outright, when this is over!"

“At what, a quarter of the cost? *Pah!*” He spat on the deck at Roy’s feet, and glared at him. “I won’t forget this, turncoat. You’ll never work for any supplies company again!”

“Uh-huh,” Roy sniffed. “Go find your seat, and try not to piss anyone else off.” And with that, he turned and walked away from his former boss.

~

In CnC, Julian and Kris watched the activity on the central workstation. An overhead camera was being broadcast on the column, giving them a bird’s eye view of the disorder. Julian looked on impassively, but Kris bit her lip in consternation as people were herded and ordered about, pushing and shoving, and punctuated by the occasional person being brought in by security, presumably because they had been avoiding arrival but got caught hiding somewhere.

“What a disaster,” Kris finally said aloud. Julian glanced at her, but said nothing. “You would have thought we could keep things better organized than this.”

“We could have,” Julian told her, “if those people actually wanted to go home.”

In a corner of the screen, Kris noticed a commotion. At first, she thought nothing of it, as there were many commotions going on at that moment. But in time, she realized that at the center of the commotion was a man, and unlike the others, he seemed to be fighting to get aboard the freighter! At one point, the man was jostled by another person in line, and when his face came about, it was caught on camera. Kris’ face frowned.

“Julian.” She pointed at the man on the column. “Isn’t that...?”

Julian looked carefully at the man, and in a moment, his mouth fell open. “Dr. Rios?”

~

“No, I’m not going!” Calvin insisted to the security girl at the entrance to the freighter. “I have to see the passengers! I have to verify—”

“What’s going on?” Calvin turned to see Reya Luis at his side, looking from him to the security girl. “Doctor, what are you doing here?”

“I’ve got to get aboard,” Calvin told her plaintively. “I need to... I need to see who’s leaving.”

“Are you looking for someone in particular?...” But even as Reya asked, she had a sick feeling inside that she already knew the answer. One look at Calvin’s face confirmed her suspicions.

Reya turned to the security girl, and said, “Let him on. And make sure he gets off!”

“Thank you,” Calvin was already saying, as he elbowed his way past and dashed onto the ship.

Calvin reached the bay, and skidded to a stop. The large hold had been converted to rows upon rows of seats, most of which were already filled with passengers. Many of them looked up at his rushed entrance, but said nothing to him. He looked at them in turn, then began scanning the entire bay, looking at faces in each seat, seeking only one.

I know she's here. It was so chaotic outside, it would have been easy for her to slip in through the security, who were probably only checking listed names against IDs, not bothering too closely about faces...

Calvin almost ran into a man carrying an RPI flight bag, who seemed to be acting as belligerently as he could get away with, without being sedated by the authorities. "*Watch it!* I don't need you pirates pushing me into a seat, I'll sit down when I'm good and ready!..." Calvin mumbled an apology, stumbled around the luggage that seemed to surround the man, and gave the man's staff a quick once-over before moving on.

As he moved through the bay, he came across the section set aside for President Lambert and his staff. Lambert himself, milling about and talking to various people, noticed Calvin as he stepped into the area. "Doctor Rios? Is there something we can do for you?"

"No... no," Calvin said. "Just... checking things..." Lambert went back to conversing with the others, and Calvin gave a quick glance through the section, not expecting to see anyone familiar among the President's staff, though all the way in the back, he saw a very dejected-looking Anton Lavary, looking much like he expected this was going to be his last flight on anything for quite some time—

And that was when a pair of eyes locked with his, in the back of the Presidential section. He did a double-take, and slowly turned in the direction of the woman in the back of the bay. And at that moment, the woman turned to him fully, her eyes wide, like an animal that knew it had been found in its hiding place.

Calvin could not move. He knew it would be... but he hadn't really wanted to believe it. He'd wanted *desperately* for it not to be so. But there was Maria, seated covertly in the back of the freighter bay, cowering before his gaze. *She was really going to leave me.* His eyes fixed hers, and his thoughts were clear to her: *How could you? What did I do to deserve this?*

Maria's eyes were equally expressive: *Nothing, Darling. I'm sorry, but I have to do this... for me.*

Calvin silently moved his lips to form a single word: *Erin?*

Maria shook her head. *No. Not even for her.*

To Calvin, the world seemed to recede... or himself, to shrink. Slowly, Maria lowered her eyes, then her head, and she herself seemed to shrink into the seat. And slowly, painfully, the bond between husband and wife snapped like a rotted string, and fell away like dust on the wind.

Eventually, Calvin started to back away, slowly, until he was clear of the bay and could no longer see his wife. Then he turned and trudged up the access ramp, past the last of the people boarding the freighter. He stepped past the security girl, not hearing her spoken question to him, and made his way through the bay.

"Doctor?" Reya Luis was by his side, before he realized it. "Did you find her?"

Calvin turned to Reya, his eyes sunken and moist. "My wife," he said deliberately, "was not on board."

And he continued on, out of the bay.

~

“Is this really such a good idea?” Hunter asked his superior officer. Next to him, Goldie was making the last adjustments to her flight suit, and listening intently.

“I know it sounds risky,” Commander Kean nodded soberly. “But I watched the test-flight myself, and I’ve taken the liberty to check the probes that went with the freighter on its test-flight. I am one hundred percent sure that the effect caused by their device will include anything within a set radius of the device. All you have to do is stay within its influence. If your Wasps tuck in to within thirty meters of the hull by the engine bay, you’ll be fine.”

“That’s a tuck, all right,” Goldie commented.

“I’ll say,” Hunter added. “We’ll practically be able to reach out and hang on by our hands.”

“If you think it’ll help,” Kean said sarcastically. “Look, if you two don’t think you can handle a simple escort assignment, I can—”

“Sure we can handle it!” Goldie said quickly.

“Who said we can’t?” Hunter piped up after her.

Kean eyed the both of them. “Fine. Then quit grousing and get to your ships!”

Kean turned on a heel and left, and Hunter and Goldie turned to head for their fighters. Once he knew they were out of earshot of their commander, Hunter commented, “Maybe we should just leave the ships here and ride shotgun on the hull...”

“Well,” Goldie said, “what’s the worst that can happen? They do their jump-thing, and we’re still here? Not that I want to see anyone get hurt, but why we have to escort non-citizens is beyond me.”

“But we are supposed to be bringing citizens back,” Hunter pointed out. “And supplies. That’s worth escorting.”

“True,” Goldie admitted.

“I’d feel better,” Hunter added, “if I knew how it worked.”

“Why? You’ve already gone through it once, and you didn’t feel a thing. But if it’ll make you feel better, I can request to Kean that you be enrolled in a quantum mechanics class.”

Hunter looked at Goldie sourly. “Pass.”

Goldie grinned back. “Wishful thinking.”

~

“Ceo Lenz? I have Eo Luis on the line.”

Julian proceeded over to the workstation and leaned over the viewscreen. Reya’s face looked back up to him.

“Jules: Believe it or not... and I’m still not sure I do myself... we’ve actually got everyone and everything loaded. Security’s done their pass-through, and cleared the *Makalu* for departure.”

“Good work,” Julian said. “Lock it up and clear the bay. We’ll take over from here.” He turned towards the workstation that had been providing long-range communications with Earth since their arrival over Mars. “Is there any last-minute change to our confirmation from Earth?”

The technician looked up. “No, sir. Earth has verified our arrival itinerary, and is just awaiting the time.”

Julian checked a wall clock, which was still set to Greenwich Mean Time: It was ten minutes after two in the afternoon. Then he turned back to the technician. “Send this: Expect our freighter at fourteen thirty GMT.”

“Yessir.”

Julian then moved to the flight control workstation, where a technician was connecting to the *Makalu* in anticipation of his order. “Captain Grand?”

“This is Grand,” came Roy’s voice.

“You have clearance for launch. Earth is expecting you in twenty minutes. Pass the word to Dr. Silver. And good luck.”

“Thank you. We’ll hit space in five. *Makalu, out.*”

“Verdant, out.” Julian indicated the board, and said, “Send word to the escorts to launch and await the *Makalu*. They will take their flight orders from Captain Grand.”

“Yes, sir.”

~

Reya watched as security did their last checks, and the final stragglers were shooed out of the bay prior to launch. The *Makalu* was already sealed up, and the access tubes retracted, but she didn’t want to see any last-second shenanigans around the freighter before launch. As she watched, she noticed a bay mechanic arguing with a security guard to be allowed to go back to work in an adjacent bay. Reya called out to them, “I don’t care who you work for, you’re on break for the next five minutes! Get lost!”

She was standing not far from the access tube to Aerospace Force One, which had been sealed by its flight officers prior to boarding the *Makalu*. With her back to the ship, she did not notice the face, standing back from within the doorway portal so as to remain in shadow, watching the proceedings outside.

~

“We’re at one hundred percent across the board, Cap.” The *Makalu*’s pilot, a fair-haired Irish girl who looked barely strong enough to operate its controls, poised her hands over the release locks and waited for the word.

Roy Grand gave the boards in front of his pilot, and those in front of his own consoles, one last look



before nodding. “Okay, Haylee, kick us loose.” Her hands danced across her board, and in a moment, they felt the slight bump of the moorings releasing... then the feeling of lessened gravity as they dropped out of the bay.

“We’re in space,” Haylee confirmed, and applied power to the engines to remove the minute spin they had inherited from Verdant. She let the ship drift along, making space between the freighter and the satellite. “Our escorts are here,” she commented presently. Roy saw them on his boards, too, and as they watched, the two Wasps took up positions on either side of them.

Roy activated the com. “Goldie, Hunter, we’ll be at station-keeping in five, and doing our jump in ten minutes after that. We’ll be launching our probe first. Copy?”

“We copy,” came Goldie’s voice. *“Proceed on your schedule.”*

The *Makalu* continued to drift leisurely away from Verdant. In the makeshift passenger sections, everyone was strapped into their seats while under microgravity, which had the effect on many of them of stifling their grumbles and complaints, and thereby slightly lowering the volume level in the bay. Now some individual conversations could just be made out over the typical noises of the freighter (which, after all, wasn’t soundproofed to the extent that a passenger craft was), and a few other urgent but hushed conversations were evident, such as the one being carried out between President Lambert and Enu Thompson at the front of their bay section. A few were afraid of the impending “jump” to Earth, despite the assurances of others that they had already been subjected to the “jump” once on Verdant, and the freighter had been tested. Others were simply upset about being uprooted from their work, their vacations, or their visits at such short notice. And some of them expressed dismay about having to return to Earth while Yellowstone was still spewing ash into the atmosphere... many people apparently believed Earth would be plunged into a lifeless millennia thanks to the caldera, and did not want to be forced to go back to an expected hell of a life on Earth.

In the rear of the bay, Maria Rios ignored all of the talk. All she could think about was setting foot on Earth again. She was positive there were good places still on Earth, and she would find them... no matter what it took.

Finally the *Makalu* reached its station, and an application of its retros brought it to a stop. The two Wasps brought up alongside the aft area of the freighter, edging close enough to almost touch the hull. At the same time, the spinal airlock opened, and the mechanical arm deployed the probe, as it had in the test-flight the day before.

“Patience, folks,” Roy Grand announced over the ship’s intercom. “It’ll just be another ten minutes to send the probe out, get it back, confirm our course... and then we go.”

Once the probe was placed at-station, and the arm retracted, it took only a minute before the probe disappeared from their screens. Two minutes later, the probe reappeared, and the arm extended out to retrieve it. After a few minutes had passed, the passengers in the bay saw one of Dr. Silver’s technicians float by them, in the direction of the bridge.

The technician reached the bridge, and Roy turned to see what was going on. “Is something wrong?”

“No, the probe was good,” the tech said. “Just wanted you to be aware, though, that its sensor check turned up multiple spacecraft in your target vicinity. A lot of fuss pulses bounced off of it. They’re expecting us, in spades.”

Roy nodded. "It's all right. No one's going to shoot down the President and other American citizens." He checked his watch. "Three minutes to scheduled departure. Let's do it."

Once the tech left, Roy got onto the com and passed the same information to Verdant.

"We concur," Julian Lenz replied. "*They will likely escort you down to a secure landing area, but not molest you. Don't be surprised if you're boarded before you hit atmo.*"

"We know," Roy replied. "We've got everything prepared back there."

"Then, have a good flight, Captain. Verdant out."

"Goldie, Hunter, you tucked in and ready?"

"We're ready."

Roy switched all of the com channels and intercom on. "Folks, we'll be doing our 'jump' to Earth in... forty seconds." Then he switched off the intercom, and after a few seconds, started a countdown. "In twenty... ten... five... *go*."

Before he'd spoken his last word, Goldie, Hunter, and everyone on the *Makalu* became aware of a high-pitched tone, coming from seemingly everywhere around them. It rose in frequency, until it was beyond everyone's hearing, but not quite beyond their ability to sense its presence. And then that sense, too, went away.

A moment later, the *Makalu* and the Wasps vanished from the orbit of Mars.

~

By the time Calvin made it back to his flat, he was sure the freighter had gone... he hadn't stuck around to watch it go.

He turned around after closing the door, and saw Erin before him. Her eyes were red-rimmed and puffy, as Calvin suspected his were as well. But her expression was blank, as if she had flushed all of her emotions out of her.

"I was listening on the news," Erin said dully. "I saw the freighter go. They figure it's already being escorted down to Earth by now."

Calvin nodded. "Probably."

Erin nodded. She stepped forward and hugged Calvin, who returned her hug with vigor. Presently, she said, "What are we gonna do without Mom?"

Calvin shrugged and shook his head. "Live, I guess."

# 34: Arrival

The instant the *Makalu* was in Earth orbit, Roy and Haylee became aware of the volume of com and sensor traffic that had been cut off when they left Earth's proximity, and which had now been restored. Like yanking your hands away from your ears, the ambient noise level on the bridge was significantly higher.

Haylee instantly reached to adjust her board. "That tech was right... I just had about twenty fuss hits at once!"

"They know we're here," Roy nodded, taking note of an insistent pinging from his board on the emergency frequency used by military craft to communicate to civilian craft. Roy activated the circuit, and said, "This is Captain Roy Grand of the *Makalu*, and escort, arrived from Verdant. You were expecting us," he added pointlessly.

"Attention, *Makalu*," came a clipped voice over the com. *"This is U.S. Aerospace Force Commander Hollen. You are to maintain present station and prepare to be boarded. Starboard escort craft, you are ordered to allow access to the starboard airlock. Confirm this order."*

"We will comply," Roy replied simply, and muted the com. "Haylee, just maintain station. I'll be at the airlock." With that, he unstrapped himself and drifted out of the bridge.

Roy passed through the makeshift passenger bay, and a number of passengers spoke up when they saw him. "Are we there?" "Did it work?" "When do we land?" "Did something go wrong?" "What's happening?"

Roy spoke as he drifted past: "Folks, we made it to Earth orbit. In a few minutes, we will be boarded, by American military. Everything's fine. Just relax, and I imagine we'll be hitting atmo in a little while."

Without responding to any other questions, Roy continued to drift aft. He passed the airlock corridor, and continued to the engine bay. There, he confronted the technicians coming out of the bay holding the quantum translation equipment.

"We're about to be boarded," Roy said. "Are you all ready back here?"

One of the technicians, a woman, turned to face him. "Just sealing everything up," Valeria Epstein said as another tech, the last one out of the bay, turned and closed the door behind him. The one at the door pulled a small device from his pocket, and tapped at its control panel. A coded set of beeps emanated from the box, and the technician threw a thumbs-up back to them.

"Okay," Roy said. "Relax back here while we entertain our guests. You know what to do." Then Roy pivoted around and drifted back towards the airlock corridor. When he was nearly there, he stopped and tapped a wall com to the bridge. "Where are they, Haylee?"

"A small transport, coming up on starboard," Haylee responded. *"Give 'em another minute, I think."*

In less than sixty seconds, Roy felt the telltale bump of a craft connecting with the *Makalu*. He waited, listening to the whirrs and ticks of motors and circuits being tripped. Then came a rather conventional knock on the airlock door. After checking a pressure panel to make sure there was a good seal, Roy

unlocked the airlock door and slid it open.

On the other side of the airlock was a young man with Commander's stripes on his shoulders. Behind him were three men in standard grunt uniforms, all well-armed. The young man in front eyed Roy and said, "Captain Grand?"

"I'm Grand," Roy admitted.

"I'm Commander Bob Hollen," the young man said. "It is my duty to inspect your ship before you are allowed to enter Earth orbit."

"I understand," Roy said, nodding and drifting backward. "Welcome aboard."

Hollen followed him into the freighter, and the grunts followed Hollen. They all came out into the makeshift passenger bay, and Hollen quickly surveyed the rows of people who stared back at them, rendered mute at the sight of their uniforms and sidearms. Hollen turned to Roy. "Show me to the President... he's supposed to be aboard."

"He is," Roy nodded, and drifted into the next section, followed by the officer and grunts. They entered the section, and Hollen immediately saw President Lambert, still strapped into his seat. The officer drifted over and smartly saluted from his drifting position.

"Commander Bob Hollen, sir. Are you all well?"

"Yes, we are," Lambert replied, giving a cursory glance around him at his staff, Enu, and Shay Vaughn. "Everyone has been treated well. We have no complaints."

"Very good, sir," Hollen replied. "I have been ordered to search this craft for weapons or explosives."

Lambert nodded. "Carry on, Commander."

Hollen saluted once more, then looked at Roy. "Take me to your engine bay."

"Ah," Roy nodded. "Expect we keep a lot of weapons in our engine bay?" Hollen glared back at him silently, and after a moment, Roy shrugged. "No problem. I think you'll get everything you need back there."

The group drifted aft, as the passengers stared silently from their seats, only daring to speak when the soldiers were past them, and only in hushed whispers. Roy brought them into the small bay that bordered the passenger spaces and the engine bays, where the officers were confronted with half a dozen people, plus two Verdant security men, standing outside of a closed door. Another half-dozen people, Roy's freighter crew, stood about near the open door to the engine bay. Hollen stopped in front of the group of people by the closed door, and used a quick motion of his hand to send one of his men down into the open door of the engine bay to their left.

Hollen indicated the closed door. "Open it."

Valeria Epstein drifted forward from the group of technicians. "Not so fast," she said bravely.

Hollen eyed her. "Are you Dr. Jacqueline Silver?"

“No, I’m Valeria Epstein.” Valeria’s voice had a hint of nervousness about it, but she gamely stood up to the Commander as she had been instructed. “Dr. Silver was very wisely ordered to stay on Verdant. The only people who made this trip are those who were taught to operate the machinery.” She pointed hesitantly at his sidearm. “This ship is considered sovereign Verdant territory. You are required to disarm and submit to a recorder search, if you want to get in there.”

“Is that so?” Hollen gestured for the soldiers to come forward.

“This bay is rigged to explode, destroying its contents, if the door is tampered with,” Valeria added quickly. The soldiers stopped moving forward. “Any one of us here can trigger it at will. And I imagine your bosses wouldn’t look too kindly on you destroying something they’d love to get a good look at... not to mention probably killing your President.”

Hollen glanced meaningfully at one of the grunts, who removed a small scanner from a leg pouch and approached the door. He used the scanner to study the perimeter of the door, and after a moment, he nodded to the Commander.

Valeria, sensing they had the upper hand, swelled a bit with newfound confidence and cocked an eyebrow at him. “If you want to verify there are no weapons in there, you disarm now. What’ll it be?”

Hollen considered his options. Finally, he removed his sidearm and handed it to one of his own grunts. Then he extended his arms and waited. One of the Verdant security officers came forward and searched him by hand, while the other directed a scanner at him. After an extensive search, one officer nodded to the other, who then turned to Valeria. “He’s clean.”

“Good,” Valeria said. “Open it up.”

“And tell your men to go search elsewhere,” Roy said amiably, hooking a thumb at the grunts.

“Search the rest of the ship,” Hollen ordered his men, as one of the techs unlocked and opened the door to the bay. Once the door to the bay was open, Valeria drifted inside, glancing nervously back at Hollen, who followed close behind. Roy came up behind them.

Inside, Hollen stared at the quantum translation equipment. Valeria watched him, and although he tried to maintain his air of command, it was clear to her that he had no idea what he was looking at.

“This,” Valeria told him, “is the machine that got us here. Get a good look.” Hollen eyed her suspiciously, but nonetheless he moved closer, examining the device as well as he was able without touching it. The explosive packs wired around the room were evident, and it was clear that, although the explosives were probably not enough to penetrate the hull, they would be enough to pulp whatever was in the room. And as for the machine itself, he could see no sign that it was in any way dangerous.

Valeria asked, “Convinced it’s not a weapon?”

“Not really,” Hollen said. “But I can’t prove it is, either. So we’re done in here.”

They left the bay, and a tech closed the door and locked it behind them. At that moment, the other soldier came out of the open engine bay and pronounced, “It’s clean.”

Hollen nodded and gestured forward. Then he turned and drifted back towards the bay containing the President, Roy not far behind him. When Hollen reached the President, he saluted and said, “Sir, do you

have any reason to believe this ship is rigged as a weapon, or poses any threat to American citizens if we allow it to land?”

“No, I do not,” Lambert said calmly.

“There is a bay to the rear, which these people maintain is classified drive technology.”

“Yes,” Lambert said. “We’ve seen it in action. It’s not a weapon, it’s for real.”

“Yes, sir. By your permission, I will aid in searching the rest of the freighter.” Lambert nodded, and Hollen saluted again and drifted off.

They waited for twenty minutes while Hollen and the grunts went through the freighter, scanning packages and crates, and poking into every nook and cranny they could find. Finally, Hollen drifted over to Roy and Valeria and stopped before them.

“Our ships will escort you to a designated landing field,” Hollen told him. “We will send you the flight plan before we de-orbit. Failure to adhere to the flight plan could result in your being shot down.”

“With the President and all these civilians aboard?” Roy pointed out. “Hell of a thing to do to the first American citizens to ever visit Mars.”

Hollen glanced at his men, and hooked a thumb over his shoulder, signaling his men to go. Then he turned back to Roy and held up his hand. In it was a small box, an industrial device used as a trigger to set off explosives. It took a moment before Roy recognized the device, and when he did, his eyes popped.

“We found this,” Hollen explained, “in your engine bay. Someone had placed it so that, if it went off, it would probably disable your engines. We’ve deactivated it, and will be taking it aboard our ship. Hope you don’t mind.”

Roy visibly blanched as he stared at the device. Valeria stared at both of the men as well as the device, and as the implications reached her, she began to turn pale as well. Finally Roy nodded and said, “Thanks, Commander.”

“Don’t mention it,” Hollen said, and turned to follow his men. “Wait for our signal,” he threw over his shoulder. Then he floated into the airlock himself. Roy followed him, to lock up the airlock behind him.

Once they were out of sight, Valeria visibly shrank upon herself, blinking rapidly, and quivered in nervous exhaustion. “I think I’m going to be sick,” she muttered.

~

The ash-filled air over Colorado roiled, as a phalanx of craft roared through it bound for Denver. Two Raptor fighters flew the lead, followed by the *Makalu* in close formation. The two Wasp fighters flew in the *Makalu*’s flanks, and those five ships were followed by six more Raptors. The freighter took its time through the ash, forcing the fighters to fly almost at their stalling velocity to avoid outrunning the larger ship.

As they approached the designated field, within the grounds of the Rocky Mountain Arsenal and not far south of the High House, a chance opening of cloud allowed a wide shaft of evening sun to illuminate the

field, and the ships. The *Makalu* followed the fighters to its prepared landing pad, and as it approached, the fighters arched off and headed for their own landing locations. The freighter eased down towards a pad near a large warehouse, Haylee having little trouble operating a ship that was normally capable of carrying hundreds of tons of cargo, and was getting little workout from a bay full of passengers and luggage. When they were over the landing site, Haylee put the ship down so lightly that the shock absorbers compressed, but did not bounce.

“Nice job,” Roy told her as she began to cycle down the engines. Then he triggered the intercom. “Folks, we’ve touched down in Denver. I imagine the local authorities have some procedures to go through, so just be patient and wait for their okay to disembark.”

In the bay, the passengers were already unbuckling their harnesses and collecting their things, then milling about and waiting for something to happen.

That something didn’t take long. Haylee said, “Hey, Cap,” and pointed to an external camera. They could see a number of soldiers tromping out to the freighter and stationing themselves within view of every airlock and bay opening, rifles un-slung. Once the freighter was effectively surrounded, a senior officer walked up to the craft, and using the butt of a pistol, knocked on the hull below the main airlock. Roy smiled slightly... then he hit a stud that activated the airlock’s boarding ramp. The ramp started out noisily, trundling right at the officer’s forehead, and he had to duck unceremoniously to avoid having his cap knocked off.

Then Roy said, “Okay, I guess this is it.” He ambled off to the airlock corridor, while Haylee continued with the shutdown procedures. Roy reached the airlock, unsealed it, and slid the door open. He was relieved to see none of the soldiers were actually training their rifles at him... but only just.

The officer whom he had almost brained with the ramp, stepped to the front of the ramp, and waited at its foot. Roy obligingly came down the ramp and stopped, standing by virtue of the ramp a head taller than the officer.

“I am General Adam Boule, or the United States Aerospace Force,” the officer said by way of introduction.

“Nice to meet you,” Roy said. “I’m Captain Roy Grand, attached to Verdant.” He extended a hand, which the General accepted.

“I understand the President is aboard,” Boule said. “Is he free to leave your ship?”

“Ofcourse he is,” Roy replied, as if the General had asked something purely asinine. “Every non-Verdant citizen on this ship is free to leave... that’s why we brought them. And who will I be speaking to about the cargo promised us?”

“It’s stored nearby,” the General replied. “After we get some other things settled, we’ll release it to you.”

“Then let’s get things started,” Roy said, waving a hand at his ship. “Feel free to go aboard and assist your President.”

“That won’t be necessary,” came a voice from the airlock door. Roy looked up to see Lambert there, and a few of his staffers waiting behind him.

The General saluted smartly. “Welcome home, Mister President,” he called up.

“Good to be back,” Lambert said, and didn’t even try to sound sincere. He stepped off of the freighter, followed close behind by Enu Thompson. Other staffers followed them, and Shay Vaughn followed closely behind the first group. General Boulle gestured, and from inside the warehouse, a small fleet of black vehicles rolled out. They stopped in front of the group, and a door opened before them. Lambert, Thompson, Shay and one staffer entered the first vehicle. The other staffers climbed into the other vehicles, handing their bags off to drivers that deposited them into open trunks, or the last vehicles in line. Within minutes, the vehicles pulled away, tracing a long black line northward, towards the High House.

Roy watched the line of limos drive away, before he turned back to see the first of the rest of the passengers stepping down from the airlock ramp. Soldiers closest to the ramp indicated that the passengers should enter the hangar nearby, and as there didn’t seem to be any place else to go, they filed in that direction as they were told.

The moment Walter Gordon touched the ground, he made a beeline for the first officer he could see, which was General Boulle. “General,” he shouted, leveling an arm at Roy beside the *Makalu*, “I want that man arrested, and that ship confiscated! That ship is my property, and that man is directly responsible for stealing it from me!”

The General regarded him for a moment. “You would be Walter Gordon of RPI?”

“That’s right,” Gordon snapped. “I own that ship! Grand and the leadership of Verdant—”

“Yes, we know, we received information about it, and you, from Verdant,” the General cut him off. “After examining the details, it is our opinion that the Verdant leadership made the best choice possible, under the circumstances.”

Gordon’s eyes slowly widened, until they threatened to pop out of their sockets. “What!” he screamed so sharply that his voice cracked. “Are you out of your minds? They stole that ship without my consent!”

“They also offered to compensate you for the ship,” General Boulle noted, giving Gordon an impatient look. “Considering without that ship, and their help, you might not have even made it home, I’d consider that a fair exchange, myself. And for the record, so does the United States government. Now, if you want to take it up with the U.N., feel free to—”

“Jesus Christ!” Gordon boomed loudly enough for his voice to echo down the tarmac and back. “You’re *all* a bunch of pirates! You’re condoning the stealing of private property! You’re violating my rights as an American citizen, taxpayer and corporate owner!”

“Not yet I’m not, but don’t tempt me,” Boulle snapped, gesturing to a soldier. When the soldier arrived and saluted, the General said, “Private, escort this man directly to room D-6.” His expression suggested that the soldier should subdue and carry him there, if necessary.

“Yessir!” the Private replied smartly, as Gordon said, “D-6? Where the hell is that? What’s going on?”

“We’ll talk about your situation later,” Boulle replied, as the soldier took Gordon by the arm and started marching. Gordon was led into the hangar, away from the other passengers, struggling against the soldier’s grip on his arm. They reached a small set of offices in the corner of the hangar, whereupon the soldier opened the door and forced Gordon inside. The moment the door closed, Gordon’s yelling and ranting could no longer be heard outside.



In the meantime, Boule had turned back to Roy. He cocked a sympathetic eyebrow. “That was your boss?”

Roy shrugged. “Fortunately, he didn’t spend much time around the docks.”

Boule nodded in understanding. “He may be spending even less in the future.”

Roy cocked his head in confusion. “Huh?”

Boule lowered his voice, to make sure the passing passengers would not overhear. “Commander Hollen com’d us about the explosive device found on your ship. Their scans indicated his fingerprints were found on the bulkhead surfaces around the device.”

Roy grimaced at the news. “I had a feeling,” he commented.

Boule nodded again. “Probably planned to set it off after he left, or at some point after you leave Earth, if he didn’t get his ship back. If convicted, he’ll be spending his retirement in prison for attempted assassination of the President of the United States. I’d say you changed bosses at an opportune time.” Then he resumed his normal voice and formal stance. “Captain Grand, you are not under arrest. However, we’d appreciate it if you could answer some of the questions we have about the events following Verdant’s leaving our orbit. Once that’s done, we’ll start arranging the cargo transfer.” He raised a hand towards the hangar. “If you please?”

Roy glanced back at the *Makalu*, and momentarily, decided it was in good hands. “All right. Let’s go, then.”

## 35: Questions

Lambert walked into the High House less than five minutes after climbing into the limo, followed by Thompson, Shay Vaughn, and the staffers. As most of them fanned out to return to their designated workstations, Lambert, Thompson and Shay headed straight for the President’s office.

Of all of them, Shay was the only one who stared about as if she had just been invited into a royal’s castle, or on a private tour of the Louvre. She was in the High House! Shay had, over the years, been in the company of rich, important and powerful people before, and was not unfamiliar with opulence, politics or exclusivity. But this was the home and office of the President of the United States of America! Even she could not help but be awed by her good fortune.

Her bubble was burst slightly, before they reached the President’s office, when Thompson turned to her and brought her up short. “The President will have to call for you later.” He snapped his fingers, and a nearby intern responded quickly. “Herb, here, will escort you to the President’s quarters.” Then he turned and followed Lambert, without another word.

Shay stared after Thompson, then looked over at the intern, just in time to catch his eyes roving over her figure with envy. Herb’s eyes snapped up when her head came around, and he quickly waved an arm in another direction. “This way, ma’am,” he said, abruptly bringing to Shay’s attention that he barely looked

old enough to shave. Then he was off down the corridor, leaving Shay no choice but to follow the boy.

When the door to the President's office opened, Lena Carruthers immediately stood up from the desk. She came around as Lambert strode in, Thompson close behind, and she extended her hand. "Welcome back, Gaston," she said, a faint touch of irony in her voice.

Lambert caught the inflection. "Did you enjoy running the shop while I was gone?"

"I most certainly did not," Lena replied, though she kept any real venom out of her voice. "Things are a mess around here. And what's the story with Verdant? Did you find out how they got you to Mars?"

"No," Lambert told her, stepping around to his desk, and sitting down. "They're keeping it close to the chest. But I'm hoping we can do something about that. Sit down, you two. We need to figure out how we're going to turn this to our advantage."

~

Roy Grand checked his watch, to confirm to himself that he had been sitting, alone, for the past ten minutes. He glanced around the room where he had been escorted and left, in the same hangar as the rest of the passengers, and Walter Gordon, wherever he was. It was little more than an interrogation room, complete with two-way mirror dominating one wall... although, he reflected, at least the chair was comfortable.

Without warning, the single door clicked open. Roy looked up to see General Boulle and another officer enter the room. When Boulle saw Roy, he indicated the other officer. "Captain Grand, this is Major Cates."

Major Cates extended his hand to Roy. "Sorry I'm late. Transportation is an iffy thing around here these days... even for us."

"I understand," Roy said, shaking his hand. As Cates and Boulle sat down on the other side of the table, Roy asked, "Has flying gotten any better since we left? Or is all of the atmosphere this bad still?"

"Most of it is pretty bad," Cates told him. "A few areas of the atmo have managed to stay relatively clear of ash, depending on the jet stream currents or other local conditions, but it's been two weeks. The ash has managed to circumvent the globe. Some cities haven't seen sunlight since the eruption."

"That is bad," Roy agreed. "I live in Madison."

"Wisconsin?" Cates shook his head. "Hope you don't mind taking a train home." He glanced at the General, then removed a handheld secretary from his jacket pocket. "Captain, we're trying to get as much information as we can regarding Verdant's disappearance, and we'd like to ask you some questions."

"Go ahead," Roy said.

Cates reviewed his secretary, taking out a stylus as he did so, then asked his first question. "Where were you when Verdant was about to leave Earth orbit?"

"First," Roy said, "let me say that I only *think* I know when Verdant left Earth. I was in the *Makalu*—my freighter—back in the engine bays, because one of my guys had reported some worn engine

components, and I was looking at those. I was worried that, if something happened, we might need to attempt to leave and de-orbit, which I didn't want to do, because we weren't fully fuelled at the time... but at the same time, we had offloaded our cargo, so we had an outside chance of pulling it off if we had to.

"Anyway, our engine bay is generally pretty loud. Some of my guys said they heard something in the bay they hadn't heard before, but I didn't hear it. We looked around to see if it was some new engine problem. When we came out later, everyone was running around saying Earth had changed. A lot of guys thought Yellowstone had erupted again, even worse than before, and Earth was being roasted or something. We all found out later we were looking at Mars. So sometime during my being on the *Makalu*, we made our jump."

"Were you aware of any problems in Verdant command during these events?"

"Problems?"

Cates consulted his secretary. "Had you heard comments or rumors about command conflicts, changes of command, fights, mutinies, anything like that?"

"No, not really," Roy replied. "I did hear someone say much later that CnC was surprised when we did the jump. But that was some mechanic in the bays, and I don't know who they are or what they might really know for sure, so I can't take that as gospel."

Cates made a note on his secretary. "Had Verdant's envelope or superstructure been compromised in any way? Had the satellite suffered any catastrophic damage?"

"Nothing that I know of," Roy replied. "But everyone knew there were fighters outside, if that's what you're referring to... and that the other satellites had been attacked."

Cates nodded. "Describe this 'jump' for us, Captain. Do you know how it works?"

"I don't have a clue," Roy stated honestly. "It's supposed to involve deeper physics than anything I got in school."

"Then how do you work it?"

"I don't," Roy replied. "Verdant's engineers run it from the bay where it's installed. The system is completely separate from a conventional drive system, and our guys have nothing to do with it. I just tell them when we're in position, then they tell me when it's over."

Cates and Boulle exchanged veiled glances, before Cates asked, "What happens when you jump? What does it feel like?"

"You hear a noise," Roy told them.

A few seconds ticked by. "A noise," General Boulle finally prompted.

"A high-pitched whistle," Roy went on. "The pitch gets higher and higher, until you can't hear it anymore. Next thing you know, you're somewhere else. You don't see or feel a thing."

Cates' and Boulle's glances were even less veiled this time. It was clear to them that they weren't getting

anything more out of Roy on the subject, so Cates consulted his secretary, and continued.

“All right: After the jump... again, any comments or rumors about command conflicts, changes of command, fights, mutinies, anything like that?”

“No.”

“So, as far as you know, this was all carried out by, or done with the approval of, Verdant’s command staff?”

“As far as I know, yes.”

“Do you know Doctor Jacqueline Silver?”

“I’ve met her,” Roy replied.

“Did she invent this jump drive?”

“They’re calling it the Verdant drive, just so you know,” Roy informed them casually. Cates noted that in his secretary. “I honestly don’t know who invented what. Dr. Silver is chief of the science department on Verdant, so she organized everything. I’d guess it was a team effort. But everyone seems to think she’s smart enough to have invented it all by herself.”

Cates nodded. “Does Dr. Silver strike you as a rational person?”

Roy looked at him with a puzzled expression. “You just asked me if she was smart enough to invent the Verdant drive!”

“I didn’t ask if she was *smart*,” Cates said. “I asked if you think she is a well-balanced person. Do you think she is capable of irresponsible, irrational acts?”

“Not that I know of.”

“Has she ever exhibited signs of paranoia, or spoke of feelings of persecution? Any hint of dementia?”

“I’ve only met the women recently, and I’ve hardly spoken to her,” Roy stated. “I’m the wrong person to ask.”

“Did you ever hear her speak negatively about the United States of America? Did she seem glad that America was having problems? Did she blame America for Verdant’s predicament?”

“Nothing I ever heard.”

“Did she ever voice a desire or preference for attacking the United States?”

“No.”

“Did you hear any of the Verdant command ever voice a desire or preference for attacking the United States?”

“No.”

“Did you ever hear Dr. Silver, or anyone within the Verdant command, discuss using the Verdant drive as a weapon?”

“Yeah, I thought that’s where you were going,” Roy commented, leaning back in his chair. “But *no*, I never heard anyone talk about using the drive as some kind of weapon. I mean... come on, guys! They’re not crazy! They want to come home, because they know they can’t stay in Mars orbit forever! Why would they do something to antagonize you guys back here? That’s why we brought the non-citizens back! It’s called a ‘show of good faith,’ you know?”

Cates considered Roy’s comment. “Captain, were you a regular attendee to Verdant CnC’s command meetings?”

“No.”

“Would you consider yourself a friend, lover or confidant of any of the CnC staff?”

Roy chuckled. “No.”

“Then,” Cates said, “you admit that you do not have any firsthand knowledge of the thoughts, plans or strategies discussed by the Verdant command?”

After a moment, Roy shook his head. “No. I’ve only discussed this one mission with Ceo Lenz. My job was to bring the citizens home, and take my cargo back. I can’t tell you anything else about CnC.”

Cates and Boulle exchanged glances again, and Cates nodded. “Captain Grand, do you consider yourself a patriot?”

Roy smiled then, a knowing smile that he shared with both men. “Major Cates, I consider myself a freighter Captain and a businessman. I fly for whoever pays me, I’ll carry any cargo that won’t get me in trouble, and I don’t care who I do it for. I was born in the United States, but as far as I’m concerned, I’m a citizen of the planet Earth, and an American only by a happenstance of birth.”

“Do you consider yourself an honorable man?”

“I’d like to think so.”

“So, in relation to the charges by one Walter Gordon that you cooperated with Verdant command’s stealing his freighter...?”

Roy allowed the left side of his mouth to pull back in a wry grin, and he chuckled again. “I believe Verdant was justified in commandeering the *Makalu*, given the circumstances. Also, Gordon was offered full payment for the ship in compensation, by Ceo Lenz, and he turned it down. The man has threatened me for going along with all this, so as far as I’m concerned, he doesn’t deserve my honor. The man’s a moron, his claims are crap, and I couldn’t care less what he says.”

After a pause, Cates nodded, tapped his secretary with his stylus, and pocketed the device. “That’s all I have, sir,” he said to General Boulle.

Boulle seemed none too satisfied with the result, but presently, he nodded, and stood up. “All right, Captain. Your cargo is waiting, so why don’t we go do some paperwork, and release the goods to

you?"

"Thank you," Roy said. "The arrangement with Verdant was also for a full refuel and servicing."

"Already being taken care of," Boule said. "Due to the caldera incident, we've initiated hull check procedures to make sure every ship that arrives is still skyworthy. Our crews are already checking the *Makalu*, and I understand their cursory checks haven't revealed any problems so far." Roy gave the General a significant look, to which the General responded, "They're only doing external checks. Internal servicing is up to your crew. We're also prepared to put your people up for the night, in quarters nearby."

"Not for me," Roy replied. "I'll be staying with the *Makalu*. I'll talk to the rest of my crew, and let you know who wants to take you up on your offer."

"I understand," General Boule said. "Shall we go?"

~

A line of busses drove through the main south gate of the Rocky Mountain Arsenal. Once through the gate, some of them headed directly for downtown Denver, bound for the train station or the center of town, while others veered off towards the interstates. They carried the passengers from the *Makalu*, cleared by the military and being given free transportation to wherever they desired to go.

One bus heading into town pulled over at a local bus stop, and the doors opened. Three people got off of the bus there, and headed in different directions... two of them, at least, seemed to know where they were going, and were intent on getting there.

The third person was Maria Rios.

She looked around the eastern side of Denver, wide-eyed in anticipation. It was already getting dark, but the ash-filled sky gave everything a reddish-pink hue that seemed to promise magical days ahead. She did not know where she was going, but she could not imagine it could be anything but wonderful.

Shouldering her backpack, she walked westerly, in the direction of the mountains barely visible beyond, her heart beating strongly and evenly with excitement. The first day of her real life would start now. *Now*. She could hardly wait.

~

When Roy returned to the *Makalu*, about an hour after he and the General had gone through the cargo paperwork, the first thing he saw was Goldie and Hunter outside the ship, keeping an eye on the various service personnel roaming over the exterior of the freighter. "Everything look okay out here?"

Hunter turned when he heard Roy's voice. "Well, everything looks kosher," he said. "But we aren't exactly freighter experts, you know?"

"I'll come back and give everything a check myself," Roy told them. "I'll be staying aboard tonight. The General's offered sleeping quarters for anyone who's interested."

"Our orders," Goldie stated, "are to stay with the *Makalu*. So we'll pass."

"I appreciate that," Roy said. "Catch you later, then," he said as he headed up the ramp and into the ship.

Inside, he found a number of people disassembling and removing the last of the makeshift seating that had been installed on the freighter. The bays that had formerly held the seats would be filled in the morning with needed supplies, going back to Verdant. Most of the people removing the seats had U.S. multiforms uniforms on... the rest wore one-piece service coveralls. Roy ambled towards the engine bays, and found most of Dr. Silver's staff, and his own crew, milling around back there. "What's going on?"

Valeria Epstein was the first to respond. "We're just keeping an eye on things around here... making sure no one tries to sneak in and get a peek."

"Well, all of you don't need to do that!" Roy pointed out. Then he looked to his own crew. "And what about you guys?"

One of his crewmen, a young man everyone called Spring, stepped forward. "We've gone over the ship, and haven't found any problems caused by the ash layers. Henti and Blake are still checking the engines, but Blake said everything'll be ready to go in the morning."

"Good," Roy said. "The General has set aside sleeping quarters for anyone who wants 'em, but I'm staying here, and I need a few people to stick around and keep watch with me. I want the rest of you to get a good night's sleep." He turned to Valeria. "Val, if you can spare just two of your people, to make sure someone can trigger the bay if it gets compromised?"

"Sure," Valeria said. "I'll stay, and..." She turned to the others, and after a moment, one of the techs raised his hand. "Okay, me and Lonnie."

"I'll stay," said Spring.

"Okay, fine," Roy said. "Everyone else, hit the dirt and go get some rest. Find Haylee and take her with you. Busy day tomorrow. Go, go," he urged them with friendly waves of his arms.

Slowly, the crowd filed out of the bay, headed for the crew airlock, and trundled down the ramp to the outside. The many soldiers, Hunter and Goldie, and the service crews crawling over the freighter, silently watched them depart and head for the hangar, a few of them asking for the whereabouts of their quarters.

~

Shay looked up when the door to the Presidential bedroom opened. She expected to see the intern she had asked to bring her something to drink. Instead, she immediately recognized Gaston Lambert, walking in with a tray balanced in his hands. On the tray rested a bottle, and two wine glasses.

"I hope this will do for a drink," he said lightly as she stood up to meet him. Shay met him halfway, took the tray from him, and placed it down on a nearby table. Then she wrapped her arms around his neck and kissed him deeply.

When she pulled back, she said, "Anything from you is perfect, Gaston." Then she stepped back, and reached for the glasses, as he reached for the bottle. She still had on the pants suit she had worn on the flight, but she had removed the jacket and opened the shirt almost to her navel, effectively exposing the

swell and cleavage of her breasts and smooth, taut abdomen. As Lambert worked off the cork, she said, "Are your meetings over for the day, then?"

"Yes, I think so," Lambert replied, a second before the cork popped off in his hand. He poured the sparkling liquid first in one glass, then the other. "There's nothing more I can do tonight."

Shay read the meaningful tone of his voice. "Is that a good thing?"

Lambert glanced at her. "We've set some things in motion. If we're very, very lucky..." he paused, long enough to accept the glass from Shay and take a sip from it "...we may find ourselves retiring to Verdant yet."

For a moment, Shay's mouth fell open in wonder. Then she smiled and, raising her glass, tapped it against his in salute.

~

It was very early in the morning... or late at night, depending on your point of view. For most of the crew of the *Makalu*, it was past the end of a long day, and most of them were gone, or asleep. Crews had been loading the *Makalu* well into the night, as well as refueling it for the trip back to Verdant. The refueling had been finished hours ago, during Hunter's shift, and the last of the cargo crews had left the ship over an hour ago. Roy Grand had personally checked each and every crate that had been brought aboard, before he'd awakened Spring and turned in himself for the next few hours.

At that particular moment, only Goldie Maina, Valeria Epstein and Spring were awake, with Hunter Reilly, Roy and Lonnie sleeping through their rest shifts. Blake and Henti, Roy's men who had been working on the engines in the aft bay, were both asleep in hammocks they had hanging in the engine room for just such an occasion. Only Goldie was outside the ship, and Valeria and Spring were lightly conversing about nothing in particular in the bay adjacent to the crew airlock.

Most of the service crews had left the *Makalu* hours ago, but a few of them had found some damaged sensor pods on the starboard forward side of the ship. They had been working to repair the damage all night, using parts from a spare pod that had been driven out from a nearby supplier. As the two men worked, using a small tractor to support the pod at its intended location on the hull, nine meters from the ground, Goldie walked about the ship, regularly stopping to watch them work. The two men largely ignored her, as they seemed to be having trouble with the replacement pod's wiring, which was apparently not identical with the original pod's wiring system. Goldie had asked them about it hours ago, and they explained that it was the process of figuring out which wires on the new pod corresponded to those on the old pod, that was adding hours to their work. Goldie had examined the pod, but had seen nothing that looked suspicious about it. So she had let them work.

Presently, Goldie became aware of a noise she hadn't heard before. She craned her head about, trying to localize the source of the noise, and after a moment, bent down and began crab-walking underneath the belly of the freighter. When she reached the port side, she looked up and saw a jet of grey steam emanating from a spot on the hull that didn't look like it should be emanating anything.

Quickly she crab-walked back to the other side of the freighter, where the airlock ramp was. As she started up the ramp, one of the workers on the pod called out, "Everything okay?"

"Keep working there," Goldie replied simply, and continued on into the freighter.



A few moments later, she came back out with Henti and Blake in tow, both grumbling about being awakened at such a godforsaken hour. They circled the ship until they were under the jet of escaping gas.

“Aw, shit,” Blake said, though he didn’t sound particularly upset, “it’s the port pod hydraulic line ruptured.”

“Yup,” Henti said, “lemme see if I can isolate it inside.” He dashed back around the ship.

Goldie looked at Blake. “What happens if he can’t isolate it from inside?”

“We’ll have to open up the hull to get at it,” Blake explained.

“Is that bad?”

“Not really,” Blake shook his head. “Just time consuming. Probably hold us up most of a day. Let’s see if Henti gets it from in there.”

They watched the escaping vapor for a few minutes, prompting Blake to take out his com and call out, “You having any luck, Henti?”

“Yeah, almost,” came Henti’s reply. *“I can see it, but it’s a long reach... hold on... oh, hey, yeah, just... right there.”*

Goldie and Blake exchanged glances. “Henti, what’re you doing?”

“Hold on, Spring’s here helping me. Wait... no, wait... *now, now, pull it back.*”

From outside, Goldie and Blake immediately noticed a lessening of the stream of vapor. As they watched, the jet became smaller, then smaller, then abruptly, stopped altogether.

“Yup. That got it,” Henti com’d out. *“We’re good.”*

“Great,” Blake said, and looked at Goldie. “Can I go back to sleep now?”

Goldie followed Blake back around to the starboard side of the ship, and watched as he trudged back up into the freighter. Crisis over, she slowly resumed her pacing around the ship, glancing up at the workers who were still installing the pod.

It had been almost a full ten minutes since she had laid eyes on them and their work.

## 36: Pre-flight

19Aug2229

Roy Grand was still asleep. He had left word to wake him at six A.M., but Spring had taken it upon himself to allow his Captain some extra shut-eye, and had intended to let him sleep until eight. However, a hand on his shoulder at seven brought him awake with a start.

“Uh!” Roy jerked upright, as if someone had punched him. Then he looked around bleary-eyed, and remembered where he was. He looked at Spring. “Everything okay?”

“You’ve got a com message,” Spring replied simply. “It’s Haylee.”

“Haylee?” Instead of asking questions, Roy pulled himself upright, rubbing out the stiffness in his body, and headed for the bridge. Along the way, he noted the time. “Why didn’t you wake me earlier?” Spring did not reply, and Roy, actually glad for the extra sleep, did not push the issue.

As he passed through the bays, threading around numerous crates and packages, he saw a number of people milling about around the remaining seats that had been left in the side bay. “Are all our passengers here?” Roy asked Spring.

“A few left, according to our manifest,” Spring said. “They’re supposed to be on their way.”

“Well, they better be here before I button up, or they’re waiting until Verdant gets back,” Roy stated as he stepped onto the bridge. At his command station, a red light was blinking over the com system, and Roy flipped the switch that opened the connection. “Haylee, it’s Roy.”

“Hi, boss,” Haylee’s voice replied. *“I’ve got a problem. I just talked to my parents in Portland.”*

“What’s wrong?”

“My dad was trying to shovel out from a layer of ash that was heavier than he expected, and he’s gone and jacked up his back again. He’s in the hospital, and Mom needs serious help fixing things up and cleaning out the ash all into everything—”

“Say no more,” Roy said at once. “If you need to go help your parents, go.”

*“Listen, you know I don’t want to leave you hanging without a pilot like this...”*

“Are you kidding? I know half a dozen pilots I could call that would jump at the chance to see Mars!” In fact, as he thought about it, one obvious candidate came to his mind immediately. “I’ll get a pilot. You go help your folks.”

“Thanks, boss. You’re the best!”

“Don’t sweat it,” Roy said. *“Makalu, out.”* He switched off the com, and considered the conversation, and his statement that he could find another pilot. “I hope,” he muttered to himself.

Then he put in a call to the first pilot he’d thought of.

~

Julian was alone in his office when Kris arrived, wearing for the first time the cream-colored shirt, green blazer and trousers of Verdant’s senior staff. Julian looked up, and smiled immediately. “The outfit suits

you. Not that I imagine even a burlap sack could look bad on you.”

“Flatterer,” Kris smiled back as she approached his desk. “I’ve been monitoring what communications we can get from Earth from here.”

“Yes, so have I,” he said, gesturing for her to come around to his side of the desk. On his workstation, he had notes and transcripts set up in organized files about the desktop. “It seems official channels have switched to new low-power signals that don’t carry out here. But I’m seeing a lot from unofficial channels.”

Kris moved to the desk and leaned over to look. Even after the last few days, she was good at maintaining a professional distance and demeanor during working hours, even when they were alone. Julian found himself approving of her professionalism even as much as he found himself more attracted to her each day.

“Yes, I saw much of the same things,” Kris nodded. “Of the people who even believe we left, most of them seem to believe we should open ourselves up to as many refugees as we can stuff in here.”

“And that America,” Julian added, “is within its rights to take us over if we refuse. Nothing I’ve seen of official comments seems to challenge the idea, which suggests tacit approval to me.”

“I agree. Have you heard from the *Makalu* yet today?”

“The last message came in early this morning,” Julian replied. “Roy said the Americans were being cooperative, the supplies were loaded, and everything seems to match the manifests. He expected the passengers who asked to return to Verdant with him in the morning, their time. He was going to do another check of the ship while he has the crew check the cargo again, before they leave.”

“Which is when?”

“They are scheduled to leave Earth at sixteen hundred GMT. Roy’s under orders to call us at fifteen hundred to confirm his status... less than an hour from now.”

“Mm.” Kris nodded, stepped back around the desk, and sat down in a facing chair. “We talked last night about the possibility of the U.S. doing something underhanded. What are your thoughts now?”

Julian considered. “Honestly? All this seems to be going too smoothly. Yes, I think they’re up to something. But I don’t know how to figure out what. We’re kind of at a disadvantage, here.”

“Kind of?” Kris repeated, and arched a playful eyebrow at him.

Julian smiled at his own understatement. “I mean, we have no way to accurately verify anything going on at the other end of this supply chain. We’re practically blind, dependent on what weak com signals we can intercept. Roy and his crew could have been co-opted or coerced... Silver’s staff could have been compromised, even with the precautions we took... the supplies could somehow be tainted or tampered with... or they could simply try to keep the *Makalu*, and somehow try to figure out how the Verdant drive works. And even if it gets destroyed before they can do that, it doesn’t help us get the supplies we need.”

Kris nodded. Clearly, she had been thinking along the same lines. “We need to consider the possibility that, when the *Makalu* gets here... we may not want to permit them to enter Verdant.”

“Are you suggesting stranding them once they get here?” Julian asked.

“Not necessarily,” Kris said. “Remember, they can always jump back to Earth. But they can also do that after they do something to damage us.”

Julian shook his head. “But why would they do that? They want us back! Everything we’ve intercepted tells us that they want us back!”

“I agree,” Kris said. “But the means they choose to...*encourage* us to come back... may be heavy-handed.” She looked at Julian meaningfully. “And they could easily get out of hand.”

After a pause, Julian said, “I see what you’re getting at. In case negotiations go awry.”

“Exactly.”

Julian reached for the com to CnC. “Reya, get Dr. Silver up here ASAP. And try to get ahold of Dr. Rios. We need to make some plans.”

~

At seven-thirty, President Lambert walked out of the residence wing of the High House. Enu Thompson stood waiting for him not far from the doors. “What’s our situation?” Lambert asked.

“As planned,” Thompson said. “The intel we got from Walter Gordon allowed us to get our package aboard the freighter last night. We have everything in-place, and Kline is ready to go. Any words of encouragement you want to pass on to him while he’s here?”

“No,” Lambert said. “Just tell him to bring that satellite back, and get him going.”

~

Just before eight, Roy was on the spine of the ship, examining the hull personally, when Spring stuck his head out of the spine airlock and called out, “Time, sir!”

Roy swiveled his head around to face his crewman. “Okay, I’m coming.” Then he turned back to the conduits he had been examining by hand a moment before. He gave one last pass with his hand over the seam, satisfied that it was well-sealed... he had to admit, the government service crew had done a great job cleaning up the *Makalu* after passing through the ash clouds. But he still wanted to make sure everything passed muster himself, before he took his ship back up there.

Finally, he stood up and returned to the spine airlock, climbed down into the freighter, and made his way to the bridge. Spring was waiting for him there, checking over the com equipment. Roy gave everything a look himself as he sat at his station.

“Is the transmit booster registering?” Roy asked as he examined the com settings.

“It’s at one hundred percent,” Spring told him. “Anytime you’re ready.”

Roy nodded, and opened the connection. “This is the *Makalu*, calling Verdant. *Makalu* calling Verdant. Time is fifteen-hundred GMT, and this is our status report. I’ve gone over the ship again, and everything

looks good for launch. We've had a personnel issue, though: Haylee, my pilot, has had to go to Portland to help her folks. I've put in a call for another pilot, who I'm waiting for right now. Don't worry, though, it's someone you know..."

Roy paused when he heard voices outside of the bridge, and a voice he recognized. He pointed at Spring and gestured at him to go and bring the newcomer to the bridge. As Spring got up and headed for the outer bay, Roy said into the com, "Yes, perfect, she just got here. So we should be able to leave on time at sixteen hundred." He looked up as the pilot entered the bridge, and he waved her over to his station. "Hold on, Verdant, the pilot would like to say hello."

Roy leaned back, allowing the pilot to come forward and approach the mike. "Hello, Daddy, it's Anise! Can't wait to see you soon!"

Anise leaned back, smiling at Roy, who grinned back at her. Into the com, he said, "We are proceeding as scheduled. We're still expecting a few last passengers to arrive soon, but I plan to button 'er up at fifteen-thirty, so they haven't got much time. If I haven't heard from you before the hour is out, I'll assume it's okay to take off. Will call again if something unexpected happens. *Makalu*, out."

Roy closed the connection, just as he heard more voices from the crew bay. He turned to Anise, who was already in the pilot's seat and getting herself organized. "So, we're leaving in an hour?" she asked.

"Unless we hear different," Roy replied. "Anxious to see Ceo Lenz, are we?"

Anise turned to him. "You don't know! I was a wreck when we all thought something horrible had happened to Verdant. Knowing Daddy's okay... well, I can't wait to see him again!"

"Well, it'll happen sooner than you'd believe," Roy grinned back at her. "So get comfortable, and I'll be back later."

Roy left the bridge and found Spring near the crew airlock, with two people standing before him. Spring looked up when Roy appeared, and nodded at the two people next to him. "Our last passengers, sir. This is Mattie Horn... and this is Dr. Emilio Vasqual."

"Good timing," Roy said, shaking both of their hands in turn. "We were going to lock up in another half-hour. Your seats are over there, and we plan to take off in an hour."

Mattie Horn nodded, and started towards the bay with the seating. Dr. Vasqual looked about anxiously, and addressed Spring. "My samples were supposed to be delivered already. Are they here yet?"

"Samples?" Roy asked.

Vasqual turned and looked at Roy, seemingly trying to decide whether he should bother to reply. To prompt him, Roy added, "I'm the Captain of this ship."

"Oh," Vasqual said. "Of course. Well, I have agricultural samples that I'm taking back to Verdant. We're hoping to use them to improve crop yields."

"Your cargo arrived a half-hour ago," Spring volunteered, and indicated their general location amidst the rest of the cargo. Apparently satisfied that they were aboard, Vasqual nodded. Then he leaned at Spring and asked, "What's going to happen to them? Everybody's talking about some weird drive you have, and there's talk of radiation. I don't want my samples damaged."

“There’s no radiation,” Roy told him reassuringly. “The drive won’t affect them at all. So just relax, and take your seats before we close up.”

He left Spring to deal with the passengers, and headed to the engine bays. All of Dr. Silver’s staff, and his remaining crewmembers, had been delivered from their overnight quarters. Valeria and the rest of Dr. Silver’s staff had taken the time to change out of the clothing they had worn to their overnight lodging, and into clothing that had been waiting for them on the *Makalu* ... a precaution against any bugs or other devices that might have been planted on their clothing while they were asleep. Roy planned to throw the clothing out, the moment they locked up.

As he approached, Valeria was directing the staff to get ready for translation, as she studied a workstation herself. She looked up as Roy approached. “Morning, Captain.”

“Morning,” Roy said. “Everyone ready to go?”

“Pretty much,” Valeria replied. “Everything checks out okay, so we’re just waiting to hit orbit to get the ball rolling.”

“Glad to hear it. The last of our passengers are here, so we’ll be closing up at fifteen-thirty GMT... about twenty minutes from now. Let me know if you need anything.”

“You bet,” Valeria said, smiling back.

Roy then went into the adjacent bay, where his engine crew were working. “How’s everything look?”

One of the crew, Blake, turned to him. “Everything looks one hundred,” he said. “We got all the kinks out of her last night, so we’re ready to hit orbit.”

“Okay,” Roy nodded. “We’re closing up in twenty, and taking off at the top of the hour.”

“We’ll be ready!”

Satisfied that everything was well in-hand on-board the ship, Roy descended the ramp from the crew airlock, and stepped out onto the tarmac. Not far from the ramp, Hunter and Goldie stood watching the general activity around the freighter, and the soldiers watching them in-turn. Goldie looked at Roy upon his approach, and asked, “What’s your status?”

“Everything looks good,” Roy told them. “The passengers are all here, the engines check out, Silver’s people are all ready, and our pilot is here.”

Goldie blinked noticeably. “Pilot? Where did our pilot go?”

Hunter turned to her, and said, “Happened while you were asleep. Haylee, the original pilot, went home to Oregon. Roy got Anise Lenz here for the return trip.”

Goldie looked in turn at Roy, then at Hunter. She finally addressed Hunter: “You saw her?”

“I admitted her,” Hunter replied. “It’s okay.”

Roy said to Goldie, “He said you all knew each other.”

Goldie nodded. “Just making sure it was someone we could verify.” Something occurred to her then. “Captain, you don’t know personally the people flying back with us, correct?”

“That’s right, I don’t,” Roy admitted.

Goldie thought a moment. “Do me a favor: Try to get pictures of your passengers, and send that to Verdant with their ids before we take off.”

“We’ve been checking their ids as they came aboard,” Roy stated. “They all checked.”

“Humor me, would you?” Goldie said. “Just to be on the safe side.”

Roy considered her request, and after a moment, he nodded. “Let’s see what I can do. We’re locking up in fifteen, and taking off at sixteen-hundred GMT. You guys ready?”

“We’ll be ready when you are,” Hunter said, nodding at the Wasps sitting fifty meters away on the tarmac.

Roy returned to the Makalu, found Spring, and motioned him over. He conversed with him privately for a moment, then made his way to the bridge.

On the bridge, Anise was deep into her pre-flight checks, examining the readings she was getting from the on-board systems, one-by-one. When Roy arrived, Anise said, “I heard Gordon is chewing nails over this situation. Is it true he refused to accept payment for the ship after Verdant commandeered it?”

“Sure is,” Roy replied, as he worked over his console. “He’s been the biggest ass you can imagine over all this. He even tried to sabotage the ship! Which reminds me: Are you going to tell him you did this run?”

“Only if I have to,” she replied. “I told Sergei, if anyone from RPI calls, to tell them I’m distraught, being hounded by the press, and not talking to anyone.”

“Good move,” Roy admitted. “You should still work after this. I, on the other hand, am likely to be branded a pirate in the industry. There’s no telling who I’ll be working for in a year.”

“I wouldn’t worry about it,” Anise told him. “You are already famous, worldwide, just by being associated with Verdant. I’m sure there’ll be plenty of offers when you’re done here.”

“You think?...” Roy’s interest in the conversation trailed off, as he watched one of the video screens on his station. On the screen, he could see Spring in the makeshift passenger bay, bringing new passenger Mattie Horn up to one of the wall coms. Although the sound was off, Spring appeared to be describing the com’s functions to her. As Roy watched the pantomime, he saw Spring ask for Horn’s ident fob, and he showed her how to use it to activate the com.

A moment later, the ident data on the fob displayed on the screen below Horn’s face. Roy smiled at the data, and made sure his station was recording the information. And already, Spring was thanking Horn for her cooperation, and then asking the next passenger up to the com to demonstrate how it worked.

Well, if nothing else, Roy mused, he might be suited for a job in espionage...

# 37: Return

“Attention. I have an anomaly.”

Everyone in CnC looked up upon hearing the voice of the GLIS. Then they looked to the group of Julian, Reya, Kris, Aaron and Dr. Silver at the central workstation. Reya said, “I’ll bet we’ve got one.”

As they watched, footage from the *Makalu* displayed on the main column in CnC. One of Roy Grand’s crew had brought a man within camera range, and a few moments later, the data from his ident fob displayed under his image.

Reya read the data. “Doctor Emilio Vasqual. Verdant citizen.” She consulted the travel data she had on Verdant citizens on Earth. “He was supposed to be in Chile, visiting family, and bringing back some agricultural samples related to his work.”

Julian examined the image in the column. “GLIS, give us a photo from Dr. Vasqual’s file.”

“That was good thinking of Lt. Maina to screen the passengers,” Reya commented. “Why didn’t we think of that?”

Kris shrugged. “You don’t think like a politician.”

“In that case,” Reya said, “I don’t feel so bad.”

At that moment, a haggard figure came through the double-doors into CnC. Everyone looked up as Calvin Rios entered the room... then they all reacted with concern as they took in his state. To put it plainly, he looked like hell. Calvin had a two-day growth of beard, and he looked like he hadn’t slept in longer than that. His eyes were sunken and haunted, and they flicked from person to person with sleep-deprived irritation.

“Thank you for joining us, Doctor,” Julian said at once, putting a gentle hand on his shoulder. He started to ask about his wife, whom he knew from Reya’s report had gone missing. But something in Calvin’s eyes, coupled with the urgency of the moment, told him this was not the time to ask. “We need your help with a problem.”

“What’s that?” Calvin asked in a raspy voice.

“Our freighter is coming back,” Julian said, steering Calvin to the main workstation and indicating the column. “But there’s an impostor aboard.”

“What!” Calvin seemed to draw himself up upon hearing the news. “Who is it?”

A moment later, a face appeared in the central column, next to the image sent from the *Makalu*. The man in the *Makalu* footage, and the image in the file, were of two different men.

“Bingo,” Reya nodded. “We have a ringer.”



Calvin looked at the two faces, and visibly deflated. “I don’t know him.”

“It’s supposed to be Doctor Emil Vasqual,” Julian pointed out. But this,” he indicated the other face, “is the man on the freighter.”

Reya looked at Julian. “We did get a confirmation from Dr. Vasqual that he intended to come back.”

“Or we thought we did,” Aaron stated. “It may have been faked. Or it may have been real, and someone intercepted Vasqual.”

“Not that that’s not important,” Kris said to them, “but right now we need to concentrate on why they put an impostor aboard the *Makalu* .”

“Sabotage,” Reya said immediately. “Of either the *Makalu* , or Verdant itself.”

“But how?” Aaron asked. “I find it hard to believe Captain Grand wouldn’t be able to detect a significant amount of weapons or other hazardous materials loaded into his cargo.”

“Possibly someone expects to take the freighter on a suicide run,” Dr. Silver suggested. “Look what an impact did to Tranquil.”

Kris glanced over to Julian, in time to see a pained look flash across his face. Between his late friend Evelyn Volov, and the information they’d recently received from the *Makalu* that Anise Lenz would be aboard the freighter, she imagined Julian was exerting an effort to keep himself calm.

In the meantime, Calvin had been staring at the faces. At the moment when it seemed as if he wasn’t even paying attention to them, he said, “A surgically-placed tactical weapon doesn’t need to be large to be effective.”

Everyone stared at him a moment, without speaking. “Then he could carrying or planning almost anything,” Reya finally stated. “What can we do about that?”

“Warn the *Makalu* ,” Calvin rasped. “They can arrest him, lock him up or something.”

“He could have some remote device concealed on him,” Dr. Silver said. “If it was not discovered on him in time, he could still manage to set off whatever he has in mind.”

“It would be best,” Kris said, “to alert the *Makalu* covertly. Warn them to watch Vasqual for signs of threatening or devious activity.”

“But how will they know what that is?” Aaron asked.

Kris looked at Aaron, about to comment... and it occurred to her at that moment that that may have been the first time Aaron had directed a question or comment directly to her since she had broken things off with him. It took her a moment to reorient her thinking to the task at hand. “Asking odd questions... concerns about his cargo... sudden bluster, demands for information, or sudden panic. All of those could be signs of a covert plan in action, or distraction from something else.”

Julian turned to Reya. “Can we put all of that into a coded message, and get it off to them before they do the translation?”

“In about fifty minutes’ time,” Aaron added.

“Yes,” Reya replied. “There’s time. But we’d better figure out what to tell them.”

“Then let’s get on it.”

~

The *Makalu* was only ten minutes from launch when it received a message from Verdant.

“What?” Roy said when he was told. By mutual agreement, Verdant wasn’t scheduled to communicate with them again, unless there was something wrong. After checking his watch, he said, “Put it on.”

Anise flipped the switch on her com, and the voice of Julian Lenz came through. “*Makalu, Verdant. Copying that we received your last message. Nice to hear your voice, too, Ani... I can’t wait to see you. That’s excellent news. We are standing by to receive you on schedule. Verdant out.*”

Anise reached to close the connection, but Roy’s outstretched hand on hers stopped her. Anise looked at Roy, who silently mouthed, “Wait.”

They watched the board, where the red transmission light was still burning. After another few seconds, it blinked once, then went out. Roy then closed the connection.

“What happened?” Anise asked Roy when he leaned back into his chair.

“Julian and I arranged a few coded phrases before we left,” Roy explained. “Just in case of emergency. He just alerted me that there’s an encrypted message in that last signal. Give me a minute.” Roy worked on his own board for a moment, then removed an earpiece from its storage slot and inserted it into his ear. He started to replay the message... then he looked at Anise, and pointed to the earpiece on her board. After resetting the board to tightcast to both earpieces, he started the deciphered message.

*“This is Reya Luis. Your passenger Doctor Emil Vasqual is an impostor. We suspect he has been inserted in order to sabotage you or Verdant, probably after your jump. Be on the lookout for erratic behavior, such as asking odd questions, concerns about his cargo, sudden bluster, demands for information, or sudden panic, that could indicate imminent action on his part. Try to re-examine any cargo he’s brought, but covertly. If he suspects you’re on to him, he might take action which could endanger the Makalu. Be careful. Verdant out.”*

Roy and Anise exchanged alarmed glances. Anise whispered, though no one else was within earshot, “What are we going to do?”

Roy checked his watch. “Act natural. We launch in seven minutes. Get ‘er ready. I’ll be back before then.”

Roy left his seat and started aft. When he reached the side bay holding his small number of passengers, he leaned in and called out, “We’re taking off in six minutes, folks. Make sure you’re strapped in tight.” He pointedly ran his eyes quickly over everyone in the group, including the man who had identified himself as Vasqual, but did not linger over anyone. Then he continued aft as casually as he could manage.

Once he reached the bays, he found Valeria amongst Dr. Silver’s staff and the Verdant drive. “Small problem,” he said in a low voice, so as not to alert the others. Valeria looked at him, taking note of his

expression, and moved to the corner, out of earshot of the technicians. “Dr. Vasqual is an impostor,” Roy explained. “Verdant thinks he’s a saboteur, and warns us to watch our asses.”

Valeria stared at him. “That’s it? Did they tell you anything else?”

Roy shook his head. “They don’t know what he’s going to do. And neither do we. We’re still launching, though.”

“Is that a good idea?”

“Don’t want to tip him off that something’s wrong,” Roy explained. “Just keep an eye on things back here, all right? If I can tell you anything else, I will.”

He stopped by the engineering bay as well, to warn his men to keep anyone, *absolutely anyone*, that wasn’t part of the crew out of the engine bays. Then he headed forward, still trying to maintain calm.

Valeria stood there a moment, considering the situation, aware that the only offensive weapon she had was the threat of blowing up the drive... and their chance of rejoining Verdant. And she knew she didn’t want to be stuck on Earth if—

Then something else occurred to her. Bringing her datapad up, she worked over it for a moment. Then she took on a devious smile. “Weld,” she called out to one of the other technicians, “help me with something.”

~

When Roy reached the bridge, Anise was busy checking her boards. “We have clearance for launch from the Arsenal,” she said, looking at Roy with veiled apprehension.

Roy nodded confidently at her. “We’re good, Anise. Stand by.” He switched on his com channel to the Wasps, also idling outside. “Hunter, Goldie, what’s your status?”

“*Ready when you are*, Makalu,” Goldie reported.

“Excellent,” Roy said.

There was a slight pause before Goldie replied, “*awaiting your signal, Captain.*”

~

“*You heard the man*,” Goldie com’d to Hunter. “*Heat ‘em up.*”

“Roger,” Hunter said, as he started his Wasp’s launch sequence. But only half of his attention was on the launch: The rest of it was on Roy’s use of the word “excellent,” which was a pre-arranged signal between them and Verdant that something wasn’t right. All the same, Roy intended to take off as planned, so he was covertly warning Hunter and Goldie to look for something unexpected.

~

Finally, it was sixteen-hundred. Anise glanced at Roy, who nodded confidently, though the look in his eyes suggested his mind was racing as he considered what might happen. Anise let him think, and slowly

brought the vertical thrusters up to launch power. Within seconds, the *Makalu* began to lift up, its landing legs extending under the lessened load, and then leaving the ground altogether. Fifty meters away, the two Wasps did the same, moving in unison and waiting to take up positions at either side of the freighter. Anise double-checked the pre-programmed orbital insertion angle one last time, before orienting the freighter into its flight corridor, and pushing the main thrust engines to full power. *Makalu* started off, slowly at first, but steadily gathering speed as it gained altitude. Within a minute, it had cleared the grounds of the Rocky Mountain Arsenal, and with its Wasp escort, was angling sharply into the sky.

~

“There it goes,” Enu Thompson stated, as he and President Lambert watched the freighter and escorts climbing into the sky from a High House window.

Lambert nodded absently. “Is this going to work?”

Thompson looked back at him. “Kline is good. He’s very good.”

“Maybe,” Lambert said. “But he’s up against the first humans to figure out how to get to Mars.”

Thompson simply nodded, and turned back to the screen. “It’ll work.”

~

“Approaching five hundred K,” Anise reported, with a trace of relief in her voice. The trip through the ash layer had been another rough one, and more than once Roy had glanced about his ship as if he might see any issues before they became problems. But they had had no emergency reports from the engines, no undue problems with the control systems, and no breaches in the hull, which was what counted. Everything else was only a minor annoyance, to be dealt with when they reached Verdant.

Which only left the matter of Emil Vasqual.

Roy had left on the camera that monitored the passenger bay, and had watched his charges as they ascended. Although a few of them had gone noticeably white from the rougher-than-usual flight (the *Makalu* was not, and would never be, a passenger liner), no one seemed to have any seriously adverse reactions to the flight so far. And Vasqual had been still and quiet since he sat down. Roy worried that whatever he intended to do could possibly—probably—be triggered from his seat, without any of the noticeable actions they had been warned to expect... but he couldn’t think of anything to do about that, without some reliable way of subduing him before he could react. No, he’d have to trust that, if Vasqual did not know he was already suspect, he would not do something overt enough to be recognized... hopefully before it was too late.

Outside the *Makalu*, Hunter and Goldie were slowly closing the distance between them and the freighter, as they entered open space, in preparation for the translation to Mars. Hunter had watched his monitors closely, searching for any sign of unexpected escorts, ballistics, odd com signals, or signs that something on the *Makalu* might have been experiencing unexpected faults or issues. So far, though, he had seen nothing.

But as he approached the starboard side of the freighter, his eyes were drawn to the outboard pods that always dotted a ship of this type. A few of them had suffered from the scouring they were subjected to by the ash clouds during their ascent. Some of them looked only pitted, but a few of them looked as if they may have either been seriously degraded, or failed entirely. And he was particularly drawn to one

pod that stood out even more than the rest, a sensor pod whose skin had suffered deep discoloration during the trip.

*"How's everything looking, partner?"* came Goldie's voice over the com.

"Excellent," Hunter stated. Then he switched his com to an encrypted frequency, and waited.

A moment later, Goldie's voice came over the new frequency. *"What's up?"*

"I'm looking at one of the pods over here," Hunter replied. "Didn't the Arsenal boys rebuild a pod on the starboard side?"

*"Yeah, a sensor pod,"* Goldie confirmed. *"That must be what you're looking at. What's it doing?"*

"Nothing," Hunter stated. "It's just that its skin coating is so discolored from the trip up that it sticks out like a sore thumb."

*"Did you scan it?"* Goldie asked.

"Doing that now," Hunter said. "Reads as normal."

*"Don't worry about it,"* Goldie said. *"They probably had to use a pod they had around for the rebuild. You'd expect them to have different skin coloration than the freighter, especially if it's a different alloy."*

"I suppose," Hunter said. But he continued to stare at the pod. There was something about the wear that wasn't sitting right with him.

*"They're sending the probe in five,"* Goldie com'd to him. *"Move into translation position."*

"Roger," Hunter replied. He edged his Wasp close to the hull of the *Makalu* ... then adjusted his position, moving it back a few meters, and down a few more. From that position, he could see the sensor pod above and in front of him, and he continued to watch it carefully.

He carefully considered the existence of the pod: What could it be there for? Was it an explosive? That was highly possible, and chillingly effective, as it would be almost impossible to disarm while it was outside the freighter. But what would trigger it? The Verdant drive's process didn't seem to leave any sign of its operation, and the Americans didn't know anything about how it worked... so he didn't think it would be triggered by the jump. Suppose someone inside the ship had been gotten to, and planned to manually trigger the bomb? But if they were aboard, the explosion would kill them, too. More likely, if someone on board was able to trigger it, it would be a last-resort... so possibly a ploy to blackmail Verdant into revealing the secrets of the drive, or just to force them to surrender and return home.

But the *Makalu* was just one ship. Even if the worst happened, and the ship was destroyed, Verdant would still be there. And whatever was in that pod, it couldn't be large enough to destroy the freighter and Verdant.

No: What the Americans wanted was Verdant back. So there was little point in threatening the freighter, when they needed a threat against the satellite. And you couldn't threaten the satellite from inside the freighter. So the pod was intended for an attack against Verdant.

And if it was going to attack Verdant... there was only one thing it could be.

~

"We're ready to send the probe," one of the technicians told Valeria. She and another technician, Weld, had been conversing over one of the workstations and they both looked up when Valeria was addressed.

"Okay," Valeria nodded, noting the time was sixteen-twenty-five. She picked up her datapad and handed it to Weld. "Done?"

"All done," Weld replied, and made a few final settings on the workstation. Then he nodded, heading off for another station.

Once he was gone, Valeria opened an intercom channel to the bridge. "Bridge, this is Valeria."

*"Go ahead, Valeria,"* Roy responded.

"We're sending out the probe," she said, glancing around the bay at the techs, working at their stations around the quantum system. Everyone who saw her look nodded back, including Weld, who was busy over a workstation in the corner. "Keep us on-station, and sit tight while we check our route."

*"Understood,"* Roy replied.

Valeria closed the connection and started the sequence that would deploy the probe. At the spine airlock, the door was opening, and the mechanical arm was moving upward, bearing the probe to its deployment position. It took about a minute for the arm to reach its position, release the probe, and retract the arm. Valeria watched the outboard camera trained on the probe, waiting for its signal to go.

Valeria visually confirmed her settings one last time, and sent the "go" signal. A second later, the probe was no longer there.

~

Julian looked at the clock on the wall. "A bit overdue," he commented indirectly. "Hope they're not having problems."

"Could the impostor have disabled the freighter?" Aaron asked. "Maybe they're unable to get back."

"Why would he do that?" Calvin croaked testily. His voice sounded so torn apart, Julian was almost sorry he'd asked him to come. "The Americans want Verdant back. If he's going to try something, he's not going to do it there... he's going to do it here."

"Yes, but—"

"Ceo, I have a signal!" One of the staffers exulted, her hands flying over her workstation. "It's the probe!"

"Location," Julian barked, heading toward the workstation.

"It's five miles off, bearing three-twenty," she said, examining the data that was coming in. "It's scanning its own location, now..." Abruptly, the staffer's smile faded, to be replaced by a look of confusion.

“May, what is it?” Reya asked from across the room.

“There’s another signal,” the staffer said.

“From the probe?”

“Yes, but... but I don’t...”

“Record it!” Dr. Silver said at once. Everyone looked at her. She, in turn, turned to Julian and said, “If they wanted to send us a quick message, what better way—”

“Then on the probe... of course!” Julian motioned for her, and Calvin, to join him at a com workstation. “Send it here!”

They converged on the workstation, where the staffer seated there was suddenly crowded by the senior staffers. “Um... I’m getting it. It’s in a standard encryption, hang on.” He tapped at his workstation, and a moment later, a brief message appeared on his screen:

*Probe returns in five. Then wait ten minutes.*

Following the message was a long series of numbers. Reya saw the numbers scrolling by, and winced. “Something went wrong. The rest of the message is garbled.”

But Dr. Silver smiled. “No it isn’t... is it, Dr. Rios?”

Everyone realized that Calvin was staring intently at the screen. For a moment, he didn’t respond, and Julian was about to prod him for a comment, when Calvin abruptly stabbed his finger at the screen. “A translation equation! Val’s sending us a new translation!”

“Are you sure?” Julian asked.

“Of course, I’m sure,” Calvin snapped. “I’ve only been working on them with her, haven’t I?” He gestured to a string, and said, “I recognize this sequence here, in fact. It’s...” but instead of finishing, his finger pulled back, and his voice trailed off.

In the meantime, Reya asked, “What does it mean? Do they want us to jump somewhere?”

“They must,” Kris said. “They must believe we will be at risk when they arrive.”

“Well,” Aaron suggested, “maybe we should jump now.”

“No,” Julian said, studying the message. “They told us when they will arrive. They want us to wait for them.”

“Is that wise?” Aaron asked. “They didn’t say what will happen.”

“We’re going to have to trust their judgment,” Julian stated. He turned to Calvin and Dr. Silver. “Doctors, you have less than fifteen minutes to program that jump into the drive.”

“We’re on our way,” Dr. Silver said, taking Calvin’s arm. “Come on, let’s go!” She half-dragged Calvin out of CnC, until he finally found his stride, and they ran together down the corridor, heading for the science floors. In their hurry, they almost ran into two security guards and others in the hallway.

One staffer they brushed past was apparently so intent on her task that she was knocked flailing into the wall outside of CnC, and almost toppled over. She caught herself against the wall with one hand, and seemed to take a moment to steady herself.

One of the jostled guards had seen the woman get blindsided by the scientists, and he straightened himself up and headed over to her. As he approached, the woman’s head lowered, as if she was having trouble catching her breath. “Are you okay, ma’am?” the guard asked, bending down so as to get a closer look at her, and make sure she was all right.

The guard was so intent on getting a look at the woman’s downturned face that he failed to notice that the Verdant staff jacket she wore seemed much too large for her. The jacket hung about her like a cloak, and the hand that was supporting her against the wall was almost lost in a too-long sleeve.

Abruptly the woman straightened up. Her other hand came up from behind her, where it had been attempting to pull the loose folds of the jacket back, and swung upward. The butt of the regulation sidearm in her hand connected with the officer’s jaw, and he fell like a sack of bricks.

“Gun!”

Col. Emily Stearns did not dwell over the felled security man. The other officer had called out his warning first, without hesitation, which frankly surprised her. And he was already moving for the wall panel that would close the security doors to CnC... but he had been knocked out of station by Dr. Silver and Dr. Rios, and found he had to take a few steps to get back to the panel. And as he was moving, he was forced to aim and fire his sidearm one-handed. He got off two rounds, but his shots went wide. Stearns braced herself against the wall, brought her sidearm up and fired twice, and the officer fell before he reached the panel.

Unexpectedly, however, the doors to CnC began to close on their own. Simultaneously, the voice of the GLIS boomed throughout CnC and the adjoining corridor: “Security alert! Take cover! Security Alert! Take cover!”

Stearns was taken aback by this, but only for a moment, before she started to move. She entered CnC at a run and just slipped through the closing doors, keeping her sidearm in her extended hands, and taking quick stock of the situation: Everyone had heard the officer’s shout, then the shots fired out in the corridor; staffers were yelling or screaming in alarm, and everyone was seeking cover.

She didn’t notice Reya Luis, who was rushing in a low crouch behind the workstations. Reya dashed at amazing speed between the workstation rows, angling for the closest of the workstations to Stearns, whereupon she turned, bolted out and came at Stearns laterally.

Stearns, oblivious to Reya’s presence, did see Ceo Julian Lenz, standing beyond the display column at the central workstation. He was the only one in the room who was still standing, seemingly too stunned to move.



She leveled her gun at Julian. “*Traitor!*” she screamed, and emptied the clip.

## 38: Emergency

When the probe returned, in exactly the position it had been in when it left, Valeria activated the arm to snag it and bring it back in. Then she activated the ship’s intercom, intentionally hitting the shipwide channel. “The probe is returned. We’ll check its data, and expect to jump in ten minutes.”

She closed the com, and waited as the probe began to sync its systems to the workstation and download its data. Valeria was instantly glad to see that the probe had, in fact, returned to Mars as intended, and its location was far enough from Verdant to make for a comfortable cushion between them.

However, she was less than happy to see that there was no message from Verdant. She’d hoped that programming the probe to stay on station for five minutes would be enough time for them to respond to the coded message she’d sent to them. Had they missed the message? Did they get the equation for the second translation that she’d sent to them? If not, they might be sitting ducks if Vasqual tried something after translation. Unfortunately, the lack of a return message left her completely in the dark. “Dammit...”

“What?” Valeria looked up, and Weld was at her side. “Did they get the message?”

“I don’t know... they didn’t respond!”

Weld’s eyes rotated through fear, concern, then calculation. “Well... if we resend it the second we get back—”

“They need time to program it in,” Valeria shook her head. “We don’t know how much time we’re going to have.”

Weld sighed heavily. “What do we do?”

Valeria considered their options. Finally, she said, “We jump to Mars in seven minutes. Get ready to load that second program in, the second we translate. If we have to, we’ll jump away from Verdant when we know something’s going to happen.”

Weld nodded gravely and walked off, leaving Valeria alone at the workstation. She could see no other logical alternative than to go to Mars, let the impostor tip his hand... and hope they could contain it long enough for Verdant to reach safety, or for the *Makalu* to remove itself, if need be. She could only pray that Verdant would be ready to do its part.

When the seven minutes were up, Valeria made sure everyone in the bay was ready at their stations. She spared a significant glance at Weld, who nodded back. Then she opened the com to the bridge. “Okay, Captain, we are jumping in twenty. In ten...” the now-familiar high-pitched tone could be heard running up the scale, then moving beyond audible hearing range, and finally beyond human ability to even sense it. “...five... now.”

On the bridge of the *Makalu*, Anise stared intently at her board, looking for a sign that anything was happening, when she became aware of a high-pitched tone, coming from seemingly everywhere around her. It rose in frequency, until it was beyond her hearing, but not quite beyond her ability to sense its presence. And then that sense, too, went away.

She turned to Roy. "What was that? Was that normal?"

Roy was smiling at her. "Check your board."

It took Anise a second to comprehend what he was telling her. Abruptly she turned back to her panels, and began checking the navigational settings. "What? No... *no* ... *noyeah* ." She activated an outboard camera, and brought it around until it sighted a red planet below them.

"*Holy shit*," she whispered. "That's *Mars*."

"Yes, it is," Roy beamed for a moment, before his face went serious again. "Now, look alive and watch our backs." He worked over his com board for a moment, then said, "Verdant, this is the *Makalu* . Verdant, *Makalu* . We have successfully jumped. What is your status?"

There was no immediate response from Verdant, prompting Roy and Anise to exchange glances. "*Makaluto* Verdant," Roy repeated, "we have executed our jump. What is your status?" While he spoke, Anise used her panel to locate and train an outboard camera on the satellite. Verdant appeared on the screen, rotating normally, navigation lights flashing... it seemed to be situation normal from outside.

There was a click from the com, and they heard a voice neither of them recognized: "*Stand by, Makalu. Do not approach Verdant. Repeat, stand by.*"

Before Roy and Anise could speak further, they heard a commotion out in the bays. In the next moment, the man calling himself Vasqual was shouldering and shoving members of Roy's crew, who tumbled away in the microgravity, and continued drifting forward until he gained the threshold of the bridge.

"Captain," the impostor stated, "I am declaring an emergency, and demanding to speak to Verdant CnC."

"You!" Roy unstrapped himself from his chair and floated in front of the man. "Declaring emergencies is supposed to be my job! And exactly what is your emergency?"

"There's a nuclear device on this ship," the man said calmly. "And if I don't speak to CnC, it's going to go off."

Roy eyed the man warily, taking note that he was not displaying any obvious triggering device that might be wrested from him... assuming he was telling the truth. "Who are you?" he demanded.

"My name is Kline," the man said. "I am a special agent for the American government. And I repeat, if you do not get me in touch with CnC, I am going to kill everyone on board this ship."

Roy did not want to seem too accepting of the situation, so he said: "We just tried to call them. They told us to stand by, and they don't seem too prepared to talk."

"They'll talk to me," Kline said at once. "Open the channel back up."

Roy hesitated, but as he did not think it would make any difference, he leaned back and opened the channel.

Kline immediately drifted forward and said, "This is Zachary Kline, special agent of the High House. I have a nuclear device on-board. I will set it off, killing everyone aboard, if CnC does not accede to my demands. Respond immediately! Repeat, Verdant, respond to me immediately!"

There was a significant period of silence on the com, prompting Roy to shrug at Kline. Before Kline could repeat his statement, however, there was an audible click from the com, and a new voice came on.

*"This is Kristine Fawkes on Verdant. Repeat, this is Kristine Fawkes. Is this the freighter?"*

This time, Roy and Kline exchanged confused glances. Kline leaned forward and snapped, "What's going on over there?"

*"CnC has been attacked,"* Kris replied over the com. *"The command staff has been killed by a terrorist. Most of CnC is damaged and inoperable. We are—"*the com signal corroded into static for a few moments, and Kris' voice was lost. When it returned, she was saying, *"—don't know how long it will take to establish order."*

Roy turned to Anise. Her eyes were wide and furious. She literally trembled in her chair, and Roy was immediately concerned if she should try to fly the ship. "Now, Anise, take a breath, relax—"

"Relax!" With a motion so fast as to be almost invisible, she popped the harness on her chair and floated towards Roy. *"Relax! They killed my father!"*

"Sit down!" Kline barked at her, leveling an arm at her chair. "Or a lot of other people will die!" He turned back to the com and said, "Verdant, listen up! Who's in command over there?"

After a moment, Kris' voice returned. *"I am."*

"All right, Kris Fawkes. You and I are going to return Verdant to Earth orbit, right now."

*"Well, of course we want to return!"* Kris replied. *"All we needed was some supplies to tide us over, until we can make the jump. But with CnC damaged, we don't have control! We're trying right now to—"*her voice was lost again in static.

Kline narrowed his eyes in concentration... clearly, this internal coup didn't figure into his plans. But he stared carefully at the image of Verdant on Roy's screen, and began shaking his head. "You don't look so damaged to me," he growled. Then, in a louder voice, he said, "Listen, Fawkes. You send someone on foot to the landing bay, if you have to, and clear us a slip. We are coming in. And if I see anything funny going on, I'm going to blow up this ship! Is that understood?"

*"Do not hurt the—"* Kris began, before being lost in static for a moment. *"—will comply."*

Kline nodded, and turned to Anise. "Take us to Verdant, right now. No funny stuff."

Anise glared at Kline for perhaps five seconds, before she said, "No funny stuff." She slowly turned and settled back into her seat. She buckled her harness back up, then began moving her hands over the controls.

Abruptly, the *Makalu* dropped in place, so quickly that Kline's head was struck on the descending bulkhead. "Ow!" Then the ship bucked to starboard, forcing Kline to float towards the waiting arms of Roy Grand.

Roy took a swing at Kline with a massive fist, but Kline had managed to duck it, and it glanced off of his shoulder. The blow did manage to spin him around, and Roy grabbed him from behind and pulled him into his body with a bear hug. He tried to get his hands into a position to pin Kline's arms, but Kline had already managed to free one arm, and he used it to wrap a hand around Roy's head. Holding it in place, Kline threw his head back, impacting Roy in the forehead.

Roy barked out in pain from the head-butt, and was shaken enough to lose his grip on Kline, who tried to push free. But before he got far, Anise appeared beside him and wrapped herself around him with all arms and legs. Her head happened to be close to Kline's shoulder, where Roy had hit it... so she bit down.

Kline roared, and tried to shake Anise off. But Roy had already recovered from his head blow, and was pushing himself back into the melee. He wrapped his burly arms around Kline from the other direction and hollered, "*Spring! Find me a mallet! Someone get the doc!—*"

"What the hell, Cap—!" Another set of hands, a crewman who had been nearby, entered the fray, and Kline roared again as he was borne under by his attackers. He saw more crewmen approaching, and knew he could not overcome so many. In a moment of desperation, he used his tongue to trigger the switch embedded in his molar.

~

Outside the *Makalu*, Goldie and Hunter waited anxiously for further orders. They had heard the com exchanges between Verdant and the impostor, Kline, on the freighter. Hunter kept his eye on the sensor pod, and his guns unlocked, though he was loathe to shoot at it. If it was a nuclear device, it would surely destroy the freighter, him, and his partner. But if that meant protecting Verdant, Hunter had already decided that he would be willing to do that—

Abruptly the *Makalu* dropped two meters, then bucked to starboard. The hull impacted with Hunter's Wasp, and he careened out of position.

"*Shit!*" Warning telltales went off over half of Hunter's board. He grabbed his controls, trying to pull the Wasp back into place, but the fighter was wobbling—the gyros and one maneuvering pod had been damaged by the collision. He worked quickly to shut the gyros down, so he could maneuver on jets alone—

A sudden flash of light caught his attention. The sensor pod had opened like the wings on a giant beetle, something he knew a standard sensor pod was not supposed to be able to do. At the same moment, Hunter saw a meter-long missile light up, and streak away from the *Makalu*.

"Verdant, incoming!" Hunter bellowed into his com. "Missile incoming, possibly nuclear!" He tried to bring the Wasp around, but the jostling had left him out of position, and the fighter was still not obeying his controls. He cursed loudly as his shots went wide. He saw tracers from the other side of the freighter—Goldie, snapping "*Get it, get it!*" on her com—but they were already too far away to score anything but a lucky shot. He stared at his board helplessly, still firing wildly, hoping for a miracle. "Impact *inten seconds or less*, Verdant! Take action or brace for—"

He didn't finish his sentence. Before his eyes, Verdant had vanished. The missile streaked through Verdant's last position, but encountered empty space, and continued on.

Hunter gave a rebel yell in triumph. He quickly cut it off as he saw the missile inscribe an arc through space. It was seeking a new target. "It's coming back!" he called out. As he watched, it circled through the space Verdant had occupied once, twice... then it swung their way.

"Incoming! Homing onus! —" Hunter cried, as he heard the now-familiar high-pitched whine building around them. "Come on, *come on*," he muttered, keeping his trigger down as he continued to hope for a lucky break...

The missile bore down upon its new target, the freighter and two fighters... and then they, too, were gone, and the missile flew through now-empty space again.

The missile, thwarted again by its elusive targets, circled about and searched, throwing out its sensor net as wide as possible. Finally it found a new target, and instantly angled off after it.

Twenty seconds later, the nearly two hundred year old Mars Reconnaissance Orbiter was finally decommissioned in a blaze of glory.

## 39: Big Jump

"Mister President, we have word." The intern had entered the President's office, and found Lambert at his desk, and Thompson seated nearby. "Observatories now say the flash was a sizable explosion over Mars. Explosion was apparently nuclear in origin, but further spectroscopic analyses have to be run to determine the exact nature of the explosion and debris. Since seeing the flash, there have been no further com signals coming from Verdant." The message ended, the intern turned and left the room.

Lambert bowed his head. "God-dammit, he blew it up. *Heblew it up*!" He glared at Thompson. "Kline wasn't supposed to *blow it up*!"

Thompson glared at the floor, his eyes furious, his face contorted in a scowl that threatened to leave permanent scars. He knew that spectroscopic analysis would eventually establish the origin of the nuclear device. By the end of the week—hell, by the end of the *day*—everyone would know that America nuked Verdant. The administration was through. *They* were through.

*He* was through.

Lambert seemed to have figured out the same thing. They were going to have to get, while the getting was good. "I'm going to the residence," he said, standing. Thompson stood with him and followed him out of the office, turning left as Lambert went right.

Thompson headed for his own nearby office and entered, closing the door behind him. He walked over to the desk, opened a bottom drawer, and removed a small silver-plated pistol. He pocketed it, and left his office. On his way out, he passed a guard, and stopped before him. "I'll be downstairs at the shooting range. I don't want to be disturbed."

“Yessir,” the guard said, as Enu Thompson started down the long corridor to the rear elevators.

~

When Lambert reached the residence, he threw open the doors. “Shay, we have to...” He stopped, when he saw the suitcases in the foyer, ready to be carried away. Shay was not in sight, and Lambert felt apprehensive for a moment, when he considered Shay might have left him already. “Shay?”

Rapid footsteps from the next room alerted Lambert, and he headed in that direction. Just as he reached the door to the next room, Shay appeared heading out of the room, and they almost collided. Shay stopped and avoided him just barely, a feat made more difficult by the large bag she had slung over her shoulder. The two of them stared at each other, until Shay broke the silence.

“Well, what are you waiting for? We all heard the news. Let’s get the hell out of here!” she snapped urgently, as she repositioned the heavy bag, and started past him. Abruptly, she stopped, and turned to him. “And I swear: Whatever hidey-hole you have waiting for us better be a damned *comfortable* hole... or I’ll probably kill you.”

With that, she turned on a heel and headed for the pile of suitcases. Lambert just turned slowly in her direction, and as he followed behind her, he muttered, “*Merde.*”

~

When the *Makalu* appeared, both Wasps in tow, they seemed to be alone. There was no Verdant in sight.

On board the freighter, however, no one had noticed. The ship’s medic had finally joined the melee outside of the bridge cockpit, and managed to sedate Kline while he was being held at bay. It had taken altogether four of the crew, including Anise wrapped around Kline like an angry python, to finally subdue the impostor, at which point he was taken to the med bay and strapped down on a bed.

When Anise and Roy finally returned to the bridge, they heard the calls from Goldie, in the Wasp outside. “*Goldie to Grand! Are you all okay? What’s going on in there?*”

Roy opened the connection, and said, “Yeah, we’re all fine now. We’ve subdued the impostor. He came to the bridge, and was threatening to blow up the ship, but Anise—”

“*No wonder the missile went off,*” Goldie cut in. “*That was a crazy thing to do!*”

“Missile? *Went off?*” Roy and Anise stared, open-mouthed, at each other. “When? He didn’t have a chance to—” And he remembered Verdant. “Oh, shit, did it hit Verdant?”

“*No, it didn’t hit anything,*” Goldie replied. “*Verdant jumped away, then so did we. We left the missile behind, lucky for us. I’ve located Verdant. It’s about twenty clicks from here, bearing one-forty-five by sixty-nine.*”

Anise returned to the pilot’s station and began resetting her navigational controls. “Where did you say they are?” She looked at her navigational readings, which had all gone blank. “God, where are we?”

“Oh, shit, the *terrorist*...” Roy immediately started fumbling with his com. “Verdant, this is *Makalu* ! Verdant, *Makalu* ! Are you receiving me? This is Captain Grand! What is your status? Are you okay? Is

anyone receiving me? Are—”

“Makalu, *Verdant*,” came a voice over their com. As soon as the voice spoke, Anise’s eyes widened, and she pivoted about in her seat. “Daddy!”

“Yes, it’s me,” Julian Lenz replied. “I’m fine. We’re all fine.”

Before Roy or Anise could reply, they heard another voice over the com, somewhere in the background: “Who’s ‘all fine?’ I got shot!”

“Was that Reya?” Anise asked. “Is she okay?”

Julian could be heard laughing. “You can still hear her complaining, can’t you?”

~

The moment the airlock doors opened on the *Makalu*, and the way was open to the bays, Anise Lenz bolted out of the freighter. Julian Lenz was waiting for her, along with Dr. Silver, Calvin, Aaron, and Kris. Anise made a beeline to her father and almost knocked him over when she dove into his arms.

“Oof!” Julian laughed when Anise fell into him and hugged him powerfully. “I’m glad to see you too, Ani!”

“So, you are okay,” Roy was calling out as he stepped off of the *Makalu*, following his pilot. “That’s great!” He turned back to the hatch and gave a thumbs-up to those inside, and within seconds, the first of the passengers started to disembark.

“Oh, Daddy!” Anise said when she pulled back to look at her father. “When they said you were dead... I was so... oh, Daddy!” She buried her head on Julian’s shoulder and squeezed him hard enough for air to escape his lungs.

“I’m so sorry about that,” Kris was saying to her, tentatively reaching out to comfort her, but self-consciously withdrawing her hand before she touched Julian’s daughter. “We realized that the attack gave us an excellent tool for a diversion. We thought it might have been coordinated with whatever was going on on the ship...”

“Which we’ll have to talk about,” Julian said. Despite the relative safety they had obtained by escaping the missile, it had been mutually decided to refrain from discussing the matter over the com, and had waited for the freighter to dock. “Why don’t we all go back aboard?”

They opened up the cargo bay entrance, giving those aboard more leeway to enter and exit, and they made their way back inside the ship. Roy took them to the med bay, where the impostor lay sleeping, strapped to the bed.

Julian examined him. “So this is Kline,” he said. “Are you sure he’s disarmed?”

“Hell, no,” Roy replied. “I’d suggest giving him a full cavity search before even waking him up! We don’t even know how he triggered that missile.”

“We were so busy fighting him,” Anise said, “we didn’t even know *about* the missile!”

“It’s just a good thing we were listening in from the bay, so we had time to jump away ourselves when it swung back on us,” Valeria commented from the periphery of the group. “And I’m glad you got our message, Jacqueline. When the probe came back without a return message, we really weren’t sure.”

“We just didn’t get a chance to respond,” Julian explained. “Right after we received your message, we were under attack. By the time we got everything sorted out, we realized the probe had already gone.”

“Who was it?” Anise asked. “Who attacked you?”

“Reya identified the woman as Col. Emily Stearns,” Julian replied. “She was the pilot of Aerospace Force One, back there.” He hooked a thumb down the bay. “She must have hidden herself away when everyone was leaving. A lot of people were trading idents to make, or avoid, that flight. She probably convinced someone to take her place, so someone as prominent as herself would not be missed and searched for.”

Behind them, Calvin’s head lowered slightly, and his eyes fell to the floor. Everyone was focused on Julian’s story, however, so no one took notice of his reaction.

“She managed to get a staff jacket from somewhere,” Julian continued, “and snuck up to CnC. She might have had a better shot at us, but Dr. Silver and Dr. Rios literally ran into her in the hallway, and she had to go through the guards to get to CnC. We heard the guard’s warning, then the shots fired, then the GLIS’ warning, so when she came around the corner and squeezed through the doors, we were already taking cover.”

“With two notable exceptions,” Aaron pointed out, placing a hand on Julian’s shoulder. “Your old man stood there while everyone else scrambled, to draw fire.”

“Daddy!” Anise cried in horror, but Aaron threw his hands out to calm her.

“He knew what he was doing! He was standing on the other side of the display column... Sterns had to shoot through it to hit him. The thing is, the column distorts your vision through it at that angle, so much so that she was aiming at a blank wall!”

“And by the time she figured out she wasn’t hitting me,” Julian finished, “Reya snuck up around her and tackled her.”

“Did she really get shot?”

“In the hand,” Julian nodded. “Took the last bullet just as she hit Stearns. It managed to miss the bones, amazingly enough, though. She’ll be fine.”

“But she’ll have something new to complain about,” Aaron commented good-naturedly.

“Anyway, CnC got pretty shot up, and the column at the main station is smashed,” Julian explained. “When you com’d, and then Kline came on, we assumed the two events were timed somehow. Kris came up with the idea of pretending the attack had succeeded, hoping it would buy us all time to deal with your impostor. And by that time, Doctors Silver and Rios had input your translation equation, and were waiting for the signal to go.”

“And when we heard the Wasp pilot shout ‘incoming’,” Dr. Silver shrugged, “we figured that was as good a time as any.”



“My ears are burning.”

Everyone turned around to see Hunter and Goldie entering the freighter through the cargo entrance, Hunter in the lead. Julian immediately turned about and extended a hand to them. “Good job, pilots! Your quick thinking saved all of our asses!”

Hunter started to reply, but Goldie cut him off. “Glad to be of service, sir! But if I may: Where are we now?”

“Yes,” Anise said, turning back to Julian. “My nav board couldn’t make heads or tails of our position. If we really jumped, or whatever... where’d we go?”

Everyone turned to Dr. Silver, who in turn glanced at Valeria. Valeria’s eyes widened for a moment when she realized everyone was waiting for an answer from her, and she visibly gulped.

“Well,” she started nervously, “the equations came from my datapad. You see, when we were working on the original translation equations, we’d chosen different locations to translate to. In one of the tests, we had been looking at old space exploration data, and we came across references to some star systems that had been scanned in the twenty-first century, and estimations made of which ones may have held Earth-like planets, or similar elements to our solar system...”

As she had been explaining it, Anise’s eyes widened in amazement. She finally turned to Roy and said, “You were *serious*?”

“As a heart attack,” Roy said.

Anise turned back to Valeria. “Are you saying we’re in another *solar system*?”

Valeria grinned sheepishly. “Mmm... yeah.”

“Specifically,” Dr. Silver stated, “Fomalhaut. In the constellation of Piscis Austrinus. About twenty-five light years from Earth.” The group’s reaction to this news was mostly wide-eyed goggling at each other, and heads shaking in confusion or amazement.

“But why here?” Anise finally asked.

“In the early two-thousands,” Calvin immediately spoke up, though noticeably without the trademark inflection and animation that he was otherwise known for, “scientists identified gas giants and a thick shroud of dust around Fomalhaut. The predominant theory of the time was that a solar system needed a gas giant planet at a far orbit, in order to create solid planets closer in... just like our solar system was created.” He paused to clear his throat. His voice was still raspy and strained, and as he spoke, Valeria moved closer to him in concern and laid a sympathetic hand on his arm. He noted her concern with a look of appreciation, before he continued. “The theory was revised later, to suggest that while inner solid planets might not actually form, there would be a strong possibility of compound-rich asteroid belts at least, especially early in the system’s development... and Fomalhaut is a relatively young system. Either way, it would be a likely source of the same elements and raw materials common to the solar system.”

“Which turned out to be a perfect choice,” Dr. Silver explained, “because if we don’t go back to Earth soon, the one thing we’re going to need is raw materials.”

“What?” Anise stared. “Not go back? How can we not go back?”

“I’m not sure we can risk going back,” Julian told her. “We were attacked... twice... in order to take us over, stuff us with refugees, and destroy the sustainability of Verdant. It would have been a slow death sentence for everyone here. At least, for right now,” Julian went on, looking to everyone for understanding, “we can’t go back.”

“So,” Anise asked slowly, “what are we going to do?”

A strange light came into Calvin’s eye. “We’re going to live.”

~

They walked carefully through CnC, mindful of the shattered bits of the display column and other workstation surfaces crunching beneath their feet. The first thing Julian said upon returning to CnC was: “Reya, why aren’t you in the hospital?”

Reya Luis sat at a chair facing one of the working workstations in the room. Beside her was a doctor that was busily examining her hand again. He had taken the first bandages off, which were now piled on the floor, and he held up the puffy, bruised appendage to get a good look in the light.

When Reya heard Julian’s question, she nodded at the doctor. “Look: They make house calls.”

“Reya,” Julian warned.

“Well, you weren’t here,” Reya quickly defended herself, as Anise rushed over to comfort her friend. “And I don’t care how shot up this place is, one of us needed to be here! Just in case... I don’t know... an alien mothership came out of hyperspace, or whatever, and wanted to drop antimatter bombs on us. Oh... and something else.”

“Yes?” Julian prompted.

“Remember when Stearns showed up and the GLIS closed the doors to CnC?” Reya asked, and Julian nodded. They stared at each other for a moment, and Reya paused to see if he would comment further. When he didn’t, she said, “You know it’s not programmed to do that on its own.”

“It occurred to me,” Julian admitted. Everyone nearby was silent for a moment, and a few eyes drifted to the ceilings, where the cameras of the GLIS stared back down at them.

“But that’s a mystery for later,” Julian finally said, “and I’m here now. So I’m ordering you to go to the hospital. *Now.*”

“Yes, Dad,” Reya said, and slowly moved to her feet. The moment she was standing, she swayed dangerously, and the doctor on one side and Anise on the other grabbed her quickly before she fainted. When Reya recovered, she looked at Julian and Dr. Silver and said, “I’m pretty sure that was just me... right?”

“It was just you,” Julian said tenderly. “Ani, please help the doctor take her to the hospital.”

“Sure, Daddy,” Anise replied, and the two of them led her away through CnC.

“Reya?”

Julian’s voice stopped the procession, and Reya turned back to Julian. Julian smiled, and said, “Good work, Eo.”

Upon that proclamation, those in CnC that did not have their hands full began clapping, followed by those who could free up their hands to join in. Reya, taken by surprise by the response, smiled awkwardly back to those in CnC.

Then she spun about and said to Anise and the doctor, “Okay, get me out of here before I tear up.” And she was quietly led out of the wreckage of the room.

And the room was a wreck. Miraculously, other than Reya, no one had been hit by a single bullet, and flying shrapnel had only caused a few minor cuts. But CnC had indeed suffered from the attack, Col. Stearns having shot up the central workstation, and several other workstations, beyond repair. The GLIS was still functioning, albeit at a confused level due to its inability to get a reading on their position, but it had lost its vocal mode, and technicians were still working to restore it.

“Where’s Stearns now?” Roy asked. “I would’ve spaced her if she’d done this on my ship.”

“She’s locked up,” Julian said. “You should’ve seen the beating Reya put on her with her good hand and her knees and elbows.”

They eventually left CnC and crowded into the conference room down the hall, either taking seats or leaning on the table or walls. Julian sat at the head of the table.

“I meant what I said,” he stated, “when I said we can’t go home. At least, not now... it’s simply not safe. We need to figure out what we are going to do.”

“Maybe it’s not too late to go back,” Aaron said. “There must be a way to work something out with Earth.”

“I think the actions of the United States were pretty clear,” Valeria countered. “They attacked us, they sent someone to kill our Ceo, and they sent someone to pose as one of us and threaten the entire satellite.” She shook her head. “I know I don’t like the idea of going back.”

“So, what do we do?” Roy asked. “Doesn’t Verdant need supplies to maintain its atmosphere, the food, the plants... everything?”

“Yes, most everything,” Julian said. “We can stretch our resources as best we can, for now, and ration and recycle other things we used to trade with Earth, as best we can. In the meantime, I think we’re going to have to take advantage of our situation. We’re going to have to become explorers.”

“Exactly,” Dr. Silver stated. “We’ve translated to a solar system that may well have most, if not all, of the raw materials we need to survive. The least we can do is to see what is at our disposal... then try to figure out where else we can look for more resources. We need to see what we can find to stretch our resources to their utmost.”

“We have ships,” Julian said. “One of them has a Verdant drive already installed on it.”

“And we can build more drives,” Dr. Silver said. “If we manufacture more probes first—certainly an

easier task—they can be sent out as advance exploration drones. We can then equip a few ships to allow manned missions, for further exploration. Then we can send ships like the *Makalu* to collect materials... or send Verdant itself, if it's easier." She smiled and nodded at Julian. "We can do this!"

"So," Roy stated, "we're just supposed to wander around the galaxy... looking for supplies?"

"Well, who knows?" Dr. Silver added. "There's always an outside chance that we can identify an Earth-like planet out there somewhere. But we have an added advantage that no other humans have ever had: *We can actually get there*. Imagine the possibilities!"

Julian nodded sagely. "Just imagine." Julian regarded Calvin for a moment. "Dr. Rios, I know this has been especially hard on you. You have all of our sympathy. Take all the time you need to get yourself together. When you're ready, I'd like you to work with us on creating some public service recordings about our new life out here. We're going to need to prepare people for a very different lifestyle than they've been used to. Harder... leaner... but not impossible."

Calvin had listened with guarded eyes to Julian's instructions. Finally, he nodded and looked away. Valeria, who had sat next to him, took his hand in hers and squeezed. The signal was clear to all who saw it: Calvin Rios, at least, would not suffer his loss alone.

Julian then turned to Aaron. "Aaron, we're going to have to work out new resource conservation schedules, and come up with a strategy for... for space exploration," he said proudly.

Then he looked at Kris. "At the same time, let's try to figure out a way to eventually get us home. At the very least, I imagine there are a few people on Verdant who would rather stick it out on Earth than fly around the galaxy with us. At the very least, there are two American citizens I'd really like to get rid of," he added wryly.

Kris nodded. "Maybe we can work out some way to sneak people back to Earth, and get the remainder of our people off. We'll have to be careful: If we're at risk going back, it's certain that we don't want one of the Verdant drives to fall into the hands of hostile forces. We don't want them coming after us before we're ready."

"Agreed," Julian said, "so anything we work out will have to be an underground effort. We need to protect ourselves."

"Earth may eventually figure out how to come after us," Dr. Silver pointed out. "Now that they know it's possible, the scientists of Earth will make a serious effort to figure it out. Hopefully, Aaron and my efforts to cover our research and equipment will keep them in the dark for awhile. But they're not stupid. They'll work it out someday."

"Until then," Julian said, "we'll avoid making it easy for them... we'll stay out of sight, until we know we can defend ourselves." His eyes surveyed the people in the room. "It's time for a new mission for Verdant. We are no longer a satellite. Verdant is now... a space ship. And our job is to keep it flying, as long as we can... until we can go home again."

Julian stood up. "Let's get busy."

# 40: Living

When Calvin returned home, he immediately smelled the inviting aroma of spaghetti and mushrooms, tomato sauce, zucchini, and fresh bread. He followed the aroma into the kitchen, where he found Erin working over the stove. Erin looked around in surprise when he appeared in the doorway.

“I didn’t hear you come in,” she said, crossing over to Calvin and giving him a big hug. They held their embrace perhaps a bit longer than normal for them, but neither of them felt the need to break it off before the other was ready. When they did finally pull apart, Erin said, “I know it’s a bit early for dinner... but I think you need it, Daddy. We both need it.”

Calvin’s eyes roved over the kitchen, and his lungs filled with the sweet smells of one of his favorite meals. He looked at Erin, and his eyes softened for the first time in two days. Erin smiled back upon seeing a sign of her old father coming back, and momentarily, the shine of tears caught the light. Calvin nodded, and managed a smile. “Thank you, honey. Yes, I can really use it.”

Erin turned back to the stove, quickly, before she teared up again. “I’m guessing that things are going to be very different around here for a while. The net is full of talk about the missile attack, and they know we’re not over Mars any more...” She looked over her shoulder at her father. “Are we even still in the solar system?”

Calvin regarded his daughter, whom he knew was as sharp as her parents. Still smiling, he shook his head.

Slowly Erin’s mouth fell open, and her eyes widened, as she considered the implications of Calvin’s answer. She had apparently suspected it, but getting confirmation from her father settled it. She turned back to stir the spaghetti. “No one knows when we’re going to go back... do they?”

“No,” Calvin replied, “we don’t. And yes, things will have to be different, until we do go back.”

“So, we will go home?”

“I’m sure we will,” Calvin replied. “Eventually. But we have to make sure it will be safe for us to return first. Establishing that may take some time. So... we may be out here for awhile.”

“Well, that’s okay, I think,” Erin said, not turning from her pot. “We got this far. I’ll bet we can do wonders. We’re a pretty resourceful people. And we know how to take care of each other.” Finally, she turned from the pot, and Calvin saw the tears streaming down her cheeks. “Now, go get freshened up for dinner... it won’t be for another ten minutes...”

She fell into her father’s arms again, and they held each other for perhaps a minute. The moment wasn’t over until Calvin peeled her off of him, and physically turned her towards the stove, where the tomato sauce threatened to boil over the edge of the pot.

“Got it, got it!” Erin laughed, lunging for the pot. As she rescued the sauce, she said, “Go, go get cleaned up!”

Calvin smiled back, and finally turned and headed out of the kitchen. On the way to his bedroom, he passed Erin’s room... then stopped, suspecting he’d seen something out-of-place there out of the corner

of his eye, retraced his steps and looked inside. There, on Erin's bed, was her overnight pack. He stepped inside the room and walked slowly over to the bag. He reached out, and laid a hand on it. It was already packed.

Calvin's eyes danced with conflicting emotions, though none could be said to gain the upper hand over the others. Slowly, he backed out of the room, and considered returning to the kitchen. He stood there for a long time, just staring down the hallway. But then he turned around, and continued on to the master bedroom.

When he reached it, he saw exactly what he had decided beforehand that he would see: His own overnight pack, resting on the bed, empty, zippers open.

Fifteen minutes later, Erin had the table set, and the steam from the dishes rose invitingly into the air. "Daddy! Come and get it!"

Calvin walked into the kitchen, and Erin immediately did a double-take. Calvin was still unshaven and tired in appearance, but he seemed to be standing straighter than he had in days, and the tortured look in his eyes had faded noticeably. He stepped up to the dining table, tossing a loving look at his daughter, and sat down eagerly. Erin sat down after him, and the two of them began spooning out portions onto their plates.

As Calvin ladled sauce onto his spaghetti, he said, "So, planning a little camping trip? For tonight or tomorrow?"

Erin looked at her father a bit anxiously. "Tonight. No time like the present, right?"

Calvin did not reply for a moment. When he finally raised his head, he said, "How much time are you going to give me to pack?"

~

"This is a damned silly tradition," Reya commented just loudly enough for the nurse to hear. The nurse merely smiled down at her, and continued to push her wheelchair down the corridor towards the hospital exit. "I mean, I got shot in the hand... not the leg. I even got a local anesthetic. I can still walk."

"I can see now," the nurse said kindly, "why the doctor didn't argue with you when you said you didn't want to stay."

As they approached the main lobby of the hospital, the nurse unexpectedly steered the wheelchair away from the doors. Reya, who was examining the fresh bandaging job done on her hand, looked up when she realized they had turned. "What?—" Then she caught sight of a man standing in the path of her wheelchair, and she smiled brightly for the first time in over a week.

"Oh, you don't look so bad," Lem Carter smiled down at her from above a large bouquet of roses, asters, alstroemeria and chrysanthemums. "From what I heard of the loud complaints everyone in the hospital was hearing, I figured you'd lost an arm or something."

He held out the bouquet to Reya, who took it with her good hand and cradled it in the crook of her injured hand's arm. "Thank you, Lem! And is this a slightly-late get-well-soon visit?"

"Actually," Lem replied, "it's a right-on-time pick-up. As I happen to be temporarily unemployed at the

moment, I'd like to offer my services as your assistant. After all, with only one good hand, you'll need a bit of help getting things done for a while."

"Oh, I will, will I?" Reya said wryly.

"In fact," Lem went on, "I have a special convalescence suite arranged just for you. You should remember the place... you recently helped me to dispose of some perishables there."

Reya's eyes fairly twinkled in response. "Perishables, eh? Yes, I remember the place well." Slowly she stood up out of the wheelchair, and placed her good hand in his. "I hope you called for a hired car."

Lem looked at her dubiously. "You don't think I can drive you?"

"Oh, *I know* how well you drive," Reya replied smoothly. "But you might have trouble keeping your mind on the road."

~

When Julian came out of the bathroom, he lingered on the paintings on the walls, the sculptures he saw on the shelves, instead of hurrying back to the dining room table. This was the first time he had visited Kris' flat, and he wanted to take in the aspects of her tastes that she liked to put on display. The flat had a primarily modern style, but accented with some wonderfully eclectic pieces, including two classic movie posters, a display column that rotated through various nineteenth- and twentieth-century Earth cityscapes, and a popular and critically-acclaimed twenty-first century impressionist version of the *Discobolos*. Overall, an impressive and attractive collection of art, worthy of such an incredible woman.

As he came around the corner of the hallway, he saw Kris seated on one side of a small dining table that overlooked the balcony, providing a fetching backdrop of Verdant by night. Though restrictions would change soon, Verdant's interior was still lit up like a gridwork of stars, a model of the heavens wrapped around a cylinder of civilization. Julian momentarily reveled in the fact that it was still intact, it was still surviving, and under the care of him and his excellent staff, God willing, it would continue to do so.

His daughter Anise was on the other side of the intimate table, and she and Kris were sharing a laugh over something that he'd obviously missed. He smiled as he approached, taking them both in. "I'm glad you two are getting along so well," he commented happily.

The women looked up at him. "And why not?" Anise said at once. "After all, any woman who manages to bring a smile like that to my father's face deserves my undying respect!"

"Ani," Julian said mock-sternly.

"And besides," Anise went on, "she loves you, Daddy—"

"Anise!" Kris admonished with a laugh and a blush.

"—which means she obviously has taste."

"And fortunately, more tact than seems to be inherent in the Lenz family," Julian said, sitting down between them.

Anise laughed herself, and looked at her almost-empty wineglass. "I'm sorry... I've had more to drink

than I usually do. —uh, Have. Ha ha!”

“I thought as much,” Kris said, smiling kindly, and glancing at Julian. Julian suspected he knew why, and he suspected Kris had divined the reason as well: In exiling them from Earth, Julian had taken Anise from Sergei. He wasn’t sure when it had hit her, but he knew it hadn’t hit him until just a few hours ago... and his albeit-temporary inattention to his daughter’s needs, however temporary it had been, frankly pained him. Just one more reason to hope that their situation did not last too long, and that he would hopefully manage to deliver her back to her lover.

As these thoughts crossed his mind, Anise had enough time to study his and Kris’ glances. “It’s all right, Daddy,” she said after a moment. “I mean... it’s *not perfect*. But it’ll be all right.” She reached out and gripped Julian’s hand. “I mean, you saved the lives of everyone on Verdant. And helped to save mine, and everyone on the *Makalu*. When I weigh all that against being separated from Sergei... well, I can deal with it. And I don’t want you to be concerned.” She looked at Kris, and smiled widely. “I want you to be *happy*. You deserve it.”

“Yes,” Kris agreed, “you do.” She placed her hand on Julian’s other hand, and gave it a squeeze. “Dr. Rios said it best, Julian. It’s time to live.”

Julian returned the squeeze to both of their hands. “Then live we shall.”

## Afterword

Although I have taken certain liberties in the creation of the “Verdant drive,” I have based my work on the actual research and findings of many scientists. Please forgive me if my descriptions of these are vague... I am not a quantum physicist. I’m just trying to get enough out of all this weirdness to tell a good story. I hope I’ve succeeded.

The concept that the universe has a “quantum frequency,” unique at every distance from the center of the universe, is borrowed from the *Scientific American* June 2005 article, entitled “Inconstant Constants.” It identifies a Fine Structure Constant (alpha), which defines the strengths of the interactions of elementary particles, and which suggests different interactions at different degrees of alpha... in other words, a unique frequency at any specific radius from universal center. This is a function (one among many) of the expanding universe around us.

This detail meshes well with the Hubble constant, which indicates that the universe is expanding faster where it is further away from universal center than it is closer in. The differing expansion rates cause measurable changes in light frequencies, creating a seeming paradox of objects that, from our point of view, can travel “faster than light.” These observations are described in the *Scientific American* March 2005 article “Misconceptions About the Big Bang.”

This, and lesser articles in *SciAm* and other sources, was my basis for the “quantum frequency” that the Verdant drive could manipulate on a local level, essentially altering the frequency of anything within its influence.

Couple this with many experiments in accelerating quantum particles, resulting in their “disappearance” from one position and “reappearance” in another position. In these experiments, the quantum particles



seem to traverse a distance faster than light could travel. Don't ask me how any scientist manages to tell one quantum particle from another, but they are certain these particles are one and the same... meaning that they are covering a distance faster than light. Most scientists believe they are travelling through another dimension, in an effect they call "quantum tunneling."

Verdant Skies ties "quantum frequency" and "quantum tunneling" together by suggesting that quantum particles, having a new quantum frequency forced upon them, will automatically "tunnel" to the distance from universal center that corresponds to that quantum frequency. The demonstrated effect of "quantum entanglement" suggests that, if the particles all "tunnel" at the same time, they will maintain position and state with each other, resulting in a collection of particles arriving in the same overall state as when they departed.

My own contribution to all this was the suggestion of "aiming" such an effect, to allow the tunneling to travel in a desired direction, essentially targeting a particular point on a frequency-derived sphere... and, of course, the method in which an entire collection of particles can be re-tuned to a new quantum frequency fast enough to all "tunnel" together. Presto: One Verdant drive.

An interesting aside to all this is that it suggests that different levels of alpha would result in different elementary interactions... for instance, a smaller alpha would mean a weaker gravity, weaker atomic bonds, etc... and that global expansion may mean a different alpha further away from us, and therefore parts of our universe with different physics than our own! Dr. Silver hinted at this in her descriptions of the system to her superiors, and it suggests that there may be a point in which it would be impossible to reach... or, more ominously, impossible to survive, as the moment you arrived, the quantum interactions of your particles would change so severely that they may interact in new and horrible ways, or even dissipate altogether, never to be rejoined again.

~

This concept developed out of my years-long dissatisfaction with the much-used concept of "faster-than-light drives" so popular in science fiction. Although the idea of simply using raw power to move faster than light has a certain fascination, and makes for great drama and adventure, there was never a realistic basis for any of them to actually work. Such FTL drives invariably involved some hitherto-undiscovered energy source that would somehow do the job... but realistic research has proven that the amount of energy required would require the collected energy of several stars to accomplish.

Other methods involved a mystical "hyperspace," a type of dimension that we could somehow slip into, inside which the laws of our universe's physics broke down, and fortunately for us, all distances were significantly shorter, allowing us to sail from one place to another as fast as we might cruise across the Mediterranean. Again, the idea provided that great drama, but as no "hyperspace" has ever been identified, nor a way to actually get into and out of it, this concept is no less vacuous than that of FTL drives.

Despite this, I have used the concept of FTL drives myself... in my case, a variant on the "time bubble" theory in which a time bubble can be moved faster than the speed of light, while a space craft inside that bubble uses an inner time bubble as a sort of Dewar bottle, to alter the relativity process, making sure the same amount of time passed to the occupants as it did to the observers. I used this idea, yes, for its dramatic impact, and its absolute requirement to write the story in question. But I was never satisfied with it, and always searched for better ways to accomplish travel over the vast distances of our galaxy.

As a long-time reader of *Scientific American*, I struggled my way through most of the articles involving one aspect or another of quantum physics on a regular basis. To be honest, not a few of them left me in

the dust, and many others left as many questions as they answered (assuming I even knew what the questions were!). But I managed to slog through most every article that tied quantum physics into the makeup of our universe... and suddenly, certain things started to add up. I went back through my magazines, re-read articles, started taking notes, and Lo and Behold, a possible method of intergalactic travel suitable for believable science fiction began to suggest itself!

As I studied it, I began to realize that there was already a partial precedent for the system. Known as the “jump drive” concept recently popularized in the remake of *Battlestar Galactica*, ships did not travel faster than light, they simply “jumped” from point to point in the universe somehow (if anyone has ever tried to come up with a “realistic” method of making such a jump, I’ve never seen it. But then, I haven’t seen a lot...).

After I took down a few notes, I sent my material to a fellow SF reader (and all-around smart guy) I’d met through the MobileRead web site. He studied my notes, and came back with a confirmation that, if described well enough, it could work for an SF novel. Having that thumbs-up on my side, I ran with it.

Well, actually, I did no such thing. At the time, I didn’t have a story to use it on. I did have *The Lens*, the sequel to *Berserker*, ready to be worked on... but the “Kestral Universe” setting already featured one of those adventure-driven FTL drives I mentioned earlier, and I wasn’t going to change that universe in mid-stream. So I began working on *The Lens*, and hoped to develop a good storyline for what I was calling the “Quantum drive.” Before I finished *The Lens*, a kernel of a story was beginning to bubble up, and I took a few notes on the side about an orbital satellite that would use what I was referring to as the “Quantum drive” to escape some Earthbound catastrophe.

The rest, as they say, is history. Or, at least, it’s a story.

~

*Verdant Skies* also features one of my favorite ideas, the concept of an orbiting habitat that simulates life on Earth as close as possible. When I wrote *Factory Orbit*, I envisioned a possible offshoot of that future that would lead to colonies in space, of which the orbital factories would present the groundwork and spring-board for more elaborate constructions. I hint at this in the novel as well... so, in a way, *Verdant Skies* could be thought of as the sequel to *Factory Orbit*.

I wish such an orbital habitat could come about much sooner, of course, but I expect that it will take more than wishing to make that so... only a specific and absolute need would drive mankind to undertake such a monumental task. Of course, as the planet becomes less stable thanks to global warming, continent-hopping plants and animals altering ecosystems faster than we can react, new bacteriological strains, and of course new weapons, etc, etc, that absolute need could come about faster than any of us might expect.

~

And finally, the villain of this story may seem to be the United States... but in actuality, the real villain is the Yellowstone Caldera, also based on actual scientific findings. Geological evidence has suggested that the Caldera, and others like it on Earth, have a habit of erupting and re-erupting on a regular basis, and creating havoc in their wake. Yesterday’s theory of a meteor strike that killed the dinosaurs is already being looked at in a new light, as it’s been discovered that a caldera similar to the Yellowstone, but much larger, erupted in the volcanic ranges west of the Indian regions. It is now suspected that it was this eruption that actually ruined the global climate, and had begun the slow extinction of the dinosaurs. The meteor, it is now believed, merely helped speed up an already-established process and a foregone

conclusion.

The Yellowstone Caldera has had numerous eruptions of its own in the past, with an approximately regular period of time between eruptions. If it follows its established pattern and erupts again, it could obliterate entire states, and render much of the Midwest uninhabitable for the foreseeable future. It could also spew an ash cloud that would eventually reach around the globe, causing runaway weather alterations and events that could be disastrous. Such an event could trigger worldwide loss of agriculture, worldwide long-term health risks, heavy loss of life, severe damage to the overall ecosystem, and a speeding-up of the global warming process. In other words, it's not a good time to look forward to.

And scientists studying the site now provide chilling evidence that today, the Yellowstone Caldera is a few thousand years *overdue* to erupt... in other words, it could go at literally any time...

Steve Jordan

July, 2009

Other novels by Steve Jordan

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*"All in all a thoroughly enjoyable read. If you preferred the original Star Trek series over the later incarnations then you'll love this. 7/10."*

- digiReader.com

Berserker (the Kestral Voyages)

**Carolyn Kestral, discharged Galarchy Ranger, begins her new life as a freighter captain and collects a small crew. But there is a question of whether the Berserker virus that forced her Ranger discharge is still capable of being activated and turning her into a deadly human**

**weapon. If it is merely dormant, will it be set off by a clandestine first run and a dangerous run-in with the Spiders in deep space? Will her crew stick around long enough to find out?**

*"Mr. Jordan has a good sense of action, and a great interest in the minutiae of running a space ship... It's a worthwhile read."*

- eBook-Reviews.net

*"All in all a thoroughly enjoyable read. If you preferred the original Star Trek series over the later incarnations then you'll love this. 7/10."*

- digiReader.com

### Chasing the Light

Tom Everson, forced to flee his home during the 2011 oil riots, returns eight years later to find the girl he had to leave behind, start a business and make a life for them both. But he had to sneak into the country illegally, the energy situation has only gotten worse, and the country may break out in more riots at any time! Did Tom arrive at exactly the wrong moment?

A romantic adventure, taking place against the backdrop of America's energy future.

### As the Mirror Cracked

**The Mirror isn't just another virtual world... it's a worldwide phenomenon, deeply intertwined with real world culture and finances. So when a plot to destroy the Mirror is uncovered, it's serious! It's a race to save the Mirror, and the real world with it, led by a mild-mannered writer and his Mirror "reflection"—the ultimate superhero, Zenith!**

Virtual worlds can be fun, even profitable, but if your life depends on one, you'd better make sure it stays up!

### Lambs Hide, Tigers Seek

**In 2001, heiress Ellen Levinson vanished from a downtown Washington hotel under mysterious circumstances. Five years later, a series of blackmail letters lead investigator Alain Guest to Nashville, and into the local Goth and bondage scene, in search of the missing girl. Will he find Ellen alive... manage to avoid the blackmailers... or will his own fractured psyche finally shatter under the onslaught of such extreme and sexual lifestyles?**

My first non-Sci-Fi novel, a noir-style psychological drama with a little mystery thrown in.

*"Great, great, GREAT book. Excellent story, really enjoyable characters, and the way you throw in things that us geeks enjoy, like gps, pdas, ebooks etc is really cool. Oh, and i actually cracked up a few times."*

-Daniel Mores ([www.mores.cc](http://www.mores.cc)), commentary on PocketPCThoughts.com

## Encephalopath

**Glen Jansen is seeking to improve his work and prospects when he purchases bleeding edge personal computer technology. But when the tech gives him unexpected access to strange parts of the net, and seemingly to other people's very thoughts, he finds himself on the run from the government, the mob, and a bunch of ersatz terrorist/patriots, all while trying to find out who's really controlling the country's networks!**

Somewhere between Johnny Mnemonic and The X-Files is an aspiring architect thrown unwittingly into a national conspiracy! And you thought your workday was a pain!

*"...if you are looking for more content in addition to Baen's collections or the olders books from Gutenberg or ManyBooks, this is an excellent new author to give a try."*

- MobileRead.com

## Worldfarm One

**All Keith Maryland wants to do is leave the collapsed United States and start a new life in the U.N.'s ambitious Worldfarm project. But with American prejudice directed at him, demeaning office politics forced upon him, the distrust of his colleagues, and the unwanted attention of local drug smugglers—not to mention a mysterious past that he hopes to leave far behind—he soon wonders whether this was the best, or the worst decision of his life.**

Want to know what it's like being an immigrant in a country that doesn't like you? Neither does Keith Maryland. Sometimes, being a foreigner can suck.

## Evoguía

**A scientist in Atlanta creates a revolutionary breakthrough in accessing the untapped potential in humans, and in so doing, sows the seeds of a war between Homo Sapiens and Homo Evoguía... the Self-Evolved Man...**

Who says mucking around with DNA is the only way to change the human body? This story covers three generations and three crises caused by the attempt to improve the species!

*"...highly emotive...sure to make the reader consider their own position were they to be placed on either side of the evoguía divide. 9/10."*

- digiReader.com

## Sol

**The Solars are the grunts of the Union... unappreciated and maligned. Even the creation of a new drive engine, capable of taking the Union on an unprecedented trip to the Inner Arm, earns**

**them no respect. But when the Solars discover that an alien race is on its way to take over their ancient homeworld, no race in the Union can stand in their way.**

A good old-fashioned space opera, with humans as the underdogs, lots of aliens, exploring other star systems, and an unexpected visit to the homeworld to save it from an impending invasion! Can't beat that with a blaster butt!

*"...Once again Steve Jordan has produced a riveting read, part mystery, part sci-fi. And whilst you always know the good guys are going to win in the end there are still plenty of twists to keep you reading breathlessly till the final words. 9/10."*

- digiReader.com

Midgard's Militia

**Imagine a world of Superheroes: The godlike figures; the daring exploits; the incredible battles; the frightening mayhem; the thrilling victories.**

**Now imagine a world suddenly without its heroes.**

**Earth's heroes have just been killed on an outer space mission. And as the deadly force that destroyed them now rushes towards Earth, brave souls come forward to try to take the place of the heroes... to keep the world safe...**

*"...a fun book, along the lines of the heyday DC/Marvel comic books. The story is much more Clark Kent than Superman and all the more enjoyable for it. 7/10."*

- iBme Network.

FactoryOrbit

**Ted Canter responds to a job offer and ends up at the next stage of the Industrial Revolution: Living and working in orbit. And in the midst of his experiences as a space pioneer, he finds himself at a pivotal moment in history...**

A realistic blueprint for the next logical step in Mankind's industrial development—the development of working outposts in Earth orbit, the next frontier. Desire for profit may get us there, but ordinary men and women will make it work.

Robin

**When Dr. Morris Cole tries to convince Robin Taft to give up the valuable medical equipment of her late mentor, she disappears literally overnight, equipment and all. Years later, Dr. Cole finds Robin Taft, but with a new name, a new face, and a secret too incredible to believe.**

**A secret he may not be able to keep.**

*"...a good premise and a main character with a cat-like personality."*

- eBook Reviews.net.

*"...an enjoyable and compelling read...8/10. A must for Sci-fi fans."*

-iBme Network

Free downloads from the SJB:

The Onuissance Cells

Onus \n (ca.1640): Obligation; Responsibility.

*Onuissance \ onn-uh-sonns\ n (ca.2280): Historic period known as The Age of Responsibility.*

**A series of short stories following the daily lives of the men and women of Midland City, Jewel of Namerica. Primarily centered around the complement of Peacekeepers assigned to the station, led by Commander Thomas Beak, each story is a window upon the new era known as the Age of Responsibility, or Onuissance, and the people who will define that era.**

*"...worthy of being compared to the Lord of the Rings... This book was brilliant and I would recommend it to any-one who likes sci-fi or human interest stories. I was gripped by both the characters and the environment they lived in, and was left wanting more. Thoroughly enjoyed it!!  
8/10"*

-digiReader.com

The First Expedition

*Follow-up short story to The Onuissance Cells*

**"They should have turned back at the Moon." That was what they said about the ill-fated First Expedition to Mars. Now Matt Cartier, ex-Midland Peacekeeper, has followed his soul and made it to Mars... and finds one of his first duties is to lead his fellow astronauts to the site of the First Expedition.**

Matt Cartier was the man with the heart of an explorer, who took his leave of the Midland Peacekeepers to join the Second Mars Expedition in the first chapter of the Onuissance Cells (Tour of Duty). His mission is a success... but before they can start exploring, Matt must visit the site of the unsuccessful first Mars mission, now 200 years dead.

See all novels, and more, at [www.SteveJordanBooks.com](http://www.SteveJordanBooks.com).

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