

LANDFALL

This is a work of fiction.

Draft manuscript: Copyright 2012

“A film is - or should be - more like music than like fiction. It should be a progression of moods and feelings. The theme, what’s behind the emotion, the meaning... all that comes later.”

-Stanley Kubrick

Introduction

I am not a storyteller.

My background is in journalism and when the opportunity came to write about the events surrounding the Gliese mission, I readily accepted, assuming I would write a 10 page essay that could be used as a quick reference for college students.

But what started as a 10 page essay turned into a massive research dissertation into the last 30 years of American foreign policy, black projects, and the shifting (often painful) motivations behind the choices we make as Humans.

As I found myself growing closer to the people I interviewed, so too did my writing change. Narrative began to break up the stuffy academic writing and color the persons and places in a new light, one without the jaded filter of the American news media.

My intent is not to confuse, but to illustrate.

Much has been said and written about the Gliese mission over the past year. It is difficult to look beyond news headlines or a quote taken out of context and find a real Human being amid the chaos.

I ask this: please try.

None of us is perfect. Essential to the Human condition is the making of mistakes. How we choose to recover from those mistakes is what gives us character... not what Rachel Maddow says about us on MSNBC.

Karsten Bjarke

karsten.bjarke@live.com

Aurora

“We only have a military-industrial complex until a time of danger, and then it becomes the arsenal of democracy.”

-Ronald Reagan

In 1981, President Reagan met with a team of advisors comprised of officials from the US Air Force, Department of Defense, and the Defense Advanced Research Projects Agency (DARPA). The purpose of the meeting was to discuss the development of a replacement for the capable, but aging, Lockheed SR-71 Blackbird.

At the time of its conception, the SR-71 was intended to be a high speed, high altitude reconnaissance aircraft capable of augmenting the reliable, yet slow (and therefore easily targeted), U2 spy plane. The USAF demanded a vehicle that could outrun surface to air missiles, refuel in mid-flight, and snap high quality pictures from altitudes above 50,000 feet.

The contract was awarded to Lockheed Martin who promptly turned the entirety of the program over to their Advanced Development Program, Skunk Works. The aircraft was decades ahead of its time, made almost entirely of titanium (at the time, a “new” metal), with ramjets to provide power and a radical new design that drastically reduced its radar signature. At its introduction in 1966, the plane had already been performing covert test flights for two years and the awestruck American public greeted it with praise, assuming it would be *the* penultimate weapon against the Soviets.

But as the fleet of Blackbirds aged and detente took precedent over the Cold War arms race, public opinion cooled and maintenance costs rose. Titanium in 1966 was relatively impure and forging processes had yet to be developed that could bond it into an alloy with other super-metals. As a result, the metallurgical flaws in the Blackbird were severe: as the plane expanded and contracted repeatedly with the heat of flying at Mach 3+, the titanium began to degrade with whole panels requiring replacement at considerable, unforeseen expense.

Furthermore, emerging technology and diplomatic efforts during the 1970s were underway. Satellites capable of taking pictures were launched into orbit high above the earth, out of range of anti-aircraft missiles, requiring no jet fuel, and completely undetectable to the enemy. Nixon’s push towards detente and his visit to China undermined the primary conflict for which the Blackbird was built. And as if to put a nail in the coffin of the SR-71 program, by 1972, 12 of the original 32 Blackbirds had been lost in “accidents”, totaling over \$1 billion in construction

costs alone, not to mention research & development, maintenance, training, and general overhead.

A replacement was needed that could meet and exceed the capabilities of the original aircraft. And so during Reagan's meeting with the Air Force, it was decided that the new spy plane should be a hypersonic aircraft, capable of sustained speeds between Mach 4-6 with the ability to fly at an altitude of 200,000 feet, well out of range of antiaircraft missiles. It would have a newer, stealthier design capable of carrying a nuclear payload for a range of up to 10,000 miles without refueling and the metallurgical processes used in casting the airframe would be rethought from the ground up to improve structural rigidity during repeated expansion and contraction. Computers would be used to help keep the aircraft aloft in a fly-by-wire system, lessening the reliance on pilots whose errors had caused the loss of several Blackbirds. And the airframe would be easily upgradeable to suit different purposes: nuclear payloads, surveillance, and even the ability to carry paratroopers.

By 1982, research and development was underway on the project, chaperoned by DARPA and codenamed Copper Canyon. Initially, Copper Canyon's aim was simply to replace the SR-71 with a faster, higher, better aircraft. But as the Space Shuttle program gained new ground in the early 1980s, cost assessments of the shuttle program provided a reason for Copper Canyon to expand its aims: at nearly \$500 million per launch, the Shuttle Orbiter was hardly cost effective.¹ And when Ronald Reagan gave his "Star Wars" speech in 1983, detailing his plans for a Strategic Defense Initiative that would include warfare from space, the Shuttle, with its design focused on scientific missions, satellite placement, and ferrying space station components, was not versatile enough to meet the demands of the SDI. DARPA chief Robert Cooper brought on Space Shuttle manufacturer Rockwell International for help converting the hypersonic spyplane into a spaceplane.²

¹ http://www.nasa.gov/centers/kennedy/about/information/shuttle_faq.html

² Unlike other high profile projects like the B-2 stealth bomber, Copper Canyon was never put out for competitive bidding among the various defense contractors. The aircraft was considered, from the start, a technological stepping stone that would result in at most one or two functional prototypes before a new set of more finite requirements were drafted for a production version. As such, defense contractors like Lockheed, Boeing, and Northrup were largely unaware of the project until years into its development.

But after two years of stagnation and technical difficulties on the project, Reagan decided to shake things up. In 1985, he replaced White House Chief of Staff James Baker with Treasury Secretary Donald Regan. Regan's first duty as Chief of Staff was to protect the interests of the president in the face of flagging support on Capitol Hill, specifically on the issues of the SDI and the national security network. Meeting with Defense Secretary Caspar Weinberger, Regan pressured him to find a suitable replacement for DARPA chief Robert Cooper whose ignorance of politics had resulted in numerous appearances before congress regarding the B-2 Stealth Bomber, the development of supercomputers, and progress on the SDI. The administration had grown weary of constantly trying to mitigate Cooper's unvarnished remarks while preserving his credibility *and* their support for increased defense spending in the midst of an impending economic crisis. Cooper's replacement would need political savvy, engineering brilliance, and forthright leadership if Copper Canyon was to succeed.

Weinberger selected Robert C. Duncan for the position and gave him specific instructions to retool the Copper Canyon project immediately. Duncan, an aeronautical engineer by trade, was best known for his work on the Apollo program and for the development of the collapsable Polaroid SX-70 camera. If anyone would be able to make a spacefaring spy plane, Weinberger reasoned, it was him. By mid-1985, Duncan had renamed the project Aurora and was already hard at work, pushing Rockwell to make the necessary changes to the airframe design.

But with the *Challenger* disaster in January of 1986, Rockwell's reliability as a manufacturer of spacecraft was immediately brought into question. With the fleet of Space Shuttles grounded for the next two years and an investigation into the cause of the accident slowing their progress, Rockwell's focus shifted to their existing contract with NASA rather than the comparatively risky venture with DARPA. Progress on Aurora was halted on Rockwell's end, leaving DARPA and the USAF working alone.

Reeling from the *Challenger* disaster and knowing that the Cold War would not continue forever, Reagan pressed on with his vision of the SDI in the days that followed, deciding to merge military and civilian interests into one project: the aircraft would have to be able to carry a nuclear payload into space, deploy warheads at selected targets, and then return for a normal landing. Horizontal takeoffs would be mandatory as the Space Shuttle launches were easily seen

by Soviet spy satellites and had massive radar signatures. And if the aircraft went into production, it would have civilian applications as well, both for NASA and the general public so as to ensure the program's continued funding should the Soviet Union suddenly disintegrate. In his 1986 State of the Union, Reagan outlined these applications and his resolve to not abandon spaceflight:

*"[...] yes, this nation remains fully committed to America's space program. We're going forward with our shuttle flights. We're going forward to build our space station. And we are going forward with research on a new Orient Express that could, by the end of the next decade, take off from Dulles Airport, accelerate up to 25 times the speed of sound, attaining low Earth orbit or flying to Tokyo within two hours. And the same technology transforming our lives can solve the greatest problem of the 20th century. A security shield can one day render nuclear weapons obsolete and free mankind from the prison of nuclear terror. America met one historic challenge and went to the moon. Now America must meet another: to make our strategic defense real for all the citizens of planet Earth."*³

Now known to the public as the National Aerospace Plane, or NASP, Duncan was initially hesitant to move the Aurora project forward. With Rockwell out of the picture for the foreseeable future, Aurora was literally dead in the water by February of 1986. A new aerospace manufacturer was needed who could pick up where Rockwell left off without any gaps in understanding or intent.

But finding a new contractor would be difficult, especially as the savings & loan crisis deepened. Rockwell was, at the time, the largest defense contractor in the world with over \$8 billion in assets and nearly 100,000 employees. Fronting the venture capital for a high-risk research & development project with a shadowy government organization like DARPA was business as usual and posed little threat to the bottom line. With other aerospace firms, the story

³ http://reagan2020.us/speeches/state_of_the_union_1986.asp

was quite different and the limited amount of funding that the government could bring to the table would be of paramount importance in contract negotiations.

Duncan also knew that the new contractor would have to possess an intimate understanding of hypersonic flight, scramjet technology (which DARPA and NASA were pioneering in a tangential joint venture), and the changing nature of defense projects as the Cold War drew to a close. That initially ruled out McDonnell Douglas whose experience in high altitude/sub-orbital flight was limited in comparison to other aerospace manufacturers.

Furthermore, if Aurora was to become a civilian *and* military project, the contractor would need experience in both areas. That ruled out Northrup who, while their development of the B-2 bomber was impressive and decades ahead of its time, possessed few civilian aircraft in their portfolio.

And perhaps more than anything, the new contractor would have to maintain an untarnished reputation for reliability. What had happened to Rockwell in the face of *Challenger* could not happen again, lest a senate oversight committee strike DARPA's budget from their ledgers in an effort to curb fruitless defense spending. In addition, Rockwell CEO Bob Anderson had made it clear that his company was no longer interested in working on the project, killing any hope of Rockwell returning to collaboration within a suitable timeframe. Rockwell's priorities had shifted, almost overnight, from developing the Aurora to reexamining the existing Space Shuttle fleet and constructing a fifth and final Orbiter to replace *Challenger*.⁴

That left Boeing and Lockheed. The choice was clear: while Boeing had a formidable record of military contracts and a booming civilian sector, Lockheed, Duncan believed, was far better suited to develop the plane in the first place. After all, it was the SR-71 that DARPA was charged with replacing. Who better to design that replacement than the original manufacturer? Lockheed had the engineering expertise, both civilian and military, and strong public opinion behind them as the SR-71 had already achieved cult status among two generations of teenage

⁴ Anderson would eventually step down in 1988 after the completion of the Shuttle program, by which time Space Shuttle *Endeavour* had already been put into production as a replacement for *Challenger*, fulfilling the original contract for five orbiters. After Anderson's departure, Rockwell would diversify into non-government contracts, the company never again reaching the level of success it experienced in the mid-1980s. Rockwell's aerospace division was eventually acquired by Boeing Integrated Defense Systems in 1996.

boys. And Lockheed had proven with the L-1011 TriStar that they could both build a solid passenger plane relevant to the economic demands of the time and design a functional fly-by-wire system for automated takeoffs and landings, a necessity for Aurora. To top it all off, Lockheed and Rockwell had teamed up to compete against Northrup and Boeing in the B-2 fly-off. The transition would be largely seamless as both companies had shared considerable amounts of technology that would feed into the development of Aurora.

For its part, Lockheed was eager to take on the contract. After the success of the F-117 Stealth Fighter, Lockheed's director of Skunk Works, Ben Rich, convinced the Pentagon in 1978 that utilizing stealth technology on a medium-sized bomber would boost survival ratios by 80% over the Rockwell B-1 in the event of a nuclear war with the Soviets. The B-1, Rich argued, was too easily detected by radar and prone to attack; most of the airplanes would be destroyed before they reached their targets in the Soviet Union. A new stealth aircraft was the answer. Upon reviewing several independent studies of the B-1's capabilities in a Soviet attack scenario, Undersecretary of Defense William Perry agreed and the USAF put the contract out to bid with 132 orders for the new aircraft. It was the largest military contract since the Manhattan Project and Lockheed, now partnered with Rockwell, was on track to win it.

But with Reagan's landslide victory in 1980, many of Rich's closest democratic supporters in the Defense Department, including Perry, resigned. To make matters worse, Lockheed's chief competitor, Northrup, began to lobby for consideration in the bomber contract. Headed by Rich's chief rival, John Cashen, Northrup had competed fiercely for the Stealth Fighter contract and lost millions when it was awarded to Lockheed. It was payback time and Northrup, aligned with Boeing, lobbied hard for a larger, heavier bomber to directly replace both the B-52 and the B-1. The Republican administration agreed and Lockheed's medium capacity entry into the B-2 fly-off was dismissed as wholly inadequate. Despite beating Northrup's prototype in nearly every flight test, Lockheed lost the bid in 1981. After the announcement, Rich and then-CEO Roy Anderson met with Air Force Secretary Verne Orr to discuss how the contract could have been awarded to Northrup on technical merit. The ensuing altercation would sour relations between the USAF and Lockheed until Orr's retirement in 1985.⁵

⁵ Colon, Raoul. "The Next Generation Bomber: A Brief Look at the B-2 Programme's Early Life." 2008. <http://www.century-of-flight.net/Aviation%20history/jet%20age/b2.htm>

On the civilian front, things were even more disappointing. In direct competition with the McDonnell Douglas DC-10 and Boeing 747, Lockheed had developed the TriStar L1011, a wide-body jet capable of seating 400 passengers on long-range transcontinental routes. With advanced safety features, a fly-by-wire program capable of automated smooth landings in zero-visibility conditions, and high efficiency engines designed to cut costs, the airliner should have been a resounding success, especially in the wake of several, highly publicized crashes involving DC-10s. But the TriStar was plagued with supplier problems from the start: Rolls Royce, who had been contracted to build the engines, declared bankruptcy and went into receivership in 1971, less than a year after production began. Modifications to the engines delayed test flights and a long-range variant was late coming to market by which time the DC-10 and 747 had already outsold the TriStar by more than two to one. Furthermore, American Airlines, who had shown enormous interest in the TriStar, abandoned Lockheed when McDonnell Douglas agreed to lower the price of the DC-10. Undercut and facing just half of the sales needed to break even on the initial investment cost, TriStar was cancelled in 1983 and by 1984, Lockheed had withdrawn entirely from the civilian market.

Duncan's invitation was a welcome breath of fresh air for a company plagued by financial difficulties and barely brought back to profitability after a humiliating 5 years. And so by 1986, DARPA, the USAF, Lockheed, and the CIA's Scientific Engineering Institute, were all engaged as collaborators on Aurora.⁶

⁶ The Scientific Engineering Institute is a CIA front company which acts as a consulting firm for defense contractors to ensure CIA specifications are met on any new project.

Although a 1985 federal budget draft for fiscal year 1987 listed Aurora by name under an allocation of \$455 million for “black aircraft production”, Aurora’s existence was not made public until 1990 when *Aviation Week & Space Technology* broke the story after in depth research into the Skunk Works program. The news caused a media storm and Aurora became a lightning rod for government conspiracies with NASP largely forgotten. The magazine’s research also turned up that the Aurora program, two years behind schedule by 1990, had completely blown through its budget in 1987, topping out at \$2.3 billion dollars by year’s end, a figure that would swell to a whopping \$4.5 billion by 1992.

However, in his book *Skunk Works*, Ben Rich claimed that the federal budget allocations in the *Aviation Week* article were for the development of various airframes that were in testing at the time to compete in the B-2 fly-off and that the money went to both Northrup and Lockheed.⁷ But Rich had worked at Skunk Works since 1954, then led by Cold War engineering legend Kelly Johnson. By the time he took the helm of Skunk Works in 1975, Rich had worked on the development of over a dozen experimental and black production aircraft, including designing the inlet ducts on the U2, the propulsion system and stealth paint on the SR-71, and later spearheading the development of the F-117 Stealth Fighter. And while the initial concept for the B-2 was Rich’s own idea, once the bid was awarded to Northrup in 1981, all federal funding would have ceased as the USAF took over paying out the production portion of the contract. So if Aurora was the codename for the B-2 competition, why was federal money still flowing into the project six years *after* the contract had already gone to Northrup?

Adding to the mystery, the US government officially denied any existence of a program called Aurora and, in contrast to the SR-71 program, no photos of the aircraft were ever released to drum up public interest and the entire project, despite the publicity afford to NASP.

Aurora’s secrecy was further compromised as evidence of the plane’s existence began to turn up in multiple locations. After the Aurora budget article ran in March 1990 issue of *Aviation Week*, unusual sonic booms were recorded by the U.S. Geological Survey throughout Southern

⁷ Rich, Ben R. and Janos, Leo. “Skunk Works”. Page 309. Little, Brown & Co. London, 1994.

California in 1991 and 1992. The USGS attributed the booms to a source flying at a high altitude and high Mach number, consistent with both the Space Shuttle Orbiter and SR-71. But upon closer analysis, the booms were deemed inconsistent with the Orbiter or the SR-71, neither of which were operating in the area on the days the sounds were recorded. Furthermore, the booms occurred in a regular pattern between Edwards Air Force Base and any number of secret test facilities in southern Nevada, including Groom Lake where the development of Aurora was allegedly underway. Even more peculiar was that the booms all occurred on Thursday mornings between 6.34 and 7:17AM PST, suggesting regular scheduled test flights.⁸

Circumstantial as it was, public evidence of the existence of Aurora was mounting. By 1992, a sighting of Aurora by British naval engineer Chris Gibson was made public. In 1989, Gibson had been working on the *Galveston Key*, a drilling rig located in the North Sea when he and a colleague, Graeme Winton, saw a triangular shaped aircraft refueling in mid-flight. In an interview for abovetopsecret.com, Gibson recounted the experience:

*"I was a member of the Royal Observers Corps for 13 years and was a member of the ROC's aircraft recognition team for 12 of those years. In this field I was considered to be an expert and produced an aircraft recognition manual for the ROC. [...] I looked up, saw the tanker and the F-111s, but was amazed to see the triangle. I am trained in instant recognition, but this triangle had me stopped dead. My first thought was that it was another F-111, but there was no 'gaps', it was too long and it didn't look like one. My next thought was that it was an F-117, as the highly swept planform of the F-117 had just been made public. Again the triangle was too long and had no gaps. After considering and rejecting a Mirage IV, I was totally out of ideas. Here was an aircraft, flying over head, not too high and not particularly fast. A recognition gift and I was clueless. [...] Whether this aircraft was an Aurora is debatable - my background precludes jumping to conclusions based on a single piece of evidence. [...] It is the only aircraft I have ever seen that I could not identify."*⁹

⁸ Cates, Joseph E. and B. Sturtevant. "Seismic detection of sonic booms". Graduate Aeronautical Laboratories, California Institute of Technology. 2003. <http://sonicbooms.org>

⁹ <http://www.abovetopsecret.com/forum/thread60770/pg1>

Gibson reported the sighting to *Jane's Defense Weekly* in 1992, causing a stir in the British Ministry of Defence. In March of that year, Minister of Defence Tom King received a memo regarding the subsequent investigation which stated: "There is no knowledge in the MoD of a 'black' programme of this nature, although it would not surprise the relevant desk officers in the Air Staff and [Defence Intelligence Staff] if it did exist."¹⁰

Later that same month, Steven Douglas of Amarillo, Texas photographed a peculiar vapor trail after hearing several loud sonic booms. And that April, radio hobbyists near Edwards Air Force Base in California intercepted radio transmissions from the base to an aircraft, codenamed 'Gaspie', regarding altitude and pitch control.

But in the end, despite the not-so-secret early test flights, Aurora in its original form was a victim of bad timing. Reagan and his advisors had anticipated nearly everything necessary to keep Aurora afloat, including weaving in civilian interest should the Cold War end (which it did, officially, in 1991). But their planning had overlooked one crucial element to Aurora's success: the development of computer technology.

When Copper Canyon was first laid out in 1981, computers were monstrosities that were barely able to perform trigonometric functions. Ten years later, it was a different story with personal computers rapidly taking up residence in nearly every household. The processing power of a modern smartphone is greater than that of the Space Shuttle whose main computer runs on just a single megabyte of RAM. Such quantum leaps in technology and the resulting exponential growth of dependency on computers left the Aurora project seriously outdated before it even got off the ground.

Compounding the effects of computer development was the rapid development of digital cameras. When the SR-71 was introduced in 1964, it used two optical film cameras located on either side of the cockpit on the underside of the chines running along the fuselage. Upon completion of a mission, the film would be removed, developed, and then analyzed to provide information to the intelligence community. Thirty years later, unmanned satellites and reconnaissance drones were flying above the earth with digital cameras whose data could be

¹⁰ Randerson, James. "Is it a bird? Is it a spaceship? No, it's a secret US spy plane". The Guardian. 2006. <http://www.guardian.co.uk/science/2006/jun/24/freedomofinformation.usnews>

transmitted directly to the computer monitor of an intelligence analyst. With no lag time for photo development, no risk to human life if the drone were shot down, and ice cold reliability, spy satellites and drones essentially put the SR-71 out of business.

Needless to say, the Aurora program found itself in a tight spot. Even though 3/4 scale prototypes were already making test flights, when the Clinton administration looked for ways to cut defense spending in early 1993, Aurora was near the top of the list. The SR-71 program had been extended another few years, pushing its retirement back to 1998. NASA's space program was partnering with the Pentagon to deliver spy satellites into orbit regularly. And Clinton's attempts at preventative foreign policy were initially equally as effective as the previous two administrations' arms build up. Aurora was no longer needed and while it had provided some useful ideas, no clear technological marvels had come about to warrant the continuation of its funding. The program was scheduled for cancellation in June of 1994.

But Lockheed and DARPA were in for a windfall: in February of 1994, Defense Secretary Les Aspin resigned after a string of political snafus including the implementation of 'Don't Ask, Don't Tell' and the mishandled crisis in Somalia. As his replacement, President Clinton picked a well-respected Stanford engineering professor who had served under the Carter administration, worked as a director for an investment banking firm, and had spearheaded the development of stealth technology. In Clinton's view, the combination of political, financial, and military expertise would serve him well and setup his administration for success. And so William Perry, the Undersecretary of Defense who had bought in to Lockheed's vision of a stealth bomber and then resigned when Reagan took office, was appointed Secretary of Defense in February of 1994. Aurora was saved, at last having a champion for the project serving in the president's cabinet.

By 2000, Aurora was behind schedule yet again as unmanned reconnaissance drones not only improved in accuracy, but also dropped in cost dramatically. Computers capable of piloting the drones without human input had gone from costing a fortune to costing a few thousand dollars. Digital cameras had now replaced film entirely, both in the government and consumer sectors. And nearly a decade of relative peace and economic growth under President Clinton in the 1990s had thrown many of the Defense Department's projects into question. Did the United States need a navy *that* large? If American troops were better trained, wouldn't the government need fewer of them? If diplomacy and good espionage were used correctly, conflicts would be minimal... right?

Unfortunately for Clinton, his administration might ultimately be remembered as the one whose laurel-resting policies in the wake of the Cold War cut defense spending in the face of growing threats against the United States from the Muslim world. Despite negotiating a tentative peace between Israelis and Palestinians, by the time Clinton left office in January of 2001, Islamist groups had gained unprecedented power in the Middle East. In Gaza and the West Bank, Hamas and the Arafat-led PLO were carrying out tit for tat attacks in response to Israel's increasing colonialism. In Lebanon and Saudi Arabia, Hezbollah, then financed by Iran, was undermining American-aligned security forces within the government. And in Afghanistan, Al Qaeda was gaining momentum in the wake of American diplomacy failures in Africa.¹¹

By the time 9/11 occurred, the United States had been curiously absent from military operations in the Middle East for nearly a decade, turning the other cheek in the face of embassy bombings in Kenya and Tanzania in 1998 and the attack on the USS Cole in 2000. The administration and congress instead busying themselves with the Balkans and infidelity scandals

¹¹ In the spring of 1996, Secretary of State Warren Christopher described Osama bin Laden as "the greatest single financier of terrorist projects in the world". At the time, Bin Laden was living in Sudan, a nation blacklisted by the State Department for harboring terrorists. Despite repeated attempts to open a dialogue with the American government and an explicit offer from Sudanese president Omar Bashir to arrest and extradite Bin Laden to Saudi Arabia on charges of terrorism, the Clinton administration remained impervious, fixated instead on the Jennifer Flowers and Monica Lewinski scandals. Desperate to get Bin Laden out of his country and resume normal relations with the United States, Bashir exiled the terrorist to Afghanistan with his assistant, Ayman Awahiri, in May of 1996.

in the White House. Aurora, similarly, had fallen by the wayside, shelved as a product of the Cold War, its funding cut as Perry was forced to grapple with the crises in Somalia and the former Yugoslav states.

Eager to change the passivity the world had come to expect from the United States, the Bush administration poured billions into defense spending as the war in Afghanistan intensified and the Iraq War was being planned out. Aurora *would* see a comeback... After all, billions had been invested into the program since 1981. At the very least they could use the technology from it, right?

Bush's first foray into meddling with the Aurora occurred when he decided that a leadership change was needed. Previously, the program had always been helmed by DARPA in cooperation with Lockheed and input from the Air Force, NASA, and the CIA. That had resulted in Aurora largely being an experimental test bed for different technologies. The sightings over England and the sonic booms over Southern California were likely not the same aircraft or even the same engines. In fact, Bush's investigations into the Aurora program turned up evidence for no fewer than six prototype aircraft, each with its own unique design, production method, and technological configurations.

Bush, while known as a heavy defense spender, drew the line: this was wasteful. If Aurora was to continue, it would have to proceed with *one* design, *one* engine configuration, and *one* production method. The government had to invest in technologies that were proven; there was a war on and that left little time for science experiments. At the same time, new technology must be pioneered quickly, efficiently, and with measurable results. On orders from Bush to streamline the Aurora into something practical rather than a dream, Defense Secretary Donald Rumsfeld stripped DARPA's involvement from the project in 2002. Too many times over the last 20 years had DARPA found some piece of new technology and sought to fit it in here or there in the Aurora, prompting a redesign and setting the production of the aircraft back. Going forward, Lockheed, the Air Force, and the State Department would be overseeing the aircraft's development.

The second time Bush dabbled in Aurora was after the breakup of *Columbia* in 2003. NASA's shuttle program had been limping along through the 1990s with a series of elementary

school science fair projects taking place in the Shuttle cargo holds rather than the practical transportation of satellites and SDI equipment. *Columbia* was the final tragedy Bush would allow in the space program: the fleet of aging Shuttles needed to be replaced. Rockwell was, by this time, almost entirely dissolved from its 1980s monolith and could not offer a replacement. Boeing had developed the Delta IV rockets and could easily evolve a Saturn V-like manned vehicle, but after the enormous flexibility of the Shuttle program, staged rocket boosters with astronaut capsules seemed like a step backwards. Bush's sights fell on Aurora, long a shadowy contender for a Shuttle replacement, but never quite there in practical application as its roots were steeped in the SR-71. With DARPA out of the picture and Defense Secretary Rumsfeld's hands full of Afghanistan and the mounting Iraq War, Bush transferred Aurora to the State Department, ordering Secretary of State Colin Powell to push Aurora through within the next five years. Powell immediately turned over his role in the project to a subordinate, Jan Kurovec.

Kurovec was a Czech national, born in communist Bratislava in 1951. In 1968, at the age of seventeen, he went to work for a newspaper as a photographer, propelled by his interest in photography and journalism. Alexander Dubcek's Prague Spring was in full force and for a time, he earned enough to support his mother, ailing from pneumonia, and himself with the lofty aspiration of attending college in America, the land of money and cars and beautiful women. But with the Soviet invasion in August of that year, Kurovec's career took an unexpected turn. By 1969, his newspaper, *Dnesni Svet*, fell under the influence of Soviet commanders of the occupation and became a tool for propaganda. Kurovec was sent to interview a member of the Politburo for an article praising Soviet treatment of the Czechs after the invasion. Kurovec took a few pictures, wrote his article, and went to bed that night after giving his text and film negatives to the printshop.

The next day, his life was in danger. Unknowingly, Kurovec had taken a rather candid picture of the Soviet official and never noticed the tiny spy camera sitting amid the papers on the desk in the background. It was a KGB F-21, a tiny 35mm camera that could be concealed in a jacket and had a nondescript button in place of a lens ring. The official, for his part, had neglected to conceal the evidence of his clandestine adventures and within hours, *Dnesni Svet* had landed on the desks of analysts at the CIA and British Intelligence. Upon the accusation that

a member of their political oversight committee was actually a KGB spy, Kurovec's life became instantly disposable. Kurovec, the Soviets claimed, had framed the official in a effort to undermine the "normalization" of Czechoslovakia. After all, he was young, raised under the increasing liberal reforms of Dubcek, and no doubt wanted the Soviets out. What other story could there be?

In fact, Kurovec had no special love for the Soviets or the West, nor did he have much interest in politics or restoring a "free" Czechoslovakia. What he did have was a keen eye for taking good photographs and a flair for writing in Czech, Russian, and elementary English, gleaned from years of listening to BBC in the middle of the night on a transistor radio.¹² Alerted to the KGB's interest in him by a chatty neighbor, Kurovec dug through a box of pictures and found a photograph of him and his mother, taken the prior spring in Prague's Wenceslas Square, placed it on his mother's nightstand, and kissed her goodbye as she slept, fleeing into the dark streets of Bratislava in the early morning of February 4th, 1969.

He was picked up by a CIA strike team before he had even made it two blocks, given a fake passport, and dropped off at the airport with a one-way ticket to Switzerland in his hand. It was a windfall for the young Czech, forever cementing his loyalty to the West. American generosity would pay off: after having been spirited away to Switzerland, Kurovec waited tables for a few months until he could afford a ticket to New York where he began working as a translator for the UN. In five years, he had gained citizenship, attended college, and become an analyst for the State Department during the peak of the Cold War, writing reports for the Nixon administration about the Soviets and briefing CIA operatives before their deployment. With the aid of West German intelligence, his mother had escaped Soviet occupied Czechoslovakia and was now peacefully living on a golf course in Indiana.

By 1981, he was part of Arthur Hartman's team of diplomats to the fledging Soviet Union, conducting espionage into their space program as rumors of a Soviet space shuttle duplicate swirled around the intelligence community. In 1985, he began stealing information on Soviet defenses to ensure the success of Reagan's SDI by determining the location and capabilities of missiles, satellites, and space stations.

¹² Kurovec would later publish a collection of photographs from his early years in Prague titled "Iron City".

But then came Gorbachev and *glasnost* which slowed Kurovec's espionage career considerably. Information on the Soviet space program was now readily available and there was far less to steal. With the collapse of the Soviet Union in 1991 and the exposure of deep failures in the Russian economy, it became apparent that the once robust Russian space program would pose little threat to the United States going forward. Rather, Soviet satellite states whose corrupt governments and mismanagement of nuclear resources proved the greater risk. So did rogue nations like North Korea, Iran, and much of the Middle East whose anti-American aspirations ran deep into their cultural roots and whose ability to procure a nuclear weapon was fast becoming a reality.

Kurovec returned to the United States and for a time, floating around to different analyst teams and providing insight on emergent players in the nuclear arena. But by the end of the 1990s, he was shuffling paperwork, stagnant with few opportunities for advancement. The message was clear: with the Cold War over, there was no longer room for a Soviet space expert at the State Department.

Facing retirement or obscurity in the spring of 1999, Kurovec chose obscurity and accepted an offer to head up the State Department's most secretive organization. There would be a pay cut, the organization's budget was small, and it was looked upon as a backwater of the intelligence community. But it meant that Kurovec, whose dramatic escape from the Soviets 30 years earlier had solidified his identity as an American, could continue working for the government he had grown to love. While the Soviets might have forced him into retirement (or into a labor camp if he refused), here was at least an opportunity for him to continue working. And that meant more than any title or paycheck.

Life in America was good.

In early July of 1947, President Truman received a phone call from Carl Spaatz, General of the Army Air Force. Spaatz was slated to become the first Air Force Chief of Staff upon its separation from the Army in September of that same year when the National Security Act was signed. The call to Truman regarded an incident in the town of Roswell, New Mexico. A farmer had discovered some sort of unidentified flying object on his land and had called the local sheriff after reading about “flying saucers” spotted just days earlier in Washington state. The sheriff had, in turn, contacted Major Jesse Marcel of the nearby Roswell Army Air Field for help collecting the wreckage, believing it to be some kind of experimental military airplane. Despite the ensuing media circus, the wreckage was publicly dismissed by the USAF as a weather balloon and the media frenzy around flying saucers eventually died down.

But behind closed doors, Truman’s response was anything but dismissive. A foreign object had penetrated American airspace at a time when tensions between the Soviets and the West were heating up. Truman ordered Air Force Lt. General Nathan Twining, then heading up Air Material Command, to investigate the incident. Twining enlisted the aid of Air Force Intelligence General George Schulgen in creating a task force to investigate UFO sightings, crashes and incidents, demanding an analysis and report of the Roswell incident by month’s end to present to the president. General Schulgen’s report concluded that yes, UFOs were real objects, but stopped short of offering an explanation of their origin. Twining’s subsequent analysis similarly stated that UFOs were potentially from a domestic aircraft project unknown to the Air Force and that, given their movement patterns, the Air Force should consider “the possibility that some foreign nation has a form of propulsion possibly nuclear, which is outside of our domestic knowledge.”¹³

The task force, named Project Sign, continued its investigation as subsequent UFO encounters were reported. In January of 1948, Kentucky Air National Guard pilot Thomas Mantell spotted and pursued a UFO in his P-51 Mustang, climbing so high that he blacked out from lack of oxygen and crashed to his death. Later that same year, a North Dakota National

¹³ AMC Opinion Concerning Flying Discs. Twining, Nathan. “The Twining Memo”. <http://www.roswellfiles.com/FOIA/twining.htm>

Guard Pilot, George Gorman, chased after a UFO for nearly 20 minutes before the object moved out of sight. Then in July, two Eastern Airlines pilots flying over Alabama claimed they saw a torpedo shaped UFO speed past their Douglas DC-3 in mid-flight, just days after a similar object was spotted near The Hague.

Project Sign, then headed by Captain Robert Sneider, began intensifying its investigation, piecing together a memo that would not only explain the UFOs, but provide a recommended course of action for the United States government. Sneider's explanation was nothing short of revolutionary at the time: the UFOs were alien vessels of extraterrestrial origin. That was the only explanation of the events that had transpired which didn't include the existence a super secret division of the government, highly advanced Soviet scientists, or mental stability issues coincidentally afflicting hundreds of eyewitnesses, many of whom were decorated WWII veterans whose credibility was not to be questioned. Called the "Estimate of the Situation", the memo was finalized in October of 1948 and submitted to the Pentagon for review.¹⁴

While it can never be known exactly what Air Force Chief of Staff Hoyt Vandenberg's reaction was, it is clear that the Pentagon went into chaos at both the evidence and the recommendations made by Captain Sneider. The personnel of Project Sign were transferred to other positions, the project itself was renamed Project Grudge in early 1949, and all known copies of the "Estimate of the Situation" disappeared.

Like its predecessor, Project Grudge was not destined for a pleasant fate. A pond stocked with fish from only one side of the political divide, the project turned out an exhaustive 600 page report in 1949 stating that there was no conclusive evidence UFOs were extraterrestrial in origin. Each sighting, the project maintained, could be explained away as natural phenomena or misinterpretations of standard Air Force crafts.

But by 1950, UFO sightings were on the rise. First there was the color video of two UFOs hovering over Great Falls, Montana, filmed by Nick Mariana for a juicy 16 seconds. Then there was the photograph of UFOs that graced the front page of the *News-Register*, McMinnville, Oregon's local newspaper. And in the summer of 1951, the citizens of Lubbock, Texas, were reporting lights in the nighttime skies and a mysterious "flying wing" passing over their town.

¹⁴ As of this writing, the United States government still denies any existence of the "Estimate of the Situation".

In response to the overwhelming number of calls to the Air Force offices about these incidents, Project Grudge was reformed into Project Blue Book and headed up by a young Air Force Captain named Edward Ruppelt. Ruppelt, who was dedicated to both pragmatism and open-mindedness, took seriously the claims of UFO sightings. The Soviets *had* threatened nuclear war with the West and anything in the sky could potentially be, at the very least, an intercontinental ballistic missile. His analysis of subsequent UFO sightings, including the infamous 1952 incident at Washington National Airport, were carefully constructed arguments that neither precluded nor endorsed extraterrestrial involvement.

But the CIA was not satisfied. The UFO incident at Washington National had generated near-panic in the American public who saw newspaper headlines like “SAUCERS SWARM OVER CAPITAL” and instantly feared for the worst. In an era when stakes were increasingly high, panic was not an option for a population that was expected to outperform, outproduce, and outdemocratize the Soviets at every turn. A physicist and CIA employee, Howard Robertson, was tasked with analyzing the Project Blue Book’s data regarding UFOs and come up with a concrete answer about whether or not they were a threat to the national security of the United States.

The Robertson Panel issued their findings in early 1953 and, like Project Grudge, concluded that over 90% of UFO sightings could be explained as natural phenomena and the remaining 10% could be explained away given further analysis. The panel also recommended that the US government begin an extensive media campaign involving the likes of LIFE magazine and the Walt Disney Company to debunk UFO theories and myths, thereby ensuring that the Soviets couldn’t induce mass panic in the United States by sending flying saucers across the Pacific. And if the recommendations weren’t damning enough, the effects of the Robertson Panel Report were even more sweeping: Captain Ruppelt resigned from Project Blue Book and the program was shelved to the back burner of the Air Force’s budgetary concerns.¹⁵

¹⁵ Ruppelt would later write a book in 1956 entitled “The Report on Unidentified Flying Objects” which detailed much of his experience with Projects Grudge and Blue Book. It was through the publication of Ruppelt’s book that the existence of the top secret Robertson Panel became known to the public as well as dozens of top secret reports on UFOs garnered during his time. His betrayal of the military’s code of secrecy in an era of McCarthyism may have cost him his life: Ruppelt died of a “heart attack” in 1960 at the age of 37.

But even if Project Blue Book was no longer taking UFO sightings seriously, incidents involving UFOs were still occurring. Most notably, the alleged abduction of Betty and Barney Hill in 1961 which, when eventually reported in 1965, caused a national uproar.

And in Washington, at least one person was still taking UFOs seriously. President Eisenhower, committed to national security and the insulation of American public interests from the military industrial complex, observed the showdown between Project Blue Book and the Robertson Panel with disgust. Blue Book and the cool-headed Ruppelt were adamant that extraterrestrials be considered a possible explanation for UFO activity. The Robertson Panel was diametrically opposed and showed no interest in recanting its findings. The battle over the theory of alien involvement in UFOs (let alone their existence) had turned into a soured political boxing match between puppet groups of the Air Force and the CIA.

In Eisenhower's view, any investigation into UFO's should be conducted by a third party. The Air Force, having been intimately tied to UFOs for 10 years by that time, was caving to the CIA's recommendations and betraying the very purpose for which they were founded: to objectively protect the skies over the United States. The CIA, preoccupied with Soviet intelligence, couldn't be bothered with investigating UFOs and would undermine the Air Force at any cost to keep its interests grounded to Earth where expensive defense contracts were on the line and behind-the-scenes payouts were no doubt commencing. A third party organization with full authority over both the CIA and the Air Force was needed, one that was largely immune from military industrial complex influence, and one that would take a diplomatic approach should aliens be found to exist.

Eisenhower ordered Secretary of State John Foster Dulles to organize a team of scientists and experts to investigate the occurrences of UFO sightings and abductions. The team would be entirely based within the State Department, answering directly to Dulles and with full authority to order the divulgement of relevant top secret information from any government organization or

contractor. Dulles is widely rumored to have handpicked the scientists in a meeting with Eisenhower himself, naming the organization the Division for Xenomorphic Affairs.¹⁶

Dulles' creation, known as DXA, was for nearly 60 years the most secretive organization within the United States Government, comprised of only 20 or so persons, all of which were given full aliases and cover stories to be used within the Department of State so as to justify their payroll. Following distantly behind Project Blue Book, which would eventually be cancelled in 1970, DXA took a more hands on approach to the investigation of UFOs and began collecting any and all physical evidence, including the wreckage recovered from Roswell in 1947.

Such evidence was described in detail by Major Marcel in a 1978 interview about the Roswell incident. Marcel states that:

There was all kinds of stuff—small beams about three eighths or a half inch square with some sort of hieroglyphics on them that nobody could decipher. These looked something like balsa wood, and were about the same weight, except that they were not wood at all. They were very hard, although flexible, and would not burn....One thing that impressed me about the debris was the fact that a lot of it looked like parchment. It had little numbers with symbols that we had to call hieroglyphics because I could not understand them. They could not be read, they were just like symbols, something that meant something, and they were not all the same, but the same general pattern, I would say. They were pink and purple. They looked like they were painted on. These little numbers could not be broken, could not be burned. I even took my cigarette lighter and tried to burn the material we found that resembled parchment and balsa, but it would not burn—wouldn't even smoke. But something that is even more astonishing is that the pieces of metal that we brought back were so thin, just like tinfoil in a pack of cigarettes. I didn't pay too much attention to that at first, until one of the boys came to me and said: "You

¹⁶ White House Press Secretary Wilson Anders publically denied the existence of DXA in a 2009 speech. However, budget reports dating back to the Eisenhower administration show Department of Defense funds set aside for DXA on a yearly basis. Additionally, notes from the hearings on the Gliese missions have been censored and certain senators are reported to have been escorted out of the chamber any time details of DXA's existence are made known.

*know that metal that was in there? I tried to bend the stuff and it won't bend. I even tried it with a sledgehammer. You can't make a dent on it.*¹⁷

If it was a weather balloon, as originally claimed in 1947, the USAF had some explaining to do. Marcel's interview hit the UFO community like a meteor: after 30 years of inactivity, public interest in Roswell soared to unprecedented heights, spurred on by cultural phenomena like the Soviet space race and *Star Wars*. In response to the new wave of interest, DXA's budget inflated under Carter and Reagan and the team was expanded to over a hundred, partnering with DARPA to reverse engineer new technologies from anything that looked as though it had crash landed from space.¹⁸ Every report of a UFO sighting was investigated thoroughly and with a growing pile of evidence, DXA outgrew its offices in Foggy Bottom and took up residence in an abandoned section of the Air Force's top secret facility at Groom Lake. Here, in the isolated Nevada desert, away from the distractions and politics of Washington, *real* work could take place.

¹⁷ Berlitz, Charles & William Moore. "The Roswell Incident: The Most Important UFO Encounter of Our Century." MJF Books, 1997. Pg. 72-74.

¹⁸ Despite its involvement with DARPA, DXA never initially collaborated on the development of Copper Canyon or Aurora; Aurora's focus was always earth-based intelligence and counterstrike, even when it became a spaceplane, and the project was kept largely compartmentalized. For its part, DARPA did utilize some of the technology it had reverse engineered from DXA's body of UFO wreckage, prompting the multiple redesigns of the Aurora and the inflated budget during the 1990s.

By the time Secretary of State Madeleine Albright offered the helm of DXA to an experienced career diplomat and spy in May of 1999, the organization knew more about what was in the air than the EPA (including the existence of Aurora), but wielded little in the way of power or influence.¹⁹ After Kennedy was assassinated in 1963, Project Blue Book and DXA ceased their monthly briefings to the president; Johnson's preoccupation with Vietnam left little time for flying saucers and strange lights. Even after the 1978 surge in public interest, Reagan only demanded annual reports from the organization and promptly disregarded anything that was not pertinent to the Soviet arms race. When Clinton took office, DXA's budget was slashed, the organization dismissed by NSA as a government expenditure to chase hoaxes with little bearing on foreign policy or national security. And within the State Department, the pronunciation of the acronym DXA had morphed from "diksah" to "dick suck", a euphemism for the division's reputation as the final resting place for wayward careers. Many a State Department employee had found themselves unexpectedly relocated to the Nevada desert to lead DXA and Secretary Albright knew full well that, statistically speaking, Jan Kurovec would last a maximum of three years before taking retirement.

But Kurovec had been largely compartmentalized throughout his career and, oblivious to the omens, saw DXA as ready for its next evolutionary step. Despite the dusty piles of presumeably alien trinkets and the reams of reports and interviews leading to nowhere, DXA showed immense promise. Here was an organization that could demand disclosure from any government entity (including the CIA) under the auspices of national security and keep its staff insulated from the drama of Washington; no lobbyists would come knocking on the door of the Goom Lake compound.

Armed with knowledge of Aurora's spacefaring capabilities and a body of evidential history that would make any museum curator swoon, Jan Kurovec met with the DXA team in

¹⁹ Ironically, it was DXA who would investigate a series of strange sonic booms that took place in southern California and it was DXA who would investigate Chris Gibson's sensational story about a UFO off the coast of the UK. By 1994 or 1995, DXA had acquired full disclosure of the Aurora program from DARPA including the dates and times of test flights, sketches of the aircraft, and detailed descriptions of the sounds it was expected to make upon flyover.

September of 1999 to layout a roadmap for the next decade. Using the knowledge gained from UFO investigations, DXA would attempt something never done before: proactive contact with alien life. In an interview given to Time Magazine in 2011, Kurovec stated that at the time, “[...] it was my opinion that we should reach out. Radio signals, exploration of nearby worlds, new ways of communication using subatomic particles... The technology was there back in 2000. All we had to do was use it.”²⁰ If only he could get his hands on one of the Aurora prototypes and get advanced equipment into space... maybe a new kind of satellite that he had seen under development in the Soviet Union or a bigger, better telescope than the Hubble.

Unfortunately, Kurovec’s vision was slow getting off the ground. Under Clinton, DXA was officially considered a defense expenditure and lacked the funding necessary to draft a formal partnership with the necessary government branches. Aurora remained, for the time being, a Defense Department project and Kurovec spent most of 2000 meeting with physics experts at various research universities to inquire about quantum mechanics, communication in space, and their opinions of the stacks of literature stored in the vaults of Groom Lake. Few gave him much time. Fewer still gave him any kind of credence. DXA fared only marginally better when Bush took office in 2001, receiving a slight budget increase and a polite meeting with Condoleezza Rice, but nothing in the way of a unilateral green light.

Then came 9/11 and the public defense suddenly took precedent over everything else. Since UFOs had the potential to be terrorist plots, the monthly DXA meetings with the president resumed after a 38 year hiatus. Kurovec and his lead analyst flew back to Washington every Sunday morning for an informal 45 minute brunch with President Bush whose child-like fascination with space was curbed only by his faith in God. Then in 2003 came the big windfall: Colin Powell assigned Kurovec to oversee Aurora. In Powell’s view, Kurovec was the best possible fit to bring the project to completion. The man had lived through the nuclear terror of the Cold War, now mirrored in the War on Terror, and understood the urgency of the project. He was deeply embedded in the space program with contacts at NASA, the State Department, the CIA, and DARPA. As head of DXA, he knew what else would be flying up there with Aurora and could ensure its air superiority. And, as head of DXA, he even lived at Groom Lake where the

²⁰ Garner, Will. “Profile of a Pioneer: The Secret Life of Jan Kurovec.” Time Magazine. January, 2011. Pg. 54.

aircraft was under construction! Powell gave Kurovec an ultimatum: successful test flights and three production models within 5 years or Aurora was gone, end of story.

Perhaps it was fate, perhaps it was Secretary of State Powell giving an underworked employee some additional responsibilities. Either way, Kurovec took drastic measures to ensure Aurora's success. Not only would it be a spaceplane... it would be a deep space exploration vehicle, capable of travelling to other planets and back. The tantalizing knowledge of Aurora had now been supplanted by the project falling in his lap. Here it was! The catalyst to definitive change within DXA and, God willing, a portal to a new world order should any alien race be discovered. In the Time Magazine interview, Kurovec stated: "I cried when I watched the pictures of Neil Armstrong and Buzz Aldrin on the moon. I had been in America only a few days when the landing happened and I remember sitting at a bar, eating a hamburger, and watching with tears coming down my face. Here it was... the pinnacle of mankind's achievement. And then we didn't go back for 40 years. Pathetic."

With his fervor for space exploration driving his ambition, Aurora's evolution came to a head under Kurovec's guidance. The program had transformed from supersonic spyplane to hypersonic commercial airplane to spaceplane to something else entirely. The vehicle swelled to nearly 100 feet long, its fuselage taking on the dimensions of a small airliner. The triangular delta shape of the wings was elongated into curving chines running down the front of the craft in an homage to the SR-71 from whence the Aurora came. And two tail fins, slanted towards one another, grew from the aft area above the engine exhaust.²¹

Initially designed to be made out of titanium alloy, subsequent demands for the Aurora to take on the role of spaceplane resulted in the building material changing dramatically. Lockheed had already pioneered the metallurgical processes necessary to build Aurora with as few sheets of metal as possible. Kurovec took these a step further, meeting with the Lockheed engineering team early in 2004 to discuss redesign potential within the existing metallurgical framework. As Aurora morphed from airplane to spaceplane, it became evident that a thermal protection system

²¹ Exact dimensions of the Aurora remain, as of this writing, classified. These specifications and visual descriptions are from the interviews, research, and limited photography collected during research for this publication.

like the one on the Space Shuttle would be necessary to prevent it from burning up upon atmospheric reentry.

Lockheed's own LI-900 ceramic silica tiles were effective enough, but the Columbia disaster had thrown their durability into doubt and given the changing nature of the Aurora's mission and its potential to explore new worlds with unfamiliar atmospheric conditions, the rather delicate tiles were passed over. More durable than the tiles were the reinforced carbon-carbon leading edges on the wings and nose cone which, while expensive, provided high heat resistance and superb structural support to the Space Shuttle Orbiter. But RCC was too heavy to clad an entire ship and brittle enough to shatter upon impact from a small piece of space debris. Something else was needed, a metal skin which could withstand the heat of reentry, potential dings from space dust, and the freezing of deep space. Moreover, it had to be lightweight enough to cover the entire ship.

Lockheed turned to Special Metals for aid in developing a new material.²² The thermal protection system would have to be resistant to extreme cold, extreme heat, be lightweight enough for use in atmospheric flight, and strong enough to survive impacts. Special Metals delivered the answer after just two intense months of laboratory tests: a metallic glass matrix composite composed of chromium, tantalum, and silicon dioxide, reinforced with embedded carbon fiber. Called Inconel 817, the alloy far exceeded Lockheed's requirements, weighing about 14lbs per cubic foot (compared to RCC's 124lbs) and proving exceptionally strong, especially in tensile applications.

But with a melting point around 4000° F and with tantalum being rather rare, producing and machining Inconel 817 proved expensive and by the summer of 2004, Kurovec had to appeal to Secretary of State Powell for a budget increase. The increase was granted and by September, the keel of the first full-sized Aurora had been laid in Lockheed's Skunk Works facility at Groom Lake.

²² Special Metals developed the Inconel™ family of alloys, used in industrial applications where mechanical performance in high-heat environments is critical. Inconel X was used to create the skin of the NASA X-15.

However easy it may have been to develop the cladding for Aurora, no such luck was in store for Kurovec when it came to the most important aspect of the spaceplane: propulsion. While traditional rockets had been used for decades to propel man into space, Aurora's roots in the stealth program and potential commercial service demanded a horizontal takeoff and landing. Ramjets were initially used on the early prototypes, fitted with rocket boosters for flight once the aircraft reached the vacuum of space. Later models toyed with scramjets to enable hypersonic flight and a variety of sub-orbital propulsion systems.

When Aurora officially became a space exploration vehicle, the propulsion requirements changed overnight: the spaceplane would have to be capable of traditional atmospheric flight *and* spaceflight. Rockets alone would not suffice; a mission to Mars would take years and with the amount of money already wasted on the project, Kurovec knew that anything short of the extraordinary would derail Aurora's future. So Kurovec met with NASA Administrator Sean O'Keefe in 2003 to discuss options for the future. O'Keefe argued that both a horizontal takeoff and a mission to Mars would not be possible with traditional rockets or jet engines; their size and specific capabilities would prove inadequate in both atmospheric and deep space conditions. What was needed was a specialized engine that could operate both in terrestrial atmospheres and a vacuum while taking up less room than a rocketry system.

O'Keefe called a meeting with Kurovec and Marc G. Millis, founder of NASA's Breakthrough Propulsion Project. BPP had already ended in 2002 after six years of exhaustive research into everything from solar sails to warp drives and Millis was in the process of formalizing an extensive report for NASA that would outline a framework for the future of space travel. But Aurora only had 5 years until its budgetary deadline would finish it for good. Kurovec needed a solution immediately; any additional research and development would be funded by DXA rather than NASA's comparatively small coffers.

So Millis offered Kurovec and O'Keefe the most plausible solution he had at the time: an antimatter reactor-based drive. Antimatter, he claimed, was already available (though in extremely rare quantities) and would provide, by far, the biggest push per pound. The

engineering of such a drive would have to be done by someone else; neither NASA nor DXA had the resources necessary to create enough antimatter for a deep space mission nor did they have access to the facilities necessary for the engineering tests necessary to create the drive.

Kurovec pulled his diplomatic strings and enlisted the British defense firm BAE. While BAE's American subsidiary was already a massive defense contractor, BAE's British division had ties to CERN and could, with some help from Chicago's FermiLab, produce enough antimatter for Millis' theoretical drive. It was a huge risk... the production of antimatter was still experimental, its containment unproven, and its safety record unknown. Moreover, an antimatter reactor drive had never been built or tested. The closest theorized drive, proposed by Miguel Alcubierre, had come under intense fire from the scientific community for its implausibility due to the physics involved in Einstein's relativity and the massive energy requirements needed to move a starship forward. Alcubierre's drive, up until that point, had existed only as a series of hotly debated mathematical equations.

But Kurovec had two cards up his sleeve which, upon playing, would push Aurora over the last hurdle and into official development. The first was the wreckage of a UFO, stored deep in the dusty basement of DXA's Groom Lake compound. Recovered from a crash in Montana in 1972, little remained of its hull, but DARPA had managed to salvage engine components and a design schematic that would prove to be the final piece to the puzzle in reverse engineering a viable faster-than-light propulsion system.²³

The second was Dr. Hermann Levi, an Austrian physicist who was renowned in the scientific community for arguing against Einstein's theory of relativity, particularly time dilation. Prior to the Gliese mission, Einstein's theories suggested that the faster an object goes, the slower time progresses. For example, two clocks would both be set to the same time. One would be sent up in an orbiting spacecraft, the other would remain on earth. When the spacecraft returned, the orbiting clock was found to lag behind the earth clock by several milliseconds. The general belief was that if an astronaut travelled near the speed of light, he could complete his

²³ The design of this drive, based on alien technology, is classified as of this writing. However, the command crew of the Aurora refer to it as an "EM drive" suggesting electromagnetic technology that allows the ship to "slide" through space at high velocity.

mission in a matter of hours while several decades passed on earth. It made the prospect of faster than light space travel unappealing and impractical.

But Levi was unconvinced. His father had been a zookeeper and, barring an interest in the subject, Levi was an accomplished biologist by the time he entered college to study physics. Time dilation, he argued, was false because Einstein (and the many physicists who blindly revered his work as canon law) had overlooked biology. Time was not a universal constant... it was a perception, rooted in organic lifeforms and dependent upon organisms to bear witness to its passing. Regardless of how clocks behaved, organic beings could not perceive time as faster or slower unless their metabolic functions were somehow interrupted. Therefore, an astronaut travelling at the speed of light would not be frozen in slow motion nor would his friends on Earth perceive him to be away for decades.

Levi's arguments got him kicked out of Oxford as a student and for a time, he sought refuge as an assistant professor at MIT. But when NASA offered him the chance to test his theory on a 1998 Space Shuttle mission, his fortunes changed. Levi had concluded by that time that the clocks which had so ubiquitously "proven" time dialation were meant to function in a gravity based environment. After all, they were designed and engineered and manufactured on Earth. Of course space travel in a zero G environment would throw them off a little. Even travelling on airplanes would affect them. But what about life forms? Were physicists really ready to admit that astronauts and career pilots were somehow younger than their counterparts on Earth because time was passing slower when they accelerated to high speed?

Levi had devised an experiment to test his hypotheses. He would track the rate of growth of bacteria in a petri dish. One would remain in his office at MIT while the other would accompany him up in the shuttle for the weeklong mission.²⁴ When Endeavour returned to Earth a week later, the bacteria had grown at exactly the same rate, despite the shuttle's clocks lagging by a milisecond or two. His findings hit the scientific community like a tectonic plate and Levi was immediately offered a position at Cal Tech teaching quantum theory. He took the position in

²⁴ To ensure both colonies of bacteria experienced identical rates of gravity, the dish Levi took into space was placed in a centrifuge which gradually spun faster as the shuttle distanced itself from Earth. This way, the bacteria would be in a constant gravitational environment, rather than experiencing weightlessness.

1999 and a year later, met Jan Kurovec who was scouting for scientists for insight into DXA's inventory of alien relics.

When Kurovec initiated another talent search in 2003 after being handed Aurora, Levi was one of the few physicists who gave credence to the spaceplane's necessity to travel faster than light. Levi was brought onboard that year along with several members of BAE's antimatter development team and at least twelve engineers from DARPA to reverse engineer a propulsion system from the crashed spacecraft at Groom Lake.

In March of 2007, the engine was ready and in April, it was fitted into the completed Aurora hull. The first test flight of the final version of Aurora took place either in June or July of that year, but Kurovec, eager to preserve his own job, ran exhaustive tests and "what if" scenarios during most of 2008. Actual space missions did not commence until 2009, 28 years after the conception of Aurora.

By that time, the nation was in the grips of the worst economic crisis since the Great Depression and Kurovec again found himself at a loss for funding. The government simply could not keep up with the skyrocketing costs of research & development and Aurora faced either a mass exodus of talent if DXA couldn't pay the salaries of the program engineers or a total shutdown. Knowing that it was useless to lobby the government for cashflow when the Obama administration was already talking about austerity measures, Kurovec went shopping for a new sponsor.

Lockheed was already in deep. So was BAE. And neither company would allow another defense contractor to participate in the program; the exclusivity clauses of their contracts were quite specific and Kurovec knew better than to tempt a lawsuit. No, any new contractor would have to be from outside the defense community and have a limited, but vital interest in the success of Aurora. They would also have to possess massive amounts of venture capital.

And so in the fall of 2009, Kurovec held a meeting with the board of directors of OriGen, a California based biotech firm specializing in stem cell research. At the meeting he made a far-reaching, critical agreement with the company: in exchange for nearly \$9 billion in direct capital needed to complete Aurora, OriGen would have exclusive rights to any extraterrestrial DNA, protein sequences, or amino acids discovered on any mission during which the spacecraft was

used. Exclusivity would run for 10 years with the option to extend another 5 at the end of year eight.

Aurora would survive, though in exactly what capacity remained to be seen.

Ollie McCormack is fifty-two, overweight, and has chewed tobacco for so many years that his teeth are stained brown and his gums are a dying white-pink. His beer belly presses against the cracked plastic steering wheel through the blue and brown plaid shirt he wears as the little red Toyota truck speeds through the driving rain.

“Over there’s the old Harper place... I think it’s a meth lab now,” he says, pointing at a dilapidated old trailer and taking his eyes off the road. There are papers and yellow carbon copies littering his dash. A Krispy Kreme coffee cup rolls around at his feet. He wears thick glasses and his wiry gray hair is covered by an old baseball cap that reads “Florida” across the white foam rubber front. The rear of the cap is blue plastic mesh.

The Toyota groans as he downshifts and steps on the accelerator through a turn. Green whizzes by outside with the occasional flash of orange and yellow. Deciduous trees mixed in with conifers.

It’s mid-October and State Route 104 is an especially beautiful drive from Kingston to Port Gamble. Ollie’s reference to the meth lab is the norm for rural Washington; an hour in any direction from Seattle and the people become noticeably provincial, the way of life disastrously slow, and the pastimes more destructive. And the Kitsap Peninsula, despite all its charms, is not immune to this phenomenon.

“Here we are.”

Port Gamble is a slow spot in the road that was once the site of a 19th century battle between the USS Massachusetts and several tribes of Indians who had been sailing southward into Puget Sound to enslave members of rival tribes. Today, the town is on the National Register of Historic Places and as the speed limits slows from 50 to 30, so does time. The 1900s farmhouses are meticulously maintained with fresh red and white paint, carved wooden arches on the verandas, lace curtains in the windows. Gas streetlamps line the sidewalks and the manicured lawns are a vibrant green.

But the most striking thing about Port Gamble is the trees. Seasons in western Washington are always green because of the overabundance of douglas firs that blanket the Puget

Sound region. But in fall, the landscape bursts with color for a few precious weeks. Port Gamble capitalizes on this with liquid amber maples on every street and as the Toyota slows down, bright stars of yellow, orange, and red plaster themselves to the windshield under the driving rain. The windshield wipers are old and they stutter over the leaves.

The truck rounds a ninety degree turn and Ollie pulls it to a stop on a smaller side street in front of a one story burgundy farmhouse with a sprawling whitewashed porch. A silver Chrysler is parked in the gravel driveway and flower beds surround the base of the porch. It would look stunning in spring.

“This is the Ridgewood place,” he says, opening a can of mint Skoal and shoving a wadded up dip into the pocket between his teeth and lower lip with yellowed fingers. “Damned shame about Paul. I gotta head back to Kingston and try to catch that 3:10 ferry to Edmonds... They upgraded the ships, you know. The old *Walla Walla* and *Spokane* that used to be on the big runs to Bainbridge... They replaced them with super jumbos now and we got them as hand me downs. Made the run faster and now the whole schedule is screwed up.”

He rolls his window down far enough to stick his chin over the top and spit. The rain drags drips of brown down the glass as he rolls it back up.

“You know, Paul and Beth were about the two nicest people you could ever meet.” He shakes his head. “Just a damned shame.”

The farmhouse is still and quiet amid the rain as Ollie backs his truck out of the gravel driveway and speeds off, the rear tires of the Toyota screeching.

“I can’t stand that man.”

Beth leans against one of the spindly posts that holds up the roof over the veranda. She is reasonably beautiful, despite Paul’s death wearing on her, and it is obvious she still has plenty of time to start over.

“I don’t think I’ll ever remarry. Not sure if I’ll ever really get over Paul either, God help me. And as for kids...” She laughs a little, her eyes lighting up. “Aaron was more than enough.”

A whistling sound comes from inside the house and Beth tightens the bulky gray wool cableknit sweater around her curvy frame.

“Tea’s ready.”

Beth is one of those people who comes across poorly to those who don't know her. She is well spoken, educated, dresses sensibly, and has impeccable taste. But with her bluntness, she can lack tact and her good looks in a small town like Port Gamble can easily spark jealousy among other women. And with good reason: Beth broke up Paul Ridgewood's marriage.

It would be unfair to say she did it singlehandedly; Paul's first wife, Shelly, was a drug addict. In the early 80s when Shelly and Paul met, pot was the extent of her drug use and she had been a beautiful girl with long gold hair and fine features. Paul was an ex-Vietnam vet who had moved to Port Gamble to work as a contractor for the naval shipyard in Bremerton repairing and retrofitting the nuclear reactors.

Their marriage was initially very happy and Shelly was sober long enough to have Aaron in 1984. But after Aaron's birth, she began using again.

"Paul always said it was because of the stress of being a mom." Beth pours some hot water from a stainless steel kettle into two mugs and drops a bag of green tea into each. "I can imagine it's difficult," she says, putting the kettle back on the stove and clicking off the burner. "But so hard that you'd turn to drugs? I mean, your baby is crying... That means you need to check on it, not smoke meth. I don't know why of all the drugs out there she got addicted to that one."²⁵

She sits down in the breakfast nook, easing against the wooden bench seats.

"Every time I saw her, she looked terrible. Jittery, moving a million miles an hour, completely unfocused... Sores on her face, teeth falling out..." Beth motions to her cheek with her fingers. "It was disgusting."

But despite Shelly's problem, Washington state law almost always sides with the mother in a divorce. By 1994, Paul was working longer and longer hours at the shipyard to avoid coming home to the disaster of an unruly 10 year old and a wife who, despite his repeated pleas, wouldn't clean herself up.

²⁵ A 2005 report by the NDIC showed that Washington had lower methamphetamine prices than any other state due to widespread availability. The drug comes primarily from California and Canada via Interstate 5, but Washington also has exponentially more meth labs per capita than Alaska, Oregon, and Idaho combined. A 2005 study by the Washington State governor's office revealed that over 90% of law enforcement jurisdictions in Washington (including state, local, and federal) cite crystal meth as the single largest threat to the safety and security of communities.

That's when Beth entered the picture, a twenty year old logger's daughter from the Pacific coast, on her way to Seattle to seek her fortune.

"I was passing through. Literally. I had a ferry to catch and I was going to Seattle to try something new... Maybe go to college, get a new job, I don't know what." She laughs a little and her face glows. "But I never made it. I stopped at that little French place down the road for lunch and Paul was sitting there, staring at his coffee cup. It was part of God's plan."

Paul & Beth's whirlwind romance rocked Port Gamble to the core and the tiny town quickly spread the gossip that Paul was finally going to leave his wife. But the outrage was minimal. In fact, any man would have done the same... Compared to the dirty blonde, smoked-out shell of a woman that was Shelly, Beth was positively a goddess, fresh and young and pink and with a good head on her shoulders. The divorce went through, Shelly retained custody of Aaron, and the next year, mother and son moved to Federal Way, almost two hours to the southeast and hotbed of trailer parks, bland suburban housing tracts, and Russian mafia.

The nail in the coffin, though, was not the divorce. Rather, what destroyed Aaron's relationship with his father was his new stepmother.

"That was tough. For both of us," says Beth, nodding as she stares blankly out the window into the rain. "I was 20... Maybe 21 and here is this kid who's almost a teenager and hates me for no reason other than I'm not his mom.

"But I didn't sign up for motherhood with Paul... Wait, let me rephrase that... I'm not sure how to put it. I mean, I didn't know he had a kid when I met him and I certainly wouldn't have given him the time of day if he had said he was married with a kid. But he didn't tell me all that until after we'd been seeing each other for a few weeks and honestly, at the time, it seemed like a worthwhile sacrifice because I liked him a lot. I mean, the Lord puts adversity in our lives to test us and I think that was my first real test as a grown woman."

But what seemed a worthwhile sacrifice at the time quickly turned to a living hell for both Aaron and Beth.

"Paul got him on the weekends and then he'd come to stay for a few months during the summer." Beth pushes her brown hair out of her face. "I tried... I really did try, but... I made mistakes. I mean, kids don't come with instruction manuals." She pauses, thinking. "I prayed a lot. Asked God for help in being a positive influence. But Aaron never forgave his dad for leaving him with Shelly. He used to throw tantrums and break stuff all the time."

And for good reason. Aaron's upbringing with Shelly was, for all intents and purposes, a disaster. Where Paul had been a steady hand and a reliable source of income despite Shelly's addiction, Shelly all by herself was strayed and inconsistent.

Jobless and living on alimony and welfare, Shelly whored herself out for drugs and her various johns would make their rounds to the tiny, avocado green and white double-wide with the Astroturf porch. As her addiction worsened, she would forget to pick up Aaron from school. More than once, she forgot to pick him up at the ferry terminal after he had spent a weekend with his dad and the boy would end up sitting up in the control office with the dockmaster, waiting for his mother to drag herself in and claim him.

Aaron initially focused on school as an escape mechanism from his tattered home life and, when D.A.R.E. began during his 5th grade year, he bought the philosophy wholeheartedly.²⁶ The police officer in his classroom had been so convincing that Aaron decided his mother could use some of the same education. And so upon arriving home one afternoon and finding himself alone, he went on a cleaning spree.

His efforts were met with a furious Shelly when she arrived home with a john to find her stash gone, every bottle of booze emptied into the sink, and all of her Camel Lights heaped in the garbage can. Shelly screamed at the top of her lungs and searched the house frantically for her bag of T... in vain since Aaron had flushed the little crystals down the toilet.

But Shelly's john was having none of it. He dragged Aaron into the kitchen, threatened to grind his arm off in the garbage disposal, then thought better of it and snatched an empty bottle of Skyy from the sink and smashed it over the boy's head when he wouldn't cooperate. Aaron immediately crumpled to the floor in a pool of blood and broken glass and when Shelly saw him

²⁶ Implemented during the Reagan administration's War on Drugs, Drug Abuse Resistance Education, or D.A.R.E., is the most widely implemented, heavily funded anti-drug campaign in the United States and the UK. It is aimed primarily at children, ages 10-12, and aims to prevent youthful experimentation with drugs through a 17 week curriculum. The D.A.R.E. ideology is one of "just say no" with the organization arguing that marijuana is a "gateway drug" whose allure could lead to a life of addiction to more dangerous substances. The program is not without its critics who cite scare tactics as a method involved in an "indoctrination-like" process. There have also been several notable examples of children used as informants, accusing their parents of drug use and thereby sending mom and dad to jail. Despite the program's best intentions, in 2001 the D.A.R.E. program was labeled as "Does Not Work" by the Surgeon General (<http://www.surgeongeneral.gov/library/youthviolence/chapter5/sec4.html>). Its curriculum was subsequently reevaluated and the program has undergone a radical decade-long expansion to improve its efficacy.

lying in her kitchen, her would-be boyfriend screaming at his unconscious body, she snapped. She grabbed a baseball bat from her closet and beat the shit out of the man, leaving him unconscious on the floor next to her son. In a moment of clarity despite her meth-induced rage, she wrapped Aaron's head in a towel, shoved him into her dented Oldsmobile Achieva, and drove him to the hospital.

Luck has a funny way of watching out for the people who need it most and in Aaron's case, the surgeon on duty that night had been a medic in his father's unit back in Vietnam. He recognized the boy's name and made each of the 214 stitches as small as he could before calling Paul to tell him what had happened.

Paul was understandably livid and when he arrived at the hospital, the police were already talking to Shelly who had sobered considerably in the waiting room. They wanted to know how Aaron had "fallen", why the glass fragments were blue instead of clear, and why the boy had never been in for a physical or any vaccines in the past two years.

Shelly lost custody of Aaron that day. In her appearance before the judge, she pleaded to have one more shot at raising him, pointing out that Paul still had left her for another woman and that Aaron was doing exceptionally well in school. That meant she was a good mother by default, right?

But two charges of felony possession and a string a misdemeanors going back to 1979 didn't bode well for her. The judge ordered her into a rehab program and turned the 11 year old Aaron over to his father and stepmother.

"I convinced Paul to send him to Living Grace."²⁷ Beth is quiet for a moment. "I thought I was doing the right thing. I mean, Jesus has done sooooo much for me in my life and I truly wanted Aaron to experience the same thing. And I thought it would give Paul and me a chance to live our lives without... well without Shelly at least. And it was a much better environment than I could have ever provided."

²⁷ Living Grace Academy is a Christian boarding school for boys located on a 5,000 acre cattle ranch in Seneca, Oregon, specializing in teens who have troubled relationships with their families or substance abuse issues. While their educational program offers a full high school diploma to graduates, students at LGA are required to assist in the daily duties of the ranch as part of tuition.

Aaron remained at Living Grace Academy for seven years until he graduated, returning home for a few days at Christmas and for one week each summer. So thorough was the turnaround in his behavior that Paul was shocked each time his son returned home to visit.

“I remember he said to me how disciplined he thought Aaron was. I mean, they turned him into an adult within six months. No more temper tantrums, no more crying, just... a sweet, docile kid with Christ in his heart. He used to like leading us in prayer before dinner. And when he was 15, he told me he wanted to be a pastor...”

She stops for a moment, tears welling up behind her beautiful eyes.

“I was so proud. I mean, you can’t understand how powerful faith is unless you live it and for him to... to confirm that the change was good... that he had accepted Jesus Christ as his lord and savior...” She wipes her eyes. “It was the first time I actually felt like I was a good mom.”

She stands and goes over to the stove to refill her cup with steaming hot water. As she turns, she dunks the tea bag over and over again.

“I think Gliese and the whole thing with the Keldar was just a big test for him. God’s way of challenging him in his young adult life.”

Florence, Colorado, like Denver 90 miles to the north, sits on a mile-high high plain, nestled between two arms of the eastern Rockies in Fremont County. It's dry, with a semi-arid climate and cold, windy winters that howl through the town. There is nothing remarkable about it per se... two state highways, 115 and 67, intersect in the town and I-50 bypasses it to the north. Canon City, a much more popular destination, sits a few miles to the west.

In fact, no one would really know anything about Florence if it wasn't for the penitentiaries located there. In 1994, Fremont County contained nine prisons. The tenth, built at the end of that year, is known as ADX Florence. It is, as of the writing, the only federal SuperMax penitentiary in the United States.²⁸ Built in response to two murders which occurred at the US Penitentiary in Marion, Illinois a decade earlier, ADX Florence is part of a larger Federal Correctional Facility with satellite prisons of varying security levels.

It houses nearly 500 inmates, each contained in a concrete cell with only a four inch wide slit for a window running horizontally along the roofline. The windows allow a view only of the sky and the eaves, preventing inmates from viewing their surroundings and thereby knowing where they are. Even the aerial view of the prison is airbrushed out of Google Maps, lest an inmate somehow acquire a rudimentary layout of the building.

The chairs and beds in the cells are made of poured concrete to prevent any weapons from being fashioned. Food is delivered through a slot in the door, much like medieval prisons. Inmates are usually prevented from seeing or speaking to one another through an elaborate system of soundproofing, insulation, and tightly scheduled hour-long breaks spent outside the cells. The metal detectors, walls within walls, and security checkpoints provide a sense of the most dense, absolute security known to man. Even the outdoor recreation areas have cable nets over them so that, as Warden Ron Wiley says, "helicopter escapes cannot occur."

²⁸ The term "SuperMax" is used to denote a prison with maximum security above the level of a normal state or federal prison. It is typically used for the worst criminal offenders who are awaiting execution or can never be allowed any reentry into normal society. While ADX is the only federal SuperMax, there are some 30 other state SuperMax facilities in the United States run by state and local governments.

It is, in the plainest terms, the closest thing to a hell in America. Only the most dangerous criminals society has to offer are housed there, namely those who present a risk to the national security of the United States. The conditions of isolation have triggered four suicides since 1994 and force-feedings are common as many inmates initiate hunger strikes.²⁹

Until 2010, ADX Florence housed only male inmates. But the first female inmate now resides in a somewhat isolated wing of the facility. Lt. Commander Laura Christensen, in an orange jumpsuit, her hair pulled back into a sensible (and searchable) ponytail, sits on a metal chair at a wooden table, precious commodities in this place.

“It’s because I’m not an escape risk,” she says. “They basically had to clean out one of the storage rooms for me. Don’t know why they couldn’t have just sent me to Mirimar.”

She taps her nails on the table and rolls her eyes. She is fair, efficient-looking, and has a bearing about her that is nothing short of disarming. Laura grew up in a religious family, ironically in Denver. In high school, she was on the cheer squad and took AP math courses. But after two years of college, she enlisted in the Navy.

“It was a backlash against my parents,” she says. “They wanted me to do girly things... Be a cheerleader, major in English lit, get married, go to church. Fuck that. I wanted to do something with my life. So I enlisted.” She grins, her brown eyes excited. “I finished my degree online and after a few years, went to OCS and came out an ensign with a special focus in logistics. That’s more or less how I got involved with the Gliese missions.”

In fact, Christensen’s military career prior to her involvement with Aurora had been rather remarkable. She sits back in the chair, crossing her legs and folding her hands over her knee. She is not handcuffed, just some shackles on her ankles, and she’s wearing a pair of beat up Nikes rather than the special booties normally allotted to inmates at Florence.

“I spent two tours in Afghanistan working with Naval Special Warfare Command. I was an operations officer... Organized convoys, planned their routes, analyzed data from the field. Basically it was to see if it’d be possible to move our guys into certain areas... Um... Marines want

²⁹ Several human rights groups and a series of lawsuits have argued that SuperMax prisons violate constitutional rights through their isolationist methods, namely by inflicting cruel and unusual punishment. 1996 Olympic bomber Eric Rudolph claims that ADX Florence is designed to make inmates go insane. And in 2005, inmates in an Ohio SuperMax won a lawsuit arguing that prisoners could not be placed in isolation until they had exercised their right to an appeal.

to push into X valley, so they need a tactical assesment. That sort of thing. I was always behind the scenes until '05."

October 5, 2005

Kunar Province, Afghanistan

1405 hours, local time

“Delphi this is Rattlesnake, over.” Christensen was holding the radio and attempting to steer her truck through a large mud puddle. The convoy was only five vehicles, but the 23rd Marine Expeditionary Unit needed supplies badly enough that Naval Special Warfare Command had authorized a short caravan to head northwest and deliver munitions into hostile territory. Normally, women were not allowed on missions this deep into Taliban-held territory, but Christensen was an experienced operations and logistics officer and the intelligence gathered in the weeks preceeding the mission indicated that the Taliban were focused elsewhere. It would be a good change of pace for her to get away from base and she had volunteered to drive.

“Rattlesnake, this is Delphi, we have your position. What’s the scenery like, Laura?” Christensen’s friend, Sam Cortright, was a Marine working out of Forward Operating Base in Naray.

“It’s green,” she said smiling. “When they say they’re sending you to Afghanistan, you always think desert, but this is something else...”

And it was. Kunar Province is known as some of the most ruggedly beautiful country in all of Asia with grassy plains, tree-lined creeks, and steep, jagged peaks that sharply divide the territory from the desert around it.

The convoy wound its way up a ridge, aiming for a narrow pass at the top from which point they would head down into the valley on the other side and drop off munitions, food, and medical supplies to the 23rd MEU, codenamed Jehovah.

“Reminds me of Colorado sometimes.” She turned to the Army corporal seated next to her. “Want to say hello to Cortright?”

“What’s up Sam?”

The radio crackled. “Hersch, how’s the neighborhood?”

“Shit, man... Another beautiful day. Trees, grass, mountains, and not a fucking haji in si-”

The glass windshield shattered as the brown truck ahead of them burst into flames, flipping up and over onto its side, black smoke pouring up into the sky.

“Shit!”

The pop pop pop of gunfire echoed off the mountainsides as Laura looked to the trees to see where the attack was coming from. She snatched the radio.

“Delphi this is Rattlesnake, we are under attack, repeat: WE ARE UNDER ATTACK.”

Sam’s tone instantly changed on the radio. “Copy that, Rattlesnake. Please apprise your situation, over.”

“We’ve got a truck that’s been bombed and we’re under fire from both sides of the road.” A bullet ricocheted through the front window and into the back of the truck. The gunner behind them on top of the truck opened fire and a deafening roar filled the cabin. “Shit get down!” she yelled to Hersch, yanking him down into the footwells.

The gunner suddenly dropped into the cabin, blood pouring from his shoulder.

“Fuck! God dammit...” Christensen pulled his ankles and dragged him down onto the seat, his helmet smacking against the metal frame of the turret as he slid into the cabin. “Get the first aid kit... It’s under your seat,” she yelled to Hersch. She turned to the wounded gunner. “How many are there?”

His eyes were wide in shock, his hand clasp at the bleeding hole in the upper part of his chest. “I think... I... I think about eight... ten... each side.” The bullet had gone through his body armor. “Armor piercing...”

“Yeah yeah yeah... I want you to breathe easy, don’t panic.” She picked up the radio again. “Delphi we need air support now... I have wounded!” The radio buzzed and she flicked the dial on the side to adjust frequencies as the firefight intensified.

A man’s voice crackled on. “Under heavy fire, repeat, we are under heavy fire! Request immediate air support! Do you copy?”

Sam again. “Copy that Jehovah. What is your position?”

“We are in rendezvous range with Rattlesnake, north by northwest six degrees.”

Laura felt for the steering wheel and slowly peered up and over the front of the dash. She could make out the ridgeline ahead of her, the pass they were supposed to go through, and then meet the 23rd on the other side. There was smoke in the distance... the convoy and the 23rd had been ambushed simultaneously.

She looked back at the gunner. Blood was trickling out of his mouth. She snatched some gauze from Hersch and mashed it on his shoulder. "Keep pressure here, corporal." She turned back to the gunner. "I want you to listen to me very carefully."

The truck behind them ignited, its driver and gunner, leaping from the cabin to the ground and ducking for cover in the grass as the flames illuminated the clearing.

"Shit!" The roar intensified, filling their ears with a hot pain and shifting the air around them. "OK, listen to me. The bullet has hit the upper part of your lung. That's why there's blood coming out of your mouth.

"Oh... God..." His eyes closed tightly.

"You have to take slow, easy breaths and not panic, otherwise your lungs will fill with blood and you *will* drown. Do you understand me?"

He grit his teeth as Hersch pushed down hard on the gauze.

"Do you understand?! You can survive this, but you have to keep calm."

"Yes, ma'am."

"Alright. Jehovah this is Rattlesnake, we are under fire. Can you assist?"

"Negative, Rattlesnake... We are pinned down, repeat: we are pinned down. Hajis are in the pass."

The door to the truck opened and the gunner from the truck behind them waved them down into the tall grass. "Get out!" yelled the Marine.

Christensen looked back at her own gunner. "Come on... We're getting out of this tin can." She shoved him along the seat, his body draping down into the grass where the other gunner caught him and began pulling.

"Jehovah, this is Delphi, hawks are on their way. Hold your position. Rattlesnake what is your status?"

The man over the ridge was frantic on the radio. "There won't be a position left to hold! Rattlesnake, do you read?"

Christensen shoved Hersch out the door behind her and stayed crouched in the footwell, the radio on her shoulder pressed to her ear.

The gunner looked at her from the grass. "Come on!"

She shook her head. "This is Rattlesnake, go ahead."

"Can you assist?"

"Jehovah we are under fire..." She looked back at the Marine. "You a good shot, sergeant?"

"Yes, ma'am, but we need to get to the trees and find cov-"

"Jehovah, this is Rattlesnake, standby. We are closing on your position."

"What?! We can't do that..." The Marine looked at her in disbelief.

"Help get his body armor off," she said, motioning to the wounded gunner.

He hesitated.

Laura gripped the front of his vest. "Hey! The CO was in that truck ahead of us, so I'm guessing he's dead. Now you might be a sergeant and a Marine, but I'm a lieutenant and that means I outrank you."

"But ma'am, you're not allowed to-" He caught her glare full on and instantly knew he had offended her. "Yes, ma'am." He began unbuckling the man's armor.

"Hersch, patch him up, keep him awake, easy breaths. Got it?"

"Yeah."

She looked back at the Marine and the name stitched across his chestplate. "Sergeant Sorenson. We have anything left? Vehicles I mean?"

More pop pop pop as the LAV heading up the convoy returned fire into the thicket of trees that surrounded the road ahead into the pass.

"There's a LAV up front, this truck, and I think the Hummer at the rear is still good."

She peered up and over the dash again and glimpsed a figure disappearing into the trees, heading for the pass.

"Delphi, this is Rattlesnake, what's the ETA on those hawks?"

“Eight minutes, over.”

“Copy that.”

The man’s voice was there again, shouting, and Laura could hear the hail of gunfire echoing through the radio. “Delphi this is Jehovah, we won’t last that long!”

Christensen frowned and snatched the mic from her shoulder. “God dammit, don’t get your panties in a knot! We’re on our way!” She turned to Sorenson. “We’re gonna go get in that Hummer, I’m driving, you’re shooting.” She pinched a button on the mic. “Smith, you still mobile in your LAV?”

It crackled for a moment. “Yes, proceeding on pursuit course.”

“Negative, Smith, repeat: do not pursue. I want you back here in this field... you and Hersch keep the wounded between my truck and the woods. Air support is on its way.”

“Yes, ma’am, on my way.”

She turned to Sorenson. “You ready?”

He flipped his goggles down over his eyes. “Let’s go.”

They made a mad dash for the rear of the truck. Laura popped down the tailgate and heaved out a large metal box of grenades, dragging it behind her as they ran past the flaming third truck and towards the Humvee which was idling on the road. The driver and gunner were already gone, joining the rest of the survivors in the grass and returning gunfire into the woods.

The sergent crawled up the sloping back of the Humvee and dropped himself into the turret while Christensen felt for the seat adjust and pulled it forward so she could reach the pedals more easily. She took a moment to adjust her driver’s side mirror, then stepped on the accelerator and pulled to the left of the convoy, out into the open field. She passed the LAV on her way and leaned over to shout at them through the passenger window.

“Smith! Hey! Smith! Whatever you do, stay here. Try to keep that truck from getting blown up!”

“I’m on it!”

She floored the gas again and careened back onto the road. Up ahead in the thicket of trees, she saw flashes of people running through the brush. “Hajis, dead ahead!” she shouted to Sorenson. “Hold on!”

She sped up as he opened fire into the woods on either side of the road, the pass less than a half mile away.

“Rattlesnake, this is Delphi, what is your position? You’re moving.”

Laura had forgotten the GPS unit embedded in her radio. “I’m closing on Jehovah.”

“Negative, Rattlesnake, hold your position. Repeat: hold your position.”

“Negative, Sam. Hawks will have nothing left. We are assisting Jehovah, repeat: we are assisting Jehovah.”

A man emerged from the woods, aiming a rifle at the Humvee and opening fire before turning and running up the road. Laura reached back and grabbed Sorenson’s pant leg, tugging him down into the turret as she ducked her head behind the steering wheel and closed her eyes for a moment.

There was a sickening thump-thump and she ran over the man with the right front wheel. She opened her eyes again. The top of the pass was ahead, a wide spot in the road and then it was down down down into the valley below. Nine Afghans were there, clustered on either side of the road and firing into the valley, their backs turned to Christensen’s Hummer as she sped towards them. She fumbled with the metal box on the seat next to her, prying it open and feeling for a grenade. She passed it up to Sorenson and watched, several seconds later, as it hurtled into the midst of the cluster on the right and exploded into a ball of flames and tree leaves.

More gunfire, shell casings pouring down the turret into the cabin of the Humvee and scalding her arm. The radio was chattering insistently as she watched the other cluster of men turn around, realize what was happening, and then scatter, falling flat in the dirt and grass as Sorenson fires more shots.

She stopped the Humvee at the top of the pass where she could see the MEU now, pinned down in a narrow ravine in the valley, grassy slopes and scattered trees raking sharply up the sides of the mountains. She could also see the hajis, scurrying around between bushes and rocks, armed with machine guns, uzis, bolt action rifles... And she could hear the faint thud thud thud thud thud of helicopters approaching from the southeast... Air support.

She felt a boot nudge her shoulder and she looked back and up to Sorenson. He pointed to a cluster of men who were piecing together what looked like a small rocket launcher. She recognized it immediately-

“Rattlesnake to Delphi, recall the hawks, recall the hawks, they’ve got SAMs, repeat: they’ve got SAMs! Do you copy?”

“Copy that, Rattlesnake. Jehovah, do you copy?”

“Copy that, Delphi. Rattlesnake, can you neutralize? We are low on ammunition.”

Laura noticed movement out of the corner of her eye, dangerously close to the truck in the rearview mirror.

“Repeat: we are low on ammunition, do you copy?”

She looked again, watching the leaves rustle and listening over the engine of the Humvee, the popping from the valley ahead of her, and her own breathing as the footsteps fell in the soft grass.

“Rattlesnake, do you copy?!”

In an instant, she flung the door open, drew her gun and fired two rounds into the bushes behind the truck. The rustling stopped and a teenaged boy fell through the brush, his rifle clattering as it hit the road.

She stared for a minute, her breath caught in her chest.

“Copy, Jehovah, we’re on it.”

The words had barely left her mouth when Sorenson opened fire on the distant group of insurgents, watching them collapse to the ground as more shell casings scattered into the cabin.

“Delphi, commence the hawks. SAMs are neutralized,” she said into the radio. The thud thud of the helicopters returned and it was suddenly hard to stay awake, light headedness washing over her. She looked down and realized she had been shot in the thigh.

Laura Christensen earned a purple heart and a bronze star that day in October for valor and heroism far outshining her rank.

“We only lost three... The CO and his gunner in the truck ahead of mine and one of the Marines in the 23rd. They wouldn’t offer me a combat command, but they did give me a

promotion a few months later. When my tour ended, Kurovec came and found me. He said he needed an officer to lead the Aurora team and since it wasn't a combat post, I was able to take it without resigning my commission."

She shifts slightly, looking down again as her eyes narrow and lips turn downward. "And when he asked for a tactical officer, I recommended Sorenson."

Gliese 581 is a red dwarf star approximately 20.3 light years from Earth. It is not unlike other stars of its category: about a third the size of the Sun, giving off less than 2% of the energy, and with a much lower gravitational pull. Aside from it being the brightest star in the Libra constellation, it's unremarkable.

What makes Gliese interesting is the planets surrounding it. Gliese 581b was discovered in 2005, a massive planet whose close proximity to its star resulted in an orbital year of less than six days. Then in 2007 came the discovery of 581c whose distance from the star put it in Gliese's "habitable zone". That is to say, located within that orbital sweet spot, neither too hot nor too cold, that is capable of supporting life.³⁰ This was, at the time, the closest extrasolar planet to Earth in such a zone and deemed likely to contain life.

Later that year, Gliese 581d was discovered, further into the habitable zone than it's sister, 581c. Then followed 581e, Gliese's Mercury, following a close orbit of the star. And finally in 2010, 581g which, though unconfirmed at the time, was thought to be smack in the middle of the star's habitable zone.

While astronomers were in a frenzy, speculating what colonies would look like or how long it would take to reach the planets, others took a more direct approach. In October of 2008, the members of Bebo, a social networking site owned by AOL, sent a radio message to Gliese 581 using a massive radiotelescope located in Yevpatoria, Ukraine. The transmission, entitled "A Message From Earth", contained over 500 text messages and pictures selected by the members of Bebo and was digitally beamed using an ultra-high frequency radio wave that travelled at light speed. It was expected to reach Gliese 581d no later than 2029.

Bebo's message, while open source and publically controlled, was by no means the first interstellar transmission from Earth aimed at attracting aliens on potentially habitable worlds. As early as 1974, a digital transmission containing nucleotide sequences of DNA, graphical representations of humans and our solar system, and various mathematical equations was sent to a distant cluster of stars known as M13. Presently known as the Arecibo message, its intent was

³⁰ It was later concluded that a runaway greenhouse effect, similar to that of Venus, had taken place on Gliese 581c.

not to make contact, but to demonstrate the capabilities of the newly installed Arecibo radio telescope, later made famous in the James Bond film *Goldeneye*.³¹

And before that, etched aluminum plaques were attached to Pioneers 10 and 11 in the hopes that if aliens found the spacecraft, they would have a graphical representation of what humans looked like and a rudimentary map of our solar system. Voyagers 1 and 2, launched in 1977, both contained gold plated discs that, if discovered by a race of advanced aliens, could reproduce images from Earth as well as a sounds, spoken messages, and selected musical compositions.

But Bebo's transmission was unique in that, rather than simply aiming a telescope at a random star and hoping for a reply thousands of years later, the message was sent to a planet with a high likelihood of life. Moreover, it contained a popular message drafted by consensus rather than one devised by a scientific thinktank of engineers and astronomers. What the users of Bebo didn't know (and what made their transmission extraordinary beyond all others) was that their message arrived in Gliese a mere 26 days after it was sent.

The reasons for this are still unclear. The best guess, postulated by a research team working at the Very Large Array, is that the radio waves from Yevpatoria passed directly into the path of a previously undiscovered star, Turner 611.³² Turner 611 had been undiscovered for one simple reason: it was dead. Barring some kind of cosmic disaster, stars have one of two ways to die after they go supernova: either they turn into a black hole or they gradually burn out after becoming a dwarf. Turner took the latter route and became a burnt out ball of matter with relatively little gravity and no emissions of light, a black rock in deep space with no planets or radio signature. Instead, it emitted tachyons, subatomic particles capable of moving well beyond light speed and passing through all known matter. The radio waves in Bebo's message reached Turner 611 about three days after leaving Earth and were accelerated by the tachyon particles at ultra high speed towards their intended destination.

³¹ <http://www.news.cornell.edu/releases/Nov99/Arecibo.message.ws.html>

³² The Very Large Array is a collection of 27 massive radio telescopes in the New Mexico desert outside Socorro. While initially intended to provide new insight into galactic stellar formations, it was later reconfigured into a communications system.

Tachyons at the time were still theoretical, the idea of them latching onto a radio wave unprecedented. Tachyons had been conjectured in the subatomic physics community for years, but neither CERN nor FermiLab had ever produced or witnessed them, even in their massive particle accelerators. It was not until another component of the UFO stored deep in the vaults of Groom Lake was fitted into Aurora that their existence was even confirmed. The device, a dish three feet across and made of the rare metal scandium, had been outfitted to the original vessel's outer hull, embedded in the upper fuselage. Kurovec himself had found that when power was run through the dish, a screaming noise was barely audible.

Assuming it might be necessary for the other salvaged engine components to function, Kurovec ordered it installed into the Aurora in early 2008 before any deep space test flights had been conducted. Test flights out to the edge of Earth's solar system and back commenced in 2009 and that was when Dr. Levi, upon analysis of the ship when it had returned, noticed something strange about the screaming noise: there was a pattern to it. Levi sent a high definition recording of the sounds to a colleague at UC Berkely, Dan Werthimer, who co-founded the SETI@home project, asking for an analysis.³³

Werthimer's team discovered that the screeching patterns, when slowed down, sounded similar to a digital signal. Upon further analysis, they revealed a set of detailed, highly complex math equations. Levi reported his findings to Kurovec who ordered Aurora grounded until the equations could be solved. The solutions themselves were easy enough to find, but provided nothing in the way of insight into how to use the dish. They were dead in the water again... until Levi brought the dish back online for the next set of test flights and received a new stream of equations.

It took him a full three months to realize the dish was a tachyon array, capable of sending and receiving tachyon particles by simply reversing the electrical polarity. With support from Kurovec, he reversed the polarity during an Aurora test flight and fed the dish a digital

³³ SETI@home is a project whereby people can allow their computers to analyze radio signals from space during idle time, thereby aiding the Search for ExtraTerrestrial Intelligence. The idea is that personal computers can, collectively, process more data than any supercomputer, especially at a time when government funding for such projects has been shelved.

transmission of the solutions to the equations. Hours later came another transmission. More equations. Solved and sent back, again and again, their origins unknown.

By December of 2009, three of the radio telescopes at the Very Large Array had been reconfigured with scandium components similar to the ones found in Aurora's mystery dish. The frequency of the equational exchanges grew with leading mathematicians called in to formulate equations to send back into the void of space.

Then in May of 2010 came the trump card: a set of equations that revealed the stellar coordinates of a planet in Gliese 581. Someone had sent a galactic address and Kurovec, with the Obama administration's blessing, was determined to make a house call.

In the spring of 2010, under orders from Secretary of State Hillary Clinton to make first contact, Jan Kurovec began drafting plans for a deep space mission to Gliese 581. Aurora had still not gone public and the administration wanted to keep it that way. Sending people 20 light years from Earth in an experimental spacecraft to meet an alien race was unprecedented. And the mission had a high probability of failure: the EM drive assembly had not been used outside Earth's solar system, let alone for more than a few minutes, and contained alien components that, should they unexpectedly fail, were irreplaceable. A long mission with the engine continuously engaged was possible with the amount of antimatter that had been created, but there was no way to predict what problems might crop up, especially since the technology was not fully understood.

Furthermore, while the aliens had managed to communicate with humans through math, no language had yet been discovered which could establish their intent. There was no way of know whether they were hostile or not and, as Kurovec put it, he'd rather not wait to find out.

Then there was the issue of deep space. Not just deep space as in the local solar system... *DEEP* space. Space that was unexplored. Space that was the stuff of theories and conjecture and estimates and radio signatures that gave an "impression" of what was actually there. Mapping a course to Gliese 581 would be extremely precarious. How many black holes were between Earth and Gliese? What about solar crosswinds from the systems they would pass through? Asteroids, even the size of a dime, could punch right through the Aurora's hull and disintegrate the ship at faster-than-light speed.

Kurovec knew that in all likelihood, the mission was doomed and both the Aurora and its crew would be lost. In fact, he was hesitant to begin the mission at all, despite Clinton's orders.

But scientific discovery was never advanced by sitting in an armchair. Someone, somewhere would have to take the leap.

Lt. Commander Christensen was willing to do so. With soured relations between herself and her family, no husband or kids to worry about, and most of her friends being military, she considered it just another mission.

“I was eager to go,” she says, taking a bite of toast. A guard stands watchfully over her and she eats a rather nice breakfast with yogurt and eggs. Not standard fare by any means for the other inmates of ADX Florence and it’s clear that Warden Wiley is eager to make a good impression on such a high profile guest.

“We put together the civilian team in June. Ummm... let’s see... there were three requirements. You had to be academically brilliant, but not famous. Limited or no family. And they had to meet the physical requirements for spaceflight. And a background check, of course.”

She spoons up some yogurt and washes it down with bottled water. “What I’m saying is that we needed unknowns. You know, Carl Sagan probably would have jumped at the chance to go on this mission... and Miguel Alcubierre could have been our chief engineer.” She laughs a little. “But we couldn’t take them. Um... I mean if anything failed, they would have been missed. Too many people would have realized that they’d been gone for a long time and then the questions would have started, then the investigation, and then the lawsuits and then DXA is bankrupt.

“So Kurovec and I came up with the requirements to make sure everyone was a nobody. Brilliant and accomplished in their field, but a nobody at the end of the day.”

Their plan worked. Throughout the summer of 2010, Kurovec profiled a total of 38 potential candidates, requesting FBI background checks and low level surveillance. Of the original 38, only 23 passed all necessary background checks including family history, health history, and general personality patterns. 14 had no immediate family. And the final six were the ones who agreed.

“Let’s see,” she says, wiping her mouth with a paper napkin. The guard whisks away the breakfast tray. “Oh, thank you.”

“You’re welcome,” he says.

“So there was Warren Smith... PhD student at U Penn studying linguistics. He’d been in the TESOL program and taught English in like... four different countries by the time he was 30. Really impressive work on translation. We figured he would be the one to actually make contact and say hello.

“AJ Duarte. Ummm... Ethnobiologist, graduated from Stanford, worked with PETA, SeaShepherd, Green Peace, consulted for the EPA. Long list of credentials and a total bull dyke bitch. Pardon my French, I have nothing against gays, but she... Oh man she pissed me off.

“Then there was... Hmmm... I’m trying to remember their names... Oh! Brad St. Pierre. He was a viral technician for OriGen, went to Johns Hopkins, ran the ER at Atlanta General for two years. Brilliant doctor... absolutely brilliant. It came down to him or a surgeon from Cedars Sinai, but we figured his background in pathology would be useful since we weren’t sure if there would be new diseases and what not. OriGen also wanted one of their own onboard... you can guess why.

“Chrissy Olivier.” Christensen chuckles, shaking her head. “Chrissy was a political analyst for Fox News and had also done some work for MSNBC. She was Kurovec’s pick, not mine... said we needed a political specialist onboard to help understand their government. I thought it was overkill of course... and she was stupid. No, really. She was stupid. Like stu-pid.

“Xi Man. That’s with an ‘x-i’... Assistant astronomer at Mount Palomar Observatory in LA. Great PhD work in partial physics and he was fascinated by the EM drive assembly. We brought him onboard months before the others to teach him how to use the tachyon array to... well, to sort of scan. I mean, I guess it works kind of like radar. You send out tachyons in a fan shape ahead of the ship and somehow they can detect things the size of a pinprick light years away. I’m not sure how it actually works... I’m not a physicist. And besides that, um... it was alien technology. We never knew how to use it properly in the first place.”

She sighs. “And Aaron Ridgewood. Sociologist from UC Berkely, fabulous thesis on the geopolitics of Islam, culture of poverty movement, aspects of death. It was funny because Wirthimer, you know, the guy who does SETI at Home? Yeah, he actually taught one of Ridgewood’s classes at Berkely. Small world. And Ridgewood told me he had always wanted to be a youth pastor, but ended up getting his undergrad in sociology and then went to grad school for it, too. I don’t know... maybe it’s just me, but I don’t see how sociology and being a pastor are related at all.

“So that was the civilian team. Command crew was already done.”

Sergeant Troy Sorenson was first put on Aurora at Christensen's recommendation. After their brief, but memorable encounter in Afghanistan, Sorenson was promoted quickly and went through training to become a Marine Corps warrant officer with a specialization in weapons systems. Brought on in 2009 as Aurora was being finalized, he worked closely with Dr. Levi and the USAF to design Aurora's tactical weapons systems, both atmospheric and space-based, and would serve as Aurora's navigation and systems officer.

Captain Shanika Davis earned recognition throughout the Air Force when, in 2004, she managed to land her A-10 Warthog under full manual control when the hydraulics system was destroyed by antiaircraft fire in Iraq. She was later recruited to become a test pilot for the Boeing X-37 and in 2007, was assigned as the secondary test pilot for Aurora. Her easygoing demeanor and long-standing professional relationship with Aurora commander Mitch Jenner made her popular with Kurovec who deferred to her for the last round of test flights. Her position as pilot for the Gliese mission was assured when the lead test pilot decided to pursue a relationship with a lovely young Lockheed engineer working out of Groom Lake and abruptly resigned when she became pregnant.

Major Mitch Jenner was a seasoned veteran of both NASA and various black projects coming out of Groom Lake. He had served as mission commander on more than a dozen shuttle missions, specializing in communications satellite deployment and upgrades to the Hubble Telescope. As the Gliese mission approached, Jenner was in charge of training both the civilian and military crews on how to maneuver in a weightless environment.³⁴ While Jenner would not be the mission commander on the Gliese mission, he would be the senior bridge officer and any decisions he made around the safety of the ship would have to be honored by the rest of the crew until making landfall on Gliese.

Then there was the military component.

"We initially looked at not including any military personnel... I mean, besides me and the command crew," says Laura. "I thought it would send the wrong message, but in the interest of safety... I mean, you don't send a spaceplane and a bunch of scientists 20 light years away to

³⁴ Although one of the components salvaged from the damaged UFO at Groom Lake was a gravity generator, Kurovec and NASA chief Charles Bolden believed that it would be a wise security measure to ensure the mission crew could operate should the systems fail.

meet aliens without some kind of security. And Kurovec was *always* suspicious of them... their motives, why they wanted us to come visit, everything. So we decided on eight Marines, four American, four British.

“Now the British asked... no, I take that back... *requested* that we include Royal Marines. They said it was to safeguard the investment BAE had made in Aurora because there was British government funding in that antimatter core.

“But...” She shakes her head, brown ponytail swishing behind her. “Truth is, they wanted an MI5 agent onboard. Which was fine, I guess... I mean, it wasn’t like we had anything to hide at that point. A third ship was already being built for the British anyway.”

But there *was* something to hide.

While the technology used on the Aurora had passed rather freely between American and British defense contractors, there was the issue of the EM drive assembly. DARPA’s reverse engineering techniques had failed to produce several critical parts of the drive and so, in the interest of meeting Aurora’s fiscal deadline, the necessary components were simply taken from the crashed UFO and grafted into DARPA’s engine. If a second and third Aurora were to be built, the EM drive would have to be replicated. This was something that Hermann Levi and the engineers at DARPA, despite numerous attempts, had failed to do. Assuming the wrecked spaceship had come from the same alien race that was now in touch with the Very Large Array, another engine (or the technology to build it) would have to be procured.

There was also the issue of the gravity generator. Initially salvaged from the crashed UFO, the generator seemed to work properly, but had failed during several power surges on the initial test flights of the Aurora, sending the crew into unexpected weightlessness. A replacement and the technology behind it would be needed if a second and third ship were to be built.

This posed an interesting problem diplomatically on both fronts. Here on Earth, the British had been assured that certain components for the EM drive and gravity generators could be manufactured. As a result, BAE’s engineers signed on the dotted line without full disclosure, designing an antimatter containment chamber and a power relay network to Lockheed’s specifications without asking where the other pieces to the puzzle came from. Special Relationship aside, Kurovec was more than happy to keep them in the dark as a matter of

national security. The British simply didn't need to *know* how to build an entire drive themselves... the CIA had issued a report in 2008 accusing MI5 of being infiltrated by Iranian spies posing as Pakistani Britons. Should the information fall into Iranian hands, the consequences could be dire.

On the alien front, things were even more bleak. Christensen was tasked by Kurovec to bring back the technology needed to duplicate the EM drive and gravity generators *at any cost* up to and including the use of military force, hence Kurovec's insistence of including a security team.³⁵ But while a light security detail would be expected on any diplomatic mission of first contact, highly trained Marine commandos could be seen as overkill. Should the aliens suspect that this was an invasion force or reconnaissance mission of some kind, Aurora would be doomed.

She purses her lips for a moment. "Military force was the last option," she says quietly. "I was specifically instructed to exhaust all diplomatic options first, then use espionage, then lastly coercion."

For that reason, the rest of the military contingent was American Marines from 3rd Force Reconnaissance company, selected personally by Sorenson using the same criteria Commander Christensen had used for the civilians. Each man had had experience in intelligence gathering, possessed a stainless combat record, and had little family to miss him should he not return. Moreover, Sorenson had worked with each man during his tours in Afghanistan and could vouch for his capabilities. By August of 2010, the teams had been finalized, recruited, and put through the necessary training.

And by September, the messages from Gliese had abruptly stopped.

³⁵ In his testimony before the senate oversight committee during the Gliese hearings, Kurovec refused to answer the question of whether he had given Christensen the explicit order to use military force to recover extra EM drive components.

Groom Lake is situated in the Nevada desert, northwest of Las Vegas and in the midst of Area 51. While always the topic of much fiction, Area 51 does, in fact, exist as evidenced by its peculiar lack of existence. That is to say, pictures and maps of the locale are conspicuously absent from Google and its name is struck from most government documents.

What *is* known about Area 51 and its contents is largely apocryphal, pieced together from firsthand accounts given by individuals whose sanity has always been in question. Wackenhut security guards, armed with both handguns and semiautomatic rifles, patrol the borders in modified Ford F150s, especially the stretch along Highway 95 where Area 51 is most visible to everyday traffic. A perimeter chainlink fence, anywhere from 10-18 feet high and topped with razorwire surrounds the compound and signs are clearly posted informing passers by that the Wackenhut guards are authorized to use deadly force against trespassers. No one has been shot (to public knowledge), but a whopping \$600 fine has been imposed on people trespassing in the outer zone which extends several hundred yards from the fence.

Only a handful of people can actually confirm that they have been inside Area 51. While brave enough to ignore the nondisclosure agreement, the stories of what they've seen are so far fetched, so unbelievable that the U.S. government doesn't bother trying to prosecute or "bump them off". Instead, the government relies on the fantastic tales to make the person appear delusional. In a sense, Area 51's greatest defense against publicity *is* publicity because its contents are *that* unbelievable.

Only recently, with the extraordinary events surrounding Gliese and the Aurora program, has the veil of secrecy been lifted ever so slightly to provide a tantalizing view of what goes on in rural Nevada. Captain Davis had been there since late 2008, running the second round of test flights on Aurora. She is a trim woman, smaller than one might expect, but pretty with glowy black skin, clear lip gloss, a short crop of hair, and some gold hoop earrings.

"I never get to wear them," she says twirling the earrings in her fingers. She sits in a green vinyl booth near the back of a Denny's in Scottsdale. "When we go out to deep space, you

don't get to take shit with you! I took more junk to Iraq than I've got in my locker back at Groom Lake."

Scottsdale is Davis' home. She grew up in Phoenix, a child of the desert, and is obsessed with her burgeoning cactus collection. A waitress swings by. The sun is going down outside and she reaches over to flick the wooden blinds shut.

"Any dessert for you?"

A slice of peach pie and a slice of marionberry. The waitress fills the coffee cups on the table.

"I love marionberry! Better than anything they cook at the base... So where were we? August... Third week of August was training for weightlessness. They put you in a big suit and have you march around at the bottom of a pool for a few hours. Gives you the feeling of floating. But the gravity generators never went offline the whole mission." She waves her hands while she talks. Manicured French tips.

"Aaron was the last to arrive and they brought him straight from his dad's funeral. I mean, *right after* the funeral. Poor guy was still in a black suit. Sweet kid, though, and *cute* especially for a white boy." She grins.

"Anyway, so you get off the airplane and they take you down this elevator shaft that goes probably ten stories down. Then there's this big concrete tunnel with lights and painted lines on the floor. These computerized cars run on the lines... It's trippy. You get in one of those and drive for a few miles and then you get to an actual lab."

She moves plates and cups and napkins on the table to illustrate the layout.

"Now the lab is here," she says pointing to a napkin, "and the actual hangar where they built Aurora is way over here. In between are living quarters. They say you can have up to 5,000 living there at one time, but in the three years I've been there, it's been maybe 600. Lots of corridors are closed off, too, so you never get a sense for how big it really is.

"They put you through a physical and go through your medical history, give you vaccines for everything known to man, disinfect your clothing in this big steam cleaner. It's pretty cool."

The pies arrive and she pulls her plate towards her and begins eating.

“I mean,” she says swallowing. “For me, it’s just work as usual. But you’d have to talk to Aaron though to get a real sense of it... I mean, I’m jaded and I’m used to it. For him, it was fucking traumatic.”

Groom Lake Test Facility

August 28, 2010

1600 hours

By the time the afternoon of August 28th had come, Aaron Ridgewood had been through the most devastating event in his young life. While much can be speculated about the abuse he suffered while in Shelly's care, Ridgewood's life had been otherwise normal. The stability afforded to him by attending a Christian boot camp had paid off: he had made it through college with flying colors and then taken on graduate school. He was in debt up to his eyebrows, managing HR at a law firm in Seattle.

He had an apartment, friends, a few outdoorsy hobbies, and had even toyed with a relationship here and there. Here was a world at his feet, a world he could not get enough of when it came to studying the humans who lived there... their patterns, their beliefs, their fickle natures and complicated relationships. He had found the ultimate puzzle and would spend the rest of his life piecing it together (and working a day job to make ends meet).

Then his father died.

While Aaron and his father had never been particularly close, especially after the divorce and the fallout with Shelly, Paul's death hit him like a freight train. A brief call from Paul's long-time physician to explain that he had leukemia and that it was terminal. The phone call had left Aaron breathless and for a brief moment, he considered just going back to work, ignoring the loss of his father and continuing to do his job as if nothing had happened.

But, Aaron knew, death was part of the human condition. Coping with birth, life, and death were all instrumental in shaping human experiences. If he skipped his dad's funeral, he would be missing one of the formative moments in his life. How many times had he been witness to this moment in other cultures? His graduate studies had taken him to Brazil, Indonesia, Nigeria, and Latvia, to name a few. None of those societies had ever skipped out on death. How could he?

So Aaron drove from Seattle out to the little hospice in Poulsbo where Paul had been living the last few months to make some sort of amends, though exactly what he would say, he did not know. Paul was pleasantly surprised, not only to see his son, but to see that Aaron had grown up and polished himself. Somehow, the boy had turned out exactly as he had hoped in spite of everything. They talked about sports (something Aaron had never been interested in) and about Aaron's work for the law office.

No apologies were made, no attempts at reconciliation. Paul was too far out of it to realize that a simple "I'm sorry" would have healed the many scars. And Aaron, like any 27 year old who is successful and independent, was far too self-centered to think about the impact his distance had on his father. Besides, as Aaron reminded himself constantly, forgiveness was God's job, not his, and he could only attempt what God could do perfectly every time.

When Paul died the next morning, Aaron was left with a curious sense of emptiness. Perhaps it had been the years and years he had told himself he didn't need his father, perhaps it was that he was planning to go back and talk to him again that afternoon, or perhaps it was something else altogether. Whatever it was, it made him uncomfortable and he took to planning the funeral with Beth as a way of avoiding any kind of introspective thought.

The 28th came, sunny and warm, and he buried his father in the tiny cemetery overlooking Port Gamble. His father would have a view of the town he had loved so much and Beth, should she choose to stay in the house, would be able to come visit him whenever she liked.

Other than that, Aaron found the funeral to be a dry and businesslike affair. A flag had been draped over his father's coffin and a cluster of his Navy buddies, now men well into their 60s, were there in uniform to bid farewell to their fallen comrade. A minister he didn't know had said some half-truths about Paul, making him sound better than he actually was, and then rambled on in a very bland Christian sermon that was generic enough not to offend anyone.

Then the soldiers at arms had played taps, folded the flag, and handed it to Aaron.

"On behalf of a grateful nation."

Freight train.

Tears dripped out from behind his sunglasses as he held the flag to his chest, pain sinking into his gut as he looked past the silver coffin to the white-trimmed eaves and wraparound porches of Port Gamble's little farmhouses. His free hand found Beth's and gripped it tightly as the minister wrapped up the funeral.

Aaron was still clutching the flag when he arrived at Groom Lake, hastily spirited away by the men in the Lincoln Towncar that had been parked at the funeral. They had said something about national security, apologized for their timing, and then asked him to get in the car.

Hours later, he stepped off the Gulfstream V in the Nevada desert, greeted by Commander Christensen who ushered him into a nearby hangar, asked him to either sign the small stack of nondisclosure agreements and make a cool, tax-free \$250,000 for a one month assignment or be put back on the plane and taken home.

The money had proven persuasive and as soon as the pen was put down, Aaron was on an elevator platform going deep underground. Months before the mission to Gliese was even mapped out, Kurovec had met with Secretary of State Clinton to discuss payrolls for his team. A mission into deep space on a brand new spacecraft using alien technology that was not fully understood represented the riskiest undertaking ever attempted by the United States government since the Manhattan Project. Volunteers would not be easy to find.

Kurovec allotted \$10 million out of DXA's budget to pay the salaries of the scientists and soldiers who would go on the Gliese mission with two conditions: first, the monetary offerings were one-time agreements and could not be extended for subsequent missions and second, the money would not be paid until the safe return of the crew member had been verified. That meant that if a crew member died, the money would be reallocated back into the program, presumably for legal settlement fees with the family.

For Aaron, the money represented two very simple things: the ability to pay off student loans and the ability to buy a house. And though he probably would have gone on the journey regardless of the pay, it seemed to validate the intrinsic pride Aaron felt regarding his own intelligence and education. All that hard work, living with the hippies at Berkley, his struggle to make ends meet during his undergrad at the University of Washington, the horrid years at that boarding school in eastern Oregon... it was all worth it.

And while he was by no means the leading sociologist in the world, he understood better than any other civilian on the Gliese team about the need for low profile talent should the mission fail. To that end, Aaron saw, despite his varying stages of grief, a path to fame and fortune if the mission succeeded. If the pilots and engineers could get him to the planet and everything that Christensen had told him was true and the messages were legitimate and these aliens did exist... Aaron would have the chance to do something no other human had done: complete a scientific study of an alien society.

Shanika finishes with her pie and she sits, looking out the window as the sun sets across the desert. Scottsdale is green and lush, a testament to what American capitalism and consumerism could do to a hostile environment.

“The mission was originally scheduled for November. Like when Kurovec and Clinton first decided to make contact, it was supposed to be around Thanksgiving, have the team home by Christmas, and kick off the new year sort of thing. But when we lost contact... I think he waited four or five days after the last transmission and then decided to bump up the mission schedule.

“I know *I* was grateful. I didn’t want to be living underground for 3 months. Besides, I think AJ would have killed a few people by that time. She rubbed a lot of people the wrong way. Hated Chrissy from the start... total opposites. You’ve got this bubbly, ditzzy blonde republican on one hand and this angry socialist Latina bull dyke on the other. *And* she was suspicious of Aaron.”

She sips her coffee, staring pensively across the table. The greenish-yellow eyeshadow is attractive on her.

“She kept trying to change his mind about religion, about coming out. Said he wasn’t as talented as everyone else on the team, but from everything I saw, his credentials spoke for themselves,” she says, adding another packet of Splenda to her coffee. “Nice guy, to boot. I mean, really sweet, kept to himself, never complained. But she really didn’t like him.”

Davis’ assessment of Aaron and AJ’s relationship during the first few days of the Gliese mission is underwhelming: the two clashed from the start. AJ’s approach both to her life and her sexuality directly contradicted much of what Aaron stood for. Beginning with her work with SeaShepherd in the late 1990s, AJ Duarte had established herself as a take no prisoners kind of woman. While Christensen’s desire to prove herself came as a rebellion against her parents’ conservative view of a woman’s work, AJ’s came hand in hand with her lesbianism. It wasn’t that she just didn’t need men; she didn’t trust them. After all, male-dominated politics had completed fucked up the world in her view. Their gender was unredeemable.

Despite his work as a sociologist and having grown up in the liberal bubble that is Seattle, Aaron was possessed of a more conservative nature than his peer. Unlike AJ, he refused to wear his sexuality, fragile as it was, on his sleeve. He had been with women, he had been with men. He preferred men... he thought. Where that left him in God's eyes (or on the Kinsey scale) was up for debate and Aaron was happy to keep the gray areas private with a capital P. He didn't *want* to be gay... it was against everything he had been taught at Living Grace and though he despised his education at that school, a subconscious fear of God still permeated his impulses.

When he graduated from his master's program in the spring of 2010, he needed to find work, relocate back to Seattle, and go from there. By the time August had come around and he was settling in, his father was dying. And now a government contract. Finding himself would simply have to wait and Aaron tried his best to push to maelstrom of confusion out of his mind. AJ sensed this, deemed him too old at 27 to be undecided on his sexuality, and immediately sought opportunities to out him publicly in front of the Gliese team, harassing him at meals and offering up snide comments during training sessions.

But it was more than his ignorance of self. Aaron's dedication to religion flew in the face of AJ's belief system. For her, it was a method of social control which had no business whatsoever on a scientific mission representing all of humanity to an alien culture. To Aaron, it was his spiritual life force, a quiet and private source of strength for him in times of need. Was he a Christian? Not really. At least not in the truest sense of the word. Did he believe in God? Yes. Absolutely, no question about it.

But he didn't know who God was.

And that was where his deepest conflict happened: the muddled sexual feelings, his broken upbringing, and the various forms of God he had encountered had left him at the center of tempest. The other religions of the world, beautiful faiths, flew in the face of what he had been taught at Living Grace. But as a sociologist, these people were scientifically no different from the WASPs he'd grown up with.

It begged the question: just how accurate were his own beliefs? Had those seven years at the ranch in Oregon been false, his turnaround from angry child to disciplined adult disingenuous? Would this kind of questioning disqualify him from salvation?

Then again, did he *need* to be saved? He had never, not once in his entire life, felt distant from God or somehow unworthy, the bedrock of Christian psychology curiously absent from his life.

The questions racked his brain continually and he read bits from the pocket-sized Bible he kept with him at all times, scouring for answers between the lines of scripture. And this is what tipped off AJ to his beliefs when she caught him the morning before the launch, reading in his room. Standing in the doorway, she first accused him of being a Mormon which he denied. Then it became a debate around a few select passages that held dire moral complications for the modern adherent of the faith... slavery, the treatment of women, etc. And despite Aaron's best efforts to argue scholastically for a balanced and measured view of religion, AJ's emotions got the better of her and she stormed off in a hail of cussing.

What Aaron had dismissed as a fleeting encounter with a lazy liberal quickly turned into the dividing point between the two scientists. And by the time Aaron had finished his reading and made it down the hall to the dorm-like showers that morning, word had already reached the team of Marines that a "priest" was being brought along on the mission.

Groom Lake Test Facility

September 9, 2010

0200 hours

The Aurora, for all its size, was cramped inside. Major Jenner likened it to an attack submarine with windows. Aaron found it considerably more charming, fascination displacing his apprehension as the personnel boarded the spacecraft through the ramp leading down from the rear. In Kurovec's rush to push the mission forward, the Aurora's weapons systems had been scrapped and the bomb bay had been converted into a lower level which would free up more space for the crew to move around during the journey to Gliese. The decision was not easily made... Sergeant Sorenson had pushed for some kind of weapons system in case they encountered a hostile alien ship. After all, if the aliens could communicate using tachyons, it was entirely likely that they had advanced spaceflight capabilities as well.

However, Kurovec had made the final call, citing that the latest weapons, even those possessed by DARPA, would be ineffective in space combat. Moreover, Aurora had never been designed with dogfights in mind and while the ship handled neatly, its characteristics were that of a jetliner rather than a combat aircraft.

Aaron noticed the civilian influence as soon as he boarded the craft. The inside was almost completely lined in translucent white plastic panels, lit from behind with LEDs that changed color according to the time of day to help induce sleep or waking. The panels were climate controlled and automatically dimmed when no one was present to save energy. On the floor was charcoal gray office carpeting... short pile, clean and efficient.

He wandered through the stack of supply crates in the cargo bay, up the ladder, and then down the hall running down the length of the plane, tiny quarters off to either side. Downstairs was the galley, a small laboratory, a greenhouse area that supposedly kept the air recycled with fresh oxygen, and all the plumbing and electrical systems.³⁶

³⁶ In the proposed commercial variant, the Aurora has only a single deck with seats in a traditional airliner configuration. The greenhouse is unique to the prototype Aurora.

He found the room number that matched his little bag of clothes and toiletries: 4. He threw the bag on one of the bunks and wandered back down the hall through the cargo hold and into the engine room.

While he understood very little about the physics involved, Aaron was fascinated by the EM drive assembly. Dr. Levi had tried to explain how an electromagnetic field was generated by the engine and that the polarity of the Aurora's hull is what enabled it to "slide" through space, but at the mention of the word "antimatter", Aaron had tuned out. He loved science, but this was beyond him.

Still, he enjoyed looking and guessing how things worked. The antimatter reaction chamber was a tall cylinder, magnetically shielded and integrated with all manner of salvaged alien components. From the base of the cylinder ran two massive pipes in a V all the way to the back of the ship into the nacelles and, from there, the afterburners (or whatever they were called... Aaron had stopped asking for explanations as to how things worked as soon as the gravity generators were demonstrated).

"You ready to fly, hon?" Captain Davis was looking at him expectantly, holding the door to the engine room open.

"Yeah! Where do we go for takeoff?"

"Well, they didn't put many seats in this thing, so unless you want to get your ass strapped down in the cargo bay, you should come with me."

Aaron followed her to the bridge where she promptly dropped herself into a sunken pit in the floor at the very nose of the ship, eye level with the base of the glass windows, surrounded by touchscreens, buttons, readouts, and a rather simple-looking control stick between her knees. On the glass, projected in red lasers, was a complicated HUD that flashed, waiting for input.

"You joining us for takeoff?" Major Jenner was abrupt, a brash man of 50 with a gray buzz cut, barrel chest, and quick smile.

"Yeah... if that's ok."

"You get the tactical station... no bombs on this mission, so you can't blow up anything accidentally!" Laughter from him, Davis, and Sergeant Sorenson who was a shock of blond hair wedged under one of the control panels, fiddling with wires.

He turned to look at Aaron. “Seriously, though. Don’t touch any of the controls... the circuits on this POS are pretty fragile.”

“Don’t talk about Dora that way!”

“Yeah she’s sensitive,” said Davis, patting the controls.

Aaron stared at them, blank. “Dora?”

“Yeah we’ve nicknamed her Dora. The explorer? C’mon, you’ve seen the cartoon...”

Jenner was going through a login of some kind on the fold-out LED screen mounted to his chair.

“No? My niece watches it all the time... I asked Kurovec if we could paint a purple backpack on the hull.”

More laughter.

There were three leather swivel chairs mounted to the floor in an arc behind the pit. The center was for the captain, to the right up against the wall was navigational control, and to the left on the opposite wall was tactical.

Aaron took his seat and strapped himself into the harness belt. Sorenson emerged from under his console and began click clacking away at his keyboard, occasionally touching something on the screen, flicking the image away, then back to his keyboard. He was cute. Aaron stared in the other direction.

He listened for a time as Jenner and Davis and Dr. Levi chatted over the little Bluetooth headsets everyone seemed to be wearing, going through a preflight checklist of some kind. Then he heard the ramp in the cargo bay close with a snap-snap-hiss and Christensen’s voice over the conn.

“Prepare for departure.” She sounded like a flight attendant and he pictured her on a jet. No passenger, even the biggest corporate CEO entitled-to-the-world asshole, would *dare* disobey her if she said to turn electronic devices off.

Aaron watched as the warehouse around the ship cleared of people, then dimmed into pitch blackness, only the red glow of Captain Davis’ HUD lighting up the bridge. A night takeoff to maintain utmost secrecy... no lights on the launchpad or the Aurora. Just a few dim dust trails as the ceiling of the massive underground warehouse slid open above them and the ship began a

steady ascent on the massive hydraulic platform which had been its construction yard for nearly 20 years.

Only three of the original engineers from Copper Canyon were left by the time Aurora took off that night and they watched with Kurovec from a dim observation post above ground as the ship emerged, the platform leveling with the runway.

Kurovec looked at the bridge for a time, a slight smile on his lips, and then gave Davis a thumbs up.

“Control, we are go for takeoff,” said Davis.

The comm system crackled with Kurovec’s voice. “Copy that, captain. At your will.”

“See you in a few weeks.”

Aaron watched as she touched the controls and the vectors mounted under the hull came on, lifting the ship directly into the air. The cabin rattled and shook as the whooshing sound intensified and the Aurora lifted a few more feet off the ground.

“Engaging afterburners.”

He flew back in his seat, a loud roar emanating from the rear of the ship as they flew forward in one silky smooth motion. No wheels or potholes to deal with on the runway. Just up and *forward*. The G forces were a little much and he felt his nose tingle slightly as they climbed higher and higher, the vectors shutting off as they approached the sound barrier.

Then a slight jolt and they broke it, faster and faster until the stars seemed to get brighter and fill the front window. Several more minutes and the engines began to calm down. Aaron didn’t realize that breaking the sound barrier was quiet from the inside of an airplane.

“D-Do we use any of the rocket fuel for getting up to light speed?” he whispered, trying to take his mind off the adrenaline pumping through his lower back.

Davis shook her head. “Only to get out of the atmosphere. The scramjets don’t work this high because there’s no air to burn, but we’re not out of the atmosphere yet, so we’ll do a quick orbit with the thrusters taking us up bit by bit, then we’ll break away and hit it. Kinda like a slingshot.”

“And we land like the Space Shuttle?”

“More or less. We’ll do an orbital descent and then use thrusters at the very end to slow us down to a stop. But we *can* land straight down just like we took off.” She flicked another switch. “Engaging gravity generators.”

A woov-woov filled the cockpit briefly and Aaron felt the familiar tug downwards, not realizing how much lighter things had felt as they cleared the Earth’s atmosphere.

He looked at the iPhone in the palm of his hand. He’d conveniently forgotten to leave it in the cardboard box Christensen had given him and managed to smuggle it onboard in his fist. Spellbound suddenly by the pitch black of space and the swath of stars he’d never seen before in his life, he stared in silence past the red glow of the HUD. There was the Earth’s curvature lining the bottom of the window, the geography slipping by at breakneck speed. They had to have already completed an orbit... wasn’t that Africa again? But the stars...

“You wanna take a picture, hun?” Davis was looking back at him.

“Oh, no no...”

“It’s ok. Mitch, do you mind?”

Jenner looked up from the flatscreen mounted near his right hand. “Hmm? No. Actually, you mind if Shanika takes it for you? I don’t want to get any of the ship in the frame...”

“Yeah, that’s fine... just a shot of space,” he said. He unlocked the phone and disabled the flash before handing it to her. The lasers flicked off the HUD for a moment, he heard the telltale ‘click’, and she handed it back. It was beautifully exposed, a smear of white stars on an inky black sky, the faint glow of the Earth at the bottom edge.

“Now don’t let the commander see that.”

“Good idea.” He patted the black bodysuit, looking for a discrete pocket. Kurovec had contracted The North Face to design form fitting body suits for the Aurora crew, complete with leggings, a turtleneck shirt, black polyester pants, and a zip up jacket with everyone’s name stitched into the left breast. Aaron thought it looked like winter running gear, but the Aurora was relatively cold inside and the suits kept them insulated.³⁷ Moreover, the bamboo-blend fabric was antibacterial and would keep the crew from stinking as time passed without access to a shower.

“Check the inside front of your pants,” said Sorenson, watching Aaron fumble.

³⁷ While the Aurora does possess a form of climate control, deep space missions, far away from stars of any kind, result in the internal temperature hovering around 50°F.

He fumbled even more upon hearing Troy's voice in the blackness of the bridge. Sure enough, inside the waistband on the right side was a tiny pocket, similar to the one sewn into swimming trunks. The iPhone barely fit, but when Aaron zipped up his jacket again, the bottom hem covered the square form sticking through the fabric of his pants. He shifted a little, unsteady on his feet.

"You'll get used to it," said Jenner. "The boots take a few days to break in and the gravity is a little stronger up here on the bridge."

The door behind the captain slid open. Christensen was there, clean and tidy and efficient as always. She slid the door shut behind her.³⁸

"Major, Captain, Sergeant..." She nodded to each of the command crew.

"Ma'am."

"Mr. Ridgewood."

"Hi."

"You enjoying the bridge?"

Aaron smiled. "Yeah. It's amazing... I-I can't believe we have this kind of technology."

Christensen smiled, her face scrubbed and her hair pulled back. "You haven't seen anything yet. Are we ready, Major?"

"Yes... pre-FTL is complete. Are your teams secure?"

She nodded. "Yep."

"Then let's do this."

Sorenson typed some more. "First set of coordinates are loaded and ready... prepare to engage EM drive on my mark." He glanced over his shoulder at Davis who was pushing buttons and dragging her fingers over the touchscreens.

Davis tapped the earpiece. "Engineering, this is helm. Are you ready? Alright, we are go for FTL."

Sorenson turned to the Major. "Sir?"

³⁸ The Aurora's door system is completely manual to prevent failure in the event of a power loss. All doors are pocket doors with batteries built in to enable a magnetic air seal in the event of depressurization. Standard operating procedures onboard Aurora require that all doors remain closed at all times. In the event of depressurization, closed doors lock themselves until normal pressure is restored.

“At your will, sergeant.”

Sorenson tapped his headset. “Stellar coordinates 3-4 point 7-2 degrees galactic east, positive pitch 1-4 point 2-1 degrees.”

Davis’ hands were flying over the screens. “34.72 east, 14.21 pitch aye.”

“Inertial thrusters are offline, power cycling is complete. EM drive initial engagement on my mark...” He paused, watching the map in front of him on the screen rotating as Davis maneuvered the ship. “Engage in 5... 4... 3... 2... 1... mark.”

“Engaging EM drive.”

Aaron watched Davis’ hand on the flat screen under her palm, orange streaks illuminating under her fingers as she drug them upwards.

And then the stars stretched themselves out, long streaks of white and gold as a low hum resonated throughout the ship. No G forces this time, no flying backwards in his seat... just the perception of moving forward as if in a movie theater. Then nothing but colors... red and blues and greens and all spectrums of light flooding through the dark bridge.

“We are at 2.9 FTL, antimatter reaction is steady,” said Davis. “First tack will be in 3 hours 42 minutes.”

The lights came up and Jenner got up to pat Sorenson on the shoulder, looking at the course he’d plotted out. Christensen merely folded her hands behind her back and left the bridge, sliding the door closed again behind her.

Aaron was both underwhelmed and awestruck. “That’s it?”

Sorenson looked back at him. “That’s it. You expecting something else?”

“I-I don’t know...”

“Sorry it ain’t *Star Trek*, buddy.”

He suddenly felt like a fool. “And you said tack? Like a sailboat, major?”

“Call me Mitch, please.”

“And call me Shanika and blondie is Troy. We try to keep it casual unless Miss Thang is in the room.” Davis grabbed the two small bars mounted on either side of the cockpit and pulled herself out. “Then it’s all business.”

Jenner motioned Aaron over to the navigation console where a large LCD screen showed a stellar map with zigzag lines all over it.

“We have to tack our way there, like a ship going through a windstorm. There are asteroid belts, comets, black holes... all kinds of shit we have to avoid and navigate around. When we were doing test flights, Troy almost killed us on the way to Neptune. Forgot that Saturn has rings beyond what you can see with the naked eye and ended up flying through chunks of ice the size of golf balls. One hell of a hailstorm.”

“Hey! That was an isolated incident!” Sorenson got up and flicked his headset off, rubbing his ear.

Aaron was aghast. “This thing doesn’t have shields?”

Sorenson snorted. “I said this isn’t *Star Trek*... at least not yet. There’s an electrical field around the ship because of the engines and that’ll push away smaller debris. But something larger than a toaster and we’re fucked.”

Aaron swallowed hard.

Jenner nudged him with his elbow. “Hey... don’t let it scare you. We’ve been plotting this course for days using data from all kinds of tachyon telescopes; we’ll be just fine.”

“Come on,” said Davis, tapping Aaron on the shoulder. “I’m hungry.”

Captain Davis sits on the rear bumper of her Volkswagen SUV in the parking lot of the diner, surrounded by the reddish hue that is Arizona at sunset. Her skin is flawless and glowing as she lights a cigarette.

“I only do it when I’m stressed out,” she says. “Not that I’m stressed now, it’s just... remembering everything. Brings back a lot of emotions.”

She takes a few puffs and exhales the smoke downwind, watching the cars pass by on the street for a moment, their headlights on despite the pink light.

“Things were already going bad by the second day. Not with Dora... the damned thing is a marvel of engineering and I’d fly it through hell and back. Marines were fine mostly, got along pretty well just chit chatting and running some drills in the cargo bay. But the civilians... we had a lot of trouble.”

While Kurovec had conducted extensive background checks on every member of the Aurora’s civilian team, he had failed to anticipate the impact that a deep space journey would have on normal, non-military personnel who were not accustomed to dangerous expeditions using experimental equipment. That is to say, by the time the first 24 hours had elapsed on Aurora, the mental health of several civilians was degrading.

“Chrissy was the first to go and man, that bitch went off the deep end. She was sharing a room with the commander and decided on the second day that she shouldn’t have signed on, didn’t think she could do it, and all that shit.” Davis takes another puff. “Crazy assed white bitch... She went nuts. Asked to turn the ship around and when Mitch refused, she locked herself in her quarters and threw all the commander’s gear into the hallway.

“So the commander decides she’ll go sleep somewhere else. OK, right? Well she ends up bunking with two Marines. Mitch gets kind of pissed off because he’s... well he’s old school and doesn’t like men and women bunking together. So they had this huge argument in the middle of the night and he basically orders her to bunk with me and AJ.

“She gets pissed and says he can’t order her to do anything... that she’s the mission commander and what she says goes. But he’s the captain of the ship and until they’re on land, there’s no mission which means he’s in command and what he says goes. Nasty fight.”

She puts out the cigarette on the rear fender of a Cadillac parked next to her.

“So there’s the commander and the major, Chrissy is going nuts, Dr. St. Pierre is camped out in the hallway trying to counsel her through the door, and then AJ decides she’s gonna get all femi-nazi and lecture everyone on women’s rights and some odd shit.” She shakes her head.

“Dysfunctional.”

Lt. Commander Christensen has a similar assessment of the journey.

“OK, look... I’ve been under fire with men practically on top of me and the major has the gall to think I can’t share a sleeping space? As if the boys just *can’t* control themselves and... and I don’t know... they’ll ravish us in the night and destroy our honor. It’s fucking provincial.” She frowns and shakes her head. “No one cares anymore. You got a job to do, you’re not staring at tits and ass. Not a one of those commandos gave a shit because they saw me as their CO and that was that.

“I mean, I’m a *commander* in the Navy. Well, not after this court martial is over, but either way... I didn’t get here by being a... a dainty... femme fatale. Or a walking mattress.”

She is agitated, tapping her nails on the table quickly and fluffing her orange jumpsuit to cool herself off, her skin flushed pink.

“Now we disagreed, but I got the Major. Really, I knew where he was coming from. But Chrissy was stupid... You don’t agree to go on a deep space mission if you can’t handle the stress. Now I *told* Kurovec that we *should* have done psych evaluations, but he was in such a hurry to get the ship up because the transmissions had stopped...” She sighs. “I don’t know if he thought the aliens were dead or angry or what... but the whole thing was rushed. And one of the vaccines they gave made everyone sick. That’s when Chrissy really lost it. Bimbo. And then the doctor is outside her door, talking through it like he’s her damned therapist and we’re literally stepping over him in the hallway.

“And AJ just makes it worse...” Christensen’s eyes narrow and she straightens up in her chair. “First, she wore Crocs on the ship. Boots were required, but she made this big complaint to

Kurovec about her feet hurting and how she had plantar faciatis and needed different shoes. Crocs...” She glares for a moment. “Bright blue *Crocs*.

“Then after I blow up at the Major, she went off on this power trip about women’s rights and overcoming male dominance. The Major let her have it big time. Told her to keep her mouth shut or he’d blow her ass out the airlock.” She laughs slightly. “The best, though, is when we took a turn and she spilled coffee all over herself. ‘Cause the gravity generators go a little crazy during a tack... she lights up and decides to go bitch to Dr. Levi about the design of the ship and what not.

“She goes on and on for like ten minutes in front of half the crew and you know what he said? ‘Do vat everybody else does: don’t drink ven ve take a turn.’ Christensen bursts into hysterical laughter.

Gliese 581 System

September 17, 2010

1340 hours

Aaron was back in his seat on the bridge, his seatbelt fastened and his hands folded in his lap. He was ten minutes early for the arrival in Gliese and wanted to be there when the ship dropped out of FTL. And his nerves were back. After over a week in space trapped inside a cramped spaceplane, he would be able to get out and walk around again (provided that the atmosphere on Gliese 581g was conducive to human life) and his heart fluttered a bit in anticipation.

Christensen and Sorenson were staring at the screen above the navigation console, murmuring in hushed tones while the major and Captain Davis looked on. The door slid open and Xi entered.

“Glad we could finally get you out of the engine room,” said Christensen. “We’re picking up debris in Gliese. Can you take a look?”

“Sure.” He walked over to the console. “That’s odd... It looks like an asteroid field, but I’ve never seen it before... Even the radio telescopes would have detected it.”

“That’s what I figured.”

“Did Kruovec send any updates?”

“I sent him a message an hour ago, got his reply, no updates... I don’t think they’re looking, though. You think it could have moved in since we left?”

“Possible. I mean, not likely, but possible. This is space... anything can happen.”

That worried Aaron. More than once, even before their departure, he had overheard Xi and Dr. Levi discussing the unpredictability of space.

“Could it have interfered with our tachyon signals?”

“You think this is why we lost contact? Maybe. But tachyons travel way faster than light. This shouldn’t have posed a problem for them; I mean, they travel through stars and black holes. Asteroids would be nothing.”

Christensen turned to Davis. “Do we fly through it?”

“If we want to make landfall, yes.”

“Can *you* fly through it?”

“Absolutely.”

“Major?”

Jenner pursed his lips and hesitated. “When we drop speed, I’ll assess it. I want to make sure we make landfall in one piece.”

“We didn’t travel all this way to not land or make contact,” she said.

“And we didn’t travel all this way to get pounded apart by an asteroid field. I said I’ll assess it when we drop speed.”

She paused for a moment, her eyes fixed on him. “Fine.” She tapped her headset and the conn came on with its usual crackle. “Attention, we’ll be dropping out of FTL in a few minutes. Please secure all equipment and fasten your seatbelts.” She turned to the Major on her way out the door behind Xi. “If you need me, I’ll be in the cargo bay.”

The door slid shut and Jenner shook his head. “Troy where we at?”

“Preparing to disengage EM drive and reverse polarity.”

“Bring us out short of the planet... I don’t want us coming out in the middle of that asteroid field.”

“Aye, sir.”

“Good.” He fastened his seatbelt. “At your will.”

Sorenson tapped his headset. “Engineering, this is the bridge, preparing to disengage EM drive on my mark. Helm, prepare manual control of vectors and afterburners.”

Davis had already dropped into her hole again. “Fuel vectors and afterburners are active, aye.”

“Disengage EM drive on my mark in 5... 4... 3... 2... 1... mark.”

“Disengaging EM drive, reversing polarity of field. All stop.... now!”

The kaleidoscope blur which had filled the bridge for over a week suddenly faded and there were stars again, millions and millions of them, more than Aaron had ever seen, arranged in strange patterns that he didn't recognize. And a planet, red-orange and marbled with the swirls of clouds hung like a bright ornament in the open space ahead of the ship.

"It's... it's a gas giant," said Davis.

"But that..."

"Do you think there could be life on it?"

Sorenson shook his head. "I don't think there's any landmass down there."

There was a pause on the bridge, an uneasy silence filled with disappointment and wonder. There was no way to tell, on Earth at least, if Gliese was a landmass or not. Everyone onboard Aurora had assumed, incorrectly, that it was another Earth, with oceans and mountains and cities and telescopes and alien people peering out at the stars in wonder. *This* was unexpected.

Then Aaron saw it.

"Look!" he said, almost shouting. "There's a moon."

And there it was, blue, green, and white, circling so close to the gas giant that it looked as if it might fall into the swirling red orange hue.

"It's beautif-"

"Jesus, look out!"

A massive black object swooped over the top of the cockpit, blocking out the planet and the command crew instinctively ducked.

Sorenson was typing furiously at his console. "Lots of asteroids... and they're moving. I don't think we can avoid it."

"Keep the sensor readings coming my way," said Davis, gripping the control stick and starting to steer. "We'll fly through."

"What *was* that?" Jenner was watching his monitor. He tapped his headset. "Bridge to Christensen... we're entering the debris field. Standby."

"It looks like metal."

"There's another one!"

Davis was watching the windows and the sensors, steering the ship suddenly downward to avoid a collision. The red planet slipped out of view, an edge of the moon hanging on the right hand side of the window.

“Did you see that?”

“See what?”

“It was shiny... like there was a light.”

“Look... there.”

Up ahead was a chunk of what looked like ripped metal. It had been forged into something at one time... something much larger than the Aurora judging by the gentle curvature of the shape. It was shiny, polished... maybe even painted. Then jagged edges, twisted and blackened.

Aaron was trembling. What had he expected? A runway with lights and a little alien man guiding them in from a control tower? Had he *really* been so naive?

And now here they were in the middle of an asteroid belt. If they had been traveling faster than light, they would have simply gone around it, but now they were relying on thrusters and unwieldy controls to avoid a collision.

“There’s something on the side...”

“Turn on the lights.”

Davis flipped a switch and brilliant light shone out from somewhere under the nose of the Aurora, illuminating the piece of debris in front of the ship.

“It’s textured.”

Squares of metal, manufactured. Aaron realized immediately what it was. “It’s... it’s a ship.”

Jenner looked at him. “You think so?”

“Look at the metal... square plates mounted next to one another. That’s manmade.”

“It’s many ships... look! That one has engines.”

A piece of a ship, presumably the rear, was floating away drifting like a toy in the expanse of space. The metal showed burn marks and two afterburner-like nacelles.

Jenner unfastened his seatbelt and stood up, walking towards the windows. “No wonder they never replied... this is a fucking warzone.”

“You think they’re all dead?”

“Maybe. Troy, you getting anything from the moon?”

“Uhh...” Sorenson switched screens, turning in his chair. “I’ve got a ping from a continent in the southern hemisphere... atmosphere looks pretty similar to Earth...”

Davis pointed to the moon. “Lots of green... maybe a jungle?”

“Possible.”

“There’s another one coming,” said Troy.

“I see it,” said Davis. The ship steered again, the gravity generators making a woov-wooving sound under the floor.

“Well,” said Jenner, tapping on his headset, “I think this changes things. What do you guys think?”

Davis turned to look at him over her shoulder. “I *can* fly through it, but it’s risky as hell. And we don’t know what to expect down there. It could be a land war, too.”

“I agree,” said Troy. “I mean, the likelihood of whoever it was still being alive after seeing this... I say we get some readings, but I don’t know if it’s worth the risk.”

“And you?” The Major was looking at Aaron.

“I’m down with whatever you guys decide. I mean, maybe there are some survivors down there who could help us. Or maybe they will be back to clean up the wreckage or... or rebuild. But I don’t know.”

Jenner tapped his headset. “Commander?”

Aaron could barely hear the tinny voice coming from Jenner’s headset. “Go ahead.”

“We’re turning around until we get a better read on the debris field.”

“Proceed and make landfall.”

“I don’t think that’s a good idea... if this is a warzone, we shouldn’t be in the middle of it.”

“Your orders were to make landfall when we got here. Take us in... I’ll be up there in a minute.”

“Negative, I have to ensure the safety of this ship. Commander?” He tapped his headset again. “Hello? Damned thing is dead. Davis, hold our position,” he said, unfastening his seatbelt and opening the door. “I need to have a chat with the commander before we-”

Aaron’s ears rang in excruciating pain and he reached up to cover them as a wall of sound hit him from behind. The moon disappeared from view as the ship slid downward into space with dizzying speed.

“Something hit us from aboooooooo-” Troy was screaming.

A gushing whoosh of air slid past Aaron and jerked his head back, an alarm wailing somewhere above the door. Upside down, he watched Jenner grab for the bulkhead and lose his grip, flying backwards through the door and down the hall towards the cargo bay, screaming. It took a split second for him to understand what was going on as an alarm sounded above his head.

His heart sank and he felt adrenaline flooding into his intestines, his breath short as his lungs struggled against the gale force winds in the bridge.

The door.

Aaron snapped his head forward again. Shanika was trying to regain control of the ship, her teeth bared as she fought to reach each control on the helm. Sorenson was barely audible, trying to shout numbers at her, his voice evaporating while above him, air flooded out of the ventilation system in streaks of white.

The door!

Aaron felt his hand down along the seatbelt, yanked out extra length, and wrapped it around his wrist twice. Then, he took a deep breath and with his other hand, pressed the release button.

In an instant, he shot backwards, up and out of the chair, smacking his shoulders against the bulkhead and shattering an LCD near his station.

“Fuck...” His wrist turned white as the nylon seatbelt dug into his skin, clawing his way across the back wall of the bridge towards the open door, the hurricane strength wind pulling him hard.

Just a few more feet... his breathing was labored and he could feel his heart pounding in his chest. He braced his boots against the doorframe, air swirling past his body as he reached for the handle of the pocket door.

Sweat on his fingers felt icy cold and slid against the metal handle of the door. Just the little further and grip a little tighter...

The door began to move, further and further, and then it closed. The windstorm stopped and the door sealed tight as he twisted the lever, gasping for breath on the floor while fresh oxygen poured into the bridge. He looked across the carpet... blood dripped from Sorenson's face down over his console and onto the floor.

"Shit...", was all he could manage.

"Are you still with me, Aaron?!" Davis was shouting over the alarm, her hands a blur on the various screens and controls around her.

"Yeah... I'm here."

"My nav screen is out. I need you to read me what's going across Troy's console."

"OK... I'll try..." He untangled the nylon belt from his hand and made his way over to Sorenson, shoving his body aside and wiping the bright red blood away with his sleeve. "He's hurt pretty bad..."

"Don't worry about him now! Look at the screen!"

"What do you want to know?"

"There should be a cube in green with little grid marks... like a 3D... like a Rubic's cube. You see it?"

"Yeah."

"OK there's an orange dot at the center..."

"Yeah I see that."

"OK, you'll see bright blue shapes for things out there around us."

"Uhhh... there's one coming up from down and to the right."

"OK... OK touch it."

"Yeah?"

"Read me the numbers."

“77.12 SW and 56 degrees NP.”

“Say again?”

God that alarm was loud. “77.12 SW and 56 degrees NP!”

“Got it.” She steered the ship and the blue dot was gone from the model. Aaron tapped another one.”

“26.02 NNE and .01 degrees NP.”

She steered again. “Can you feed the visuals over to my terminal?”

He frowned. “Ummm... how?”

“Shit...”

“Wait wait wait... I think I can do it.” He touched a menu at the top of the screen that said ‘Display’. “Transfer to linked display? Is that what I want?”

“Yes!”

“Which one are you?”

“I want it on Cockpit 3.”

He scanned the list and touched the words. “Done.”

“OK now I need you to go to the captain’s chair and look at his screen.”

Aaron pulled himself away from the navigation console. He was dizzy, lightheaded, and his hand was an ugly shade of red from having its circulation cut off. “What am I looking for?”

“There should be a readout of the ship... like a floorplan.”

The screen was suspended on a metal arm and Aaron adjusted it. “Yeah it’s all red at the back.”

“Depressurized...”

“And there’s something flashing downstairs in the kitchen... yellow.”

“That means a fire... Shit. Is the room sealed?”

“Yes.”

“OK... OK zoom in on the engine.”

Zoom in? How?! He put two fingers on the screen and spread them apart. Nothing. He double tapped. Nothing. God damned non-Apple engineering.

“How do I zoom?!”

“Touch the magnifying glass and then the area.”

“Fucking unintuitive... OK I see the core. It’s in green.”

“OK next there should be a menu that says ‘Planetary’.”

He tapped it. “You want the landing gear put down?!”

“We can’t stay in space like this... that moon’s our best chance.”

“What?!” The alarm was still screeching into his ears.

“We can’t stay in space!”

“But what if the atmosphere is tox-”

“Just put down the fucking landing gear!”

He touched the words and then ‘Deploy’, listening to mechanical whir as they slid out somewhere from the hull beneath his feet. There was a flashing light at the bottom of the screen which said “MASTER ALARM”. He touched it and the painful screeching stopped, the lights around the door still flashing insistently.

“Ahhh thank you!” said Davis.

He glanced up and almost jumped back... they were up close to the moon, the gas giant filling in the background behind it and casting a red glow over the cockpit. VERY close. The moon dominated the front window, bright and blue, rising up steadily from the base of the cockpit.

“Aren’t we gonna burn up with a hole in the back of the ship?”

“I’m gonna do a geo-synchronous descent and use thrusters the whole way to slow us down. Think straight down from above.”

“But that’ll waste fuel! We gotta get back home...”

“Fuck the fuel... I’m getting down there in one piece.”

The ship came about and the cockpit filled with a view of black space once more, the gentle curve of the planet beneath them. The curve rose higher, higher, higher... and suddenly they were in a cloud cover, white trails whipping up past the windows, flashes of pink sky, then more white. He looked at the screen and watched the rocket fuel reserves drop steadily, remembering the Major saying something about only enough fuel for two takeoffs and two normal landings. The bar on the screen continued to drop and dipped below halfway.

Overcast sky now... rippling pale pink clouds out as far as the eye could see and misty green land far below. The fuel continued to drop. Down, down down... Aaron's heart began to pound as he watched the fuel indicator.

"We're running out of fuel."

"15000 feet and dropping."

He could hear the thrusters roaring angrily on the underside of the ship.

"10000 feet."

The fuel dropped below 25%. They would not be able to take off again and Aaron's unease turned to panic, his pulse raging in his head as his hands shook.

"7000 feet... I hope it's flat where we're landing."

More and more fuel gone. There were hills and mountains out the front window, lush green with a few snow capped peaks. To the left, a mile or so away, there was an ocean. And a pinkish atmosphere, the sun a brilliant shade of red-orange as it peered through the hazy cloud cover.

"5000 feet. We're slowing down. 4000.... 3000..... 2000..... 1000..... 500 feet. Thrusters on maximum."

He watched the screen flash red as the fuel dropped.

Then there was a small jolt and the fuel graph stopped at 2%, flashing. Davis took off her headset and looked over her shoulder at him.

"Landfall."

Keldar

“We must, however, acknowledge, as it seems to me, that man with all his noble qualities... still bears in his bodily frame the indelible stamp of his lowly origin.”

-Charles Darwin

Davis is visibly upset as she drives, speeding through a yellow light in her little VW Tiguan, its turbocharger screaming. For a moment, she looks as if she might cry, eyes welled up and lips in a trembling downward pout.

“We lost so many good guys that day,” she says, her voice quaking. The heat of Arizona still bakes in the middle of the night and she has the air conditioner turned on. “I’d worked with Jenner off and on for almost ten years and he was just sucked out. One of my best friends... great mentor.” She wipes a tear from her cheek and pulls over suddenly into a parking lot of a Safeway, stomping on the brakes to stop the car across two open parking stalls.

“Sorry... I can’t be driving like this.”

In the investigative report on the Gliese mission that appeared before the senate oversight committee in the weeks following the ship’s return, the depressurization of Aurora was determined to be the result of a six foot wide hole torn in the roof of the cargo bay.

Of the nine Marines assigned to the Gliese mission, none survived the descent except for Sorenson who, as the Aurora’s tactical officer, was assigned to the bridge.

“That hit him hard,” says Davis. “I’ve never seen a man so upset. Four of his own buddies and the four British commandos... all strapped down to the floor with their skin puffed up and torn open... suffocated and then frozen.³⁹ Quick and nasty death.”

Dr. Levi and Xi Man died similar deaths in the engine compartment, still strapped into the plastic jumpseats that folded down from the wall across from the antimatter core. Contrary to standard landing procedures, the engineering door had been left open to the cargo hold when the explosion occurred and the air surrounding the antimatter core was sucked out instantly.

AJ Duarte, ever eager to buck authority, had simply been holding on to a bulkhead, ignoring Christensen’s instructions to buckle herself down during landing. When the hole

³⁹ The official report submitted to congress lists the cause of death as asphyxiation. However, since no medical doctor was present to determine the cause of death, this was deemed inaccurate. The senate oversight committee which investigated the Gliese incident determined the cause of death to be embolism due to the sudden change in pressure. This would have resulted in rupturing of the lungs and body-wide subcutaneous swelling due to water vapor forming under the skin.

appeared in the top of Aurora, she was sucked from the cargo hold almost instantly and ejected into open space.

Dr. St. Pierre and Warren Smith had buckled themselves into two jumpseats in the galley and secured the door. By all accounts, they should have survived. However, the depressurization of the cargo bay and the subsequent vacuum caused an unusual amount of strain on the electrical systems.⁴⁰ Several wires overloaded behind the stove, causing an electrical fire. Within seconds, the entire electrical panel in the galley had burnt itself out, filling the room with toxic fumes and smoke as the stove and surrounding storage lockers containing the Aurora's rations caught fire. Both men died of smoke inhalation, unable to escape from the room once the door had automatically locked itself upon depressurization.

Of the civilian team, only Aaron, after a harrowing experience on the bridge, and Chrissy, locked away in her quarters since the second day of the trip, survived.

Then there was Commander Christensen who, after losing communication with Jenner upon entering the debris field, had made a last minute trip to the bathroom adjacent to the cargo bay before descent. She was systematically locked in as the electronic door detected a pressure change in the cargo hold. The fire in the galley destroyed the secondary power relays that ran along the belly of the ship and she was unable to open her door from the inside, even after landing.

Sergeant Sorenson was badly injured, an LCD panel having ripped from its mount on the wall above his head and smacking him across the left side of his face. His nose was fractured in two places, a massive concussion had swelled above his temple, and there was hemorrhaging in his brain. By the time Captain Davis had set the Aurora down, he was drifting in and out of consciousness on the floor of the bridge.

Davis lights another cigarette, stepping out of her VW and into the heat to smoke it. "Aaron didn't want to open the door in case the atmosphere wasn't breathable. Probably saw

⁴⁰ This was due to the bridge, cargo bay, and engine compartment ventilation systems all trying to replenish the lost air simultaneously. The senate oversight committee conducting the investigation found that had the doors to the bridge and engine room been closed as per standard operating procedures, the overload would not have occurred.

Avatar too many times. But I had an oxygen sensor readout. Atmosphere was almost identical to Earth.” She pats some of the ash off the end of the cigarette.

“I patched up Troy and then we checked the quarters... Chrissy was a mess. Opened her quarters, smelled like shit and rotten food. She hadn’t left the whole time. Bloody, beat to hell, and buck ass naked. Screams like a crazy fucker when she sees Aaron, pushes him aside and bolts for the cargo bay... Bitch screams AGAIN!” She emphasizes the word with her cigarette. “Then the cunt lowers the ramp and runs off into the grass.”

Davis takes a deep puff and the tip of the cigarette glows a hot orange. “Probably got eaten or some shit. You know, she deserved that. My mama always told me not to bite off more than I could chew. I tell you what...

“Commander found a way to short out the electrical circuit in her door... wouldn’t unlock from the inside automatically so she hotwired the damned thing. Then everyone went to the cargo hold.” She grows silent again, looking away. “There’s this hole in the top of the fuselage, twisted metal and blown apart. Bodies, strapped to the floor. Gross shit like you’ve never seen. The doctor and Warren have their feet charred off because the carpet in the galley caught on fire. Xi and Dr. Levi had their seatbelts fastened so tight, their skin’s split open along the edges. The marines are just this... I dunno... twisted mess on the floor. No sign of Jenner at all and one of AJ’s Crocs is stuck in the gash up on top of the cargo bay, chunk of her foot still in it.

“All the years I’ve been in the Air Force and I’ve NEVER seen anything like it. Never. Meanwhile, it’s 85° and muggy as hell, so I decide we need to bury them before they start rotting. Got Aaron to help me and the commander started going through an inventory of what we had left.”

With only a few small shovels, it would have taken days to bury all the dead, even in a mass grave. Citing the current circumstances, Aaron proposed burning the bodies. Davis agreed and, after digging a fire trench in the grass, the pair found a small bottle of rubbing alcohol with which to start the blaze using some sheets from the bunks and sticks from a nearby tree. The first body nearly put out the flames, but as the flames grew in size and intensity, they heaped the other dead crew members on it and watched the makeshift pyre burn, Aaron uttering a small, humble prayer.

But Christensen had a fit when she saw the smoke.

“Idiot... it was a dumb move.” Laura folds her arms across her orange jumpsuit. “Davis should have known better... that’s survival 101. The smoke went up so high, it was probably visible from Earth. Totally compromised our position. And of course, I go to use the little tachyon dish and it’s broken. So we have *no* way of telling Kurovec that we need help.”

In fact, Aurora’s last reported position was just outside the Gliese system as they were preparing to drop out of FTL. When he didn’t hear back from the team for 24 hours, Jan Kurovec began to worry and launched a detailed investigation into every aspect of the mission from start to finish, hoping to find some clue as to his team’s disappearance.

While DXA had in place contingency plans for nearly every type of scenario, including a hostile alien invasion of Earth, there was no such plan for the Aurora mission should the ship become disabled or stranded. The other two Auroras were years away from completion unless DARPA and Lockheed could magically recreate the alien components used in the EM drive assembly and even then, there would be no guarantee that the Aurora was stuck in Gliese or that the crew was still alive and worth a rescue attempt.

Kurovec therefore had to think backwards about the situation. The Aurora had reported her last known position just outside the Gliese system, all systems were functioning normally, and Christensen had seemed in high spirits. If the ship was destroyed, by natural or alien causes, there was nothing he could do about it. If it was still intact, it was likely they had made contact with the alien species. But what was preventing them from calling home?

Unless...

It was possible, however unlikely, that the Aurora had been taken hostage somehow by the aliens. It was a long shot, but barring a total loss scenario, it was the best Kurovec could come up with under the circumstances. No evidence of a mechanical failure, no distress call, no reason to believe the Aurora was lost. That pointed to foul play.

And so when the Very Large Array detected a previously unknown debris field surrounding Gliese, Kurovec began to panic.

The pink atmosphere had faded to a whitish-rose, the red dwarf sun casting strange shadows as Aaron made his way down the side of the grassy mesa atop which the Aurora was perched. There was a creek a dozen yards or so away from the ship, buzzing with iridescent red & blue dragonfly-like creatures nearly a foot long. Aaron nearly had a heart attack when one landed on his shoulder, inspecting him with compound eyes the size of quarters before flying off, its papery wings rattling.

The creek led down a gentle ravine and then into a dense forest that squawked with the chatter of birds. With any luck, there would be a pool where he could bathe. *With real water.* To conserve space and water, the Aurora crew had been given a disinfectant body lotion manufactured by Pfizer.⁴¹ The intent had been to create a waterless hygienic solution that could be used on deep space missions and possibly have military applications as well, thereby reducing the dependence on showers, waterlines, and the logistical problems that accompanied them.

But the mixture had irritated Aaron's skin the first day and he now felt greasy. Moreover, he had barely slept the night before, kept awake by the strange sounds emitting from the forest and a deep-seated fear about whether it would ever be possible to get home. Sorenson was wavering, his breathing irregular and his consciousness unpredictable. The ship was damaged beyond repair. And so far, there were no signs of intelligent life. Sheer panic had threatened to drive the surviving crew mad and Aaron knew clearing his mind with a simple bath would do wonders for his critical thinking.

Laura, as he called her, did not share his optimism.

"I'm still the mission commander and I am ordering you not to go."

"Well I'm sorry, but I'm heading out there. Our best chance at getting home now is to find anyone who lives here and make contact with them." He slid the shotgun into a side pocket on the daypack.

"You signed a contract..."

⁴¹ Pfizer's involvement in government projects as a pharmaceutical contractor is well documented in the Department of Justice's 2009 report on government expenditures.

“Yeah and I think that’s null and void at this point. And spare me the lecture. You were the one who got us into this whole mess... you ordered the Major to land even though he recommended turning around. So, you know what? I’m kinda done taking orders from you for a while.”

She pulled her gun from its holster under her left arm. “You go down that ramp and I’ll shoot you.”

Aaron stared back at her, frowning. “Nice try.”

He turned and marched down the ramp into the grass, skirting the massive scorch mark where they had cremated the bodies the day before.

Aaron was a man on a mission. If there were aliens, he wanted to say hello and ask for help. And that was *not* going to happen sitting back on the ship, worrying and changing bandages on a dying man. For him, the path was clear: God had let him survive for a reason and he was to make good use of the second chance granted to him. That meant a bath and then some time to think.

The pool he eventually found was wedged at the base of a waterfall that had cut its way down through solid rock in the ravine. Thick trees with trunks five feet across grew up from either side of the water like weeds, closely packed and clamoring for sunlight with birds Aaron could not see screeching high above. The shade near the edges of the pool was a welcome relief from the hot hike across the savannah and he welcomed the deep breaths of clean air.

He shucked off the boots, enjoying the feel of his bare feet on the rocks which lined the edge of the pool. No sand... just pebbles, rounded from years of erosion. Then the tank top, peeled away from his sticky, sweating torso. And the makeshift shorts, formed by cutting the fabric with a pair of fingernail clippers and tearing it around in a circle above his knee. He looked at the tiny band on his wrist which contained a GPS chip. The other members of Aurora had them implanted under their skin, but as with the vaccines, Aaron had refused, citing his “religious” beliefs. Truth be told, he wasn’t a Christian Scientist by a long shot, but Aaron absolutely did not want untested vaccines floating around in his system. Kurovec had relented and allowed him to wear a small neoprene wristband with the express understanding that he would not remove it. He decided to leave it on, just in case.

Then, finally, wonderfully, the underwear came off.

He had tried hard to avoid any nudity on the ship and rightfully so; it was cold onboard the Aurora in deep space. There was also Sorenson with whom Aaron had shared a cabin. The handsome blond tactical officer seemed to be magnetic: despite Aaron's efforts to avoid physical contact, they'd bumped elbows a number of times and the sociologist had felt his face flush hot after each encounter. Nudity would only make things worse.

He set the shotgun down on the rocks near his clothing and leapt into the water.

Glory.

Nothing but pure, unadulterated, cool, crisp glory. Water everywhere... flooding every corner of his body, cleansing, refreshing, and stripping away the layers of sanitizer gel and moisturizer that had left a sticky chemical membrane on his skin.

Then he dunked his head.

Even better.

It tasted outrageously pure, no pollution or runoff having ever tainted its composition. Just pure H₂O. He thought of a Brita commercial.

He scrubbed his head and his armpits and his groin, then ran his feet through the pebbles at the bottom. He could see all the way down... brown and red and white stones and nothing else but clear, perfect water.

When he had finished washing, he stepped back out onto the shore and dug through the daypack for some shaving cream and a fresh razor. He shaved, the cold water stinging his skin. *Good* pain.

He rinsed his face and that was when he saw it: the animal behind him. Red and black and shiny... it looked like a large lizard. Did it? Or were his eyes playing tricks on him?

Then he saw it again, reflected in the wavering water, glints of shining red and black scales. Large scales. Like plates. A head with two terrible gold eyes and legs of some kind. Were there four?

He couldn't count, his pulse surging through his head and drowning out the birds squealing above. He was naked, next to a pool of water, his back turned to an alien life form.

Chrissy had never returned.

This is what ate her.

It moved closer and Aaron's heartbeat soared as the muscles in his back tensed up. A weapon... the shotgun was behind him, too near the alien for a quick reach. He would have to find something else. The razor? It was a Mach 3... wouldn't do much.

A rock! He spotted it, just in front of his left foot and under the water's surface, a large flat rock the size of a frisbee. He pretended to wash his hands for a moment, watching in the reflection as the creature behind him crouched down and approached from the tree line.

His fingers dug in the sediment below the rock... it *had* to come up. No excuses. He dug a little harder and it loosened. Then some more and it was free, resting between his palms under the water, silt trailing off its surface with the current

The reflection grew closer and closer, like a car approaching for a pass in a rearview mirror. To the right, he thought... to the right.

And then he did it.

He burst upwards with all his strength, spun to his right, and brought the stone crashing down on the red and black plates of the creature's head.

There was the clank of stone against metal, the creature crumpling against the trunk of a tree. It was still alive... and the gun was still too far away. He'd have to smash its head again. But as Aaron was heaving the stone up for a second strike, his own arms trembling from the exertion, the creature reached out a hand to stop him.

Five fingers.

...

He dropped the stone with a dull thud and backpedalled to the area where he had left his clothing, slipping into his shorts and grabbing the shotgun. Chik-chik. It was ready to go.

The five fingers again, clutching the side of the head where there were deep scratches in the metallic paint.

Paint? What an idiot he had been... it wasn't a reptile at all. It was a person wearing body armor, a gold-plated visor wrapping around the front of a helmet of some kind.

Aaron took a step forward and it stood up suddenly, balancing on both its legs. There was a weapon of some kind in its left hand and it pointed it at Aaron. The shotgun was ready to go... he could squeeze the trigger and blow a hole in the damned thing regardless of the armor. He'd been shooting enough times as a teenager at Living Grace... nothing could withstand a pump action shotgun at point blank range.

Then again, its weapon looked like it would vaporize him on the spot. There'd be nothing left but a pile of ash.

He eased the shotgun down and set it beside him on the shore.

Then he took it in.

It was over six feet tall... maybe 6'6" or 6'7". The body armor was a series of red geometric plates mounted on a foundation of black material. Two legs, two arms, a neck and head.

And five fingers.

Aaron slowly reached out his right hand. Not that they understood what shaking hands meant, but maybe... His chest was heaving under his chin as he struggled to keep his fingers from trembling.

The alien's gun lowered.

Then the other hand reached up and pulled off the helmet.

Aaron stared in shock. A Human face... a nose and lips and cheekbones and eyes and eyebrows and hair. And it was male... that is, if males had more angular features than females. Blood red hair cropped down to no more than half an inch long, pale white skin, a strong bridge in the nose and a sharp jawline. And deep red eyes that cut through him as he stood shivering and wet in the shade.

The alien took its glove off and extended his own right hand. A thumb and four fingers with nails, joints, dextrous muscles... even fine hairs.

Aaron stepped a little closer to the alien, then closer again, rocks and moss beneath his bare feet, watching it breathe and make the armor across its chest rise and fall.

Then their hands touched and Aaron felt his nerves go into overdrive, his mouth trembling as he struggled to speak against the electric feeling of the alien's warm hand against his own. It stared down at their hands as Aaron shook up and down.

"I'm Aaron," he blurted. "Ridgewood."

The alien looked back up at him, eyebrows furrowed now, the red eyes searching for something in Aaron's face.

"What's your name?" Aaron took his hand away and pointed to himself. "Aaron."

"Air-in," said the alien.

It talked!

"That's close enough." That forced a smile onto Aaron's face and broke some of the tension building in his gut. He pointed to the alien. "And you are?"

"Shandur'na Brec."⁴²

"Shandoor na break?"

"Brec." Rich and resonant. The alien's voice was impeccably smooth.

"Brec."

The alien nodded. Aaron made a mental note that nodding meant affirmation for them as well.

"You... with me," said Brec.

Aaron's eyes widened. "How do you know English?"

The alien shook its head. "You, with me. Get get," he said, pointing to Aaron's clothes on the shore. "You, me... ahhh..." He looked down, searching for the right word, then shook his head in frustration. "You, me..." He pointed through the trees.

Suddenly, Aaron was afraid. How did this alien know rudimentary English? Where did it/he want to go? Why was it taking him there? He had been inclined to trust it when there had only

⁴² For the purposes of this book, Keldar native will be represented in transliterated English characters rather than its original script. The first edition of Anne Pewter's *Introductory Keldar* has been used as a reference.

been silence between them, but now... now was a different story. Articulate speech was not the most honest form of communication.

Aaron slowly backed away and put on his tank top and boots. He retrieved his razor and put it back in the bag. Then the gun, slowly picking it up, making sure to aim it away from the alien who still gripped his weapon, a horrid looking thing with a curved blade and pulsing lights. There was no reason not to go with him; Aaron had made contact with enough tribes of people to know that everything would be fine.

Or so he told himself.

This was *not* the Amazon and these were not regular human beings who had simply never seen a white man before... this was an alien world, light years from Earth, with a species of Humanoid that seemed to have had a head start on the diplomacy process by knowing English. The situation was far from predictable.

Still... why not?

“OK,” he said, standing up. “Where we going?”

The alien nodded and moved past him towards the tree line. Aaron noticed a bloody gash on the side of the alien’s head where he had hit him with the rock. He tucked the shotgun into the backpack and reached out to grab the alien’s arm.

Instantly, the alien whirled around, shaking free of Aaron’s grasp raising the weapon in his hand. It glowed an angry shade of orange.

Aaron put up both hands, his heart fluttering. “I didn’t mean to startle you...”

“Ke pai’i na stutick! Mentaal!”

“OK... I won’t do it again... but you’re...” He pointed to the alien’s face, then to his own. “You’re hurt.”

Brec’s hand shot up to touch the side of his head. Red blood on his fingertips. He sneered back at Aaron.

“I’m sorry... I didn’t know. I thought you were an animal coming to kill me.” He put his hands down at his side, forcing air into his lungs at regular intervals. “I’m sorry.”

The alien shook his head in frustration. “There,” he said again, pointing. “You.” He grabbed Aaron’s arm with crushing strength and pulled him forward into the trees, the sound of the waterfall and the birds fading as they immersed themselves deeper and deeper into the forest.

Seattle is a strange city. For nine months out of the year, it is shrouded in gray clouds, rain, and evergreen trees. Then for three months... July, August, and September, the entire city erupts into a decadent summer that immediately puts every other American city to shame. Clear blue skies, mountains and water on all sides, green green green and a light breeze floating in off Puget Sound. Low humidity, late nights with the sun still up, and abundant hiking and water sports somehow make the other nine months worth it, an adequate payback for having one of the highest depression rates in the country.⁴³

Unlike his hometown of Port Gamble, Aaron is much more at ease in Seattle. He lives in an old warehouse, recently restored and converted into lofts. They were intended as condos, but when the bottom fell out of the housing market, the developer had the good sense to rent them out as apartments. Distressed hardwoods, floor to ceiling windows, and a collection of vintage Danish modern furniture give warmth to the space despite the gloomy “50° and rain” forecast. A Doberman patrols the living room, its toenails clicking on the floor as he makes his rounds.

Click click click click. The dog pauses to stare at the FBI agent standing just inside the closed and locked front door. Click click click click click. It stares out the windows, presumably to the black sedan parked across the street with the other agent contained inside.

The dog *knows*.

“Sherman, come here buddy.” Aaron is stretched out on a low slung sectional in faded jeans and an old polo shirt, the collar fraying. The Doberman immediately climbs up and lays down next to him, watching. “Sorry he’s such a pest... gets overprotective sometimes.” He smooths the dog’s neck with his hand and Sherman responds by licking his arm.

He’s not what one might expect. Despite all the speculation, publicity, and controversy around Aaron Ridgewood, he’s normal. He’s modestly handsome with symmetrical features, green eyes, nice teeth, dark hair, a groomed beard... a rich tan from a weeklong trip to Mexico

⁴³ In 2009, Bloomberg listed Seattle as number 20 on its list of metro areas hardest hit by the recession. While ranked lower in violent crime and suicide, Seattle ranked 6th in number of citizens suffering from clinical depression, presumably due to the chronic overcast weather. http://www.businessweek.com/lifestyle/content/feb2009/bw20090226_526384.htm

sets off his skin against the faded cotton of his shirt. Due to the wild publicity surrounding the Gliese mission, he looks familiar and people stare, thinking they know him from somewhere. The scars down the right side of his face, faint white lines that bend a little when he smiles, are barely visible.

“Plastic surgery. It was my present to myself when I graduated from college. Z-plasty and then a ton of laser resurfacing... it looks OK now.”

He’s self conscious and looks away, turning so that the scars are hidden.

Despite being the first person to make contact with an alien race, Aaron shows no signs of celebrity or arrogance. In fact, he’s almost too humble, downplaying his encounter with Brec Shandur by the pool that morning.⁴⁴

“It wasn’t diplomatic at all. I was scared shitless. In fact, after we started going through the forest, I had to piss so bad... He ended up taking me to this... this... well, I guess it was a communications tower of some kind. It was shaped like...” He holds up his hands. “Square base, but all the walls leaned in towards one another. Like a... like a trapezoid.” He pumps his hand in the air, grinning. “Word of the day! Trapezoid.”

The microwave beeps and he leaps for the kitchen, Sherman following him with a series of click clicks. He takes out two cups of hot milk and whisks in some instant coffee and Swiss Miss.

“What?” He’s talking to the dog. “What? This isn’t for you! Dog’s can’t have chocolate. What, you think you get to eat whenever I do? You’ve got a dog bowl over in the corner. Why don’t you see what’s in it? Huh?”

Sherman is sitting on the floor, staring up at Aaron, licking his lips.

“Oh alright...” Aaron grabs a dirty plate from the dishwasher, pours out a small amount of his makeshift mocha, and sets it in front of the dog. “Get it.” The dog laps up the mixture, licking its teeth several times to get rid of the sugar, before making sure the plate is completely clean.

“You done?”

⁴⁴ When the Keldar introduce themselves, they say their surname first to denote the house from which they are descended. In Brec’s case, the house of Shandur is a farming clan dating back sixteen generations.

The plate goes back in the dishwasher and Aaron returns to the sofa, setting both cups down on the coffee table as Sherman resumes his rounds.

“He was a rescue.” There is a pause. “Two years old and the owner gave him up because he lost his job and had to move in with his relatives. One of my friends works at an animal shelter. She fostered him and brought him over one day and he never really left.” He looks at the dog who cocks its ears in his direction. “Didn’t she. Yeah you know I’m talking about you.”

He turns back and takes a sip of coffee. “Anyway, it’s maybe a half mile away and we get there and it’s made out of... oh I don’t know... some kind of concrete I suppose. Whatever their equivalent is. It’s on the shore of an ocean and there’s a ship parked next to it.

“Now the kicker is that when I was at Groom Lake, I got lost my second day and ended up down by the vaults. I saw the ship that crashed in 1972... the one they were using components from to build the Aurora. And I saw the diagram one of the engineers had drawn. The ship Brec was on was newer and larger, but it was totally similar. That’s how I knew the chunks of metal around Gliese were pieces of ships... I’d seen the construction before.”

He eyes the FBI agent warily, before looking away. “So anyway, we’re inside this tower and there’s more of them.”

Seven total, including Brec. Aaron was counting as the aliens stood around him in a cluster, staring in an uncomfortable silence. Around the room were holographic projections of algorithms, what looked like computer code, and several 3D maps of space. Low consoles that reacted when the aliens touched them, almost instinctively.

They were all so tall! Brec was short... the rest of the aliens were each near seven feet in height. Not disproportioned in any way, but certainly larger than Aaron’s own puny 6’. They would make a good basketball team, he thought.

Brec and another man (was it acceptable to call them ‘men’?) were talking in hushed tones over in a corner. A female with softer facial features and purple-brown hair was examining Aaron with some kind of scanning device. He didn’t feel anything strange as she circled him... it was probably harmless. She looked at her instrument for a moment, her eyes flicking up at him, then back down.

“Sitana, ke mannu pri’ita... kola na Keldaro’o.” She walked over to Brec and the other man, showing them the device. They both stared at Aaron for a long moment, then began looking at her instrument again and whispering.

“Umm excuse me? Hello?” They stopped talking and stared at him. “Yes, um... m-my ship? Ah shit... my ship...” He pointed out the door towards the alien spacecraft parked nearby. “Mine.. of those... oh what the hell. My ship is that way and I need to be getting back. They’re gonna start worrying about me and I don’t want to get us off on the wrong foot.” Aaron caught one of the aliens behind him, a shock of pinkish brown hair, a small pane of clear glass held in his hand with images projecting from it.

The larger man Brec had been talking to came forward. He was a magnificent looking creature, tall, angular, clean shaven, and with long pale green hair pulled back into a high ponytail secured with metal rings. By his uniform, Aaron knew he was of some importance, though there was no symbol of rank that he could detect.

“I am Lomi Or’dan. Uhhhh I... I am happy meet you.” He held out his right hand as per the gestures from Brec.

Aaron’s jaw nearly hit the floor.

“Aaron Ridgewood,” said the Human, shaking his hand. “I-I’m an explorer. We’re explorers...”

The alien pointed to Aaron’s daypack and the butt of the shotgun sticking out of it.

“Oh... ummm...” Aaron unslung the pack from his shoulder, causing a brief frenzy of movement among some of the aliens. The green haired man motioned them back, watching intently as Aaron lowered his bag to the floor. “We take guns with us just in case, but we don’t mean to be violent. No fighting.”

“Explore, yes,” said the alien. “You, us... ahhh... no fight.”

Aaron felt like dancing a little jig. “I’m sorry, how do you speak English?!”

Lomi looked at him, vacancy in his eyes.

“You,” said Aaron, pointing. “English.” He motioned to his own mouth as he spoke. “How did you learn it?”

“You send.”

“We send... no, no, we sent math equations.” Aaron shook his head. “Math. Ummm...” He looked around the room until he saw a projection of a graph of some kind. “We sent graphs,” he said pointing.

“No, you send... many...” He looked at the pink-haired man behind Aaron who was still doing something with the animated pane of glass. “Qui tani ‘je’elli’?”

“Signal,” said the man.

Lomi looked back to Aaron. “You send many signal.”

“Can you show me? Can you,” Aaron said pointing to Lomi, “show me the signals?” He motioned back to himself.

Lomi nodded and moved to a nearby console, tapping a few of the readouts on the shiny black surface to shut down some of the holographic projections. Then a new one came up, two dimensional and rectangular. Audio crackled in from a speaker somewhere.

“OK, she... she is a ten-time Grammy Award winning singer. Yes... *ten* times! Songwriter, actress, fashion designer, and she’s a new wi-iiiiife! And that is *why* the New York Times calls her ‘the woman with eeeevrything’. Come on out Beyonce!”

“You’ve got to be kidding me...” Aaron watched as Beyonce appeared in an asymmetrical one shouldered cocktail dress, greeted Oprah, and sat down in front of a cheering audience. “You’ve learned English from watching episodes of Oprah?!” He stared for a moment, watching the interview for a moment before he tore his eyes away. “Well, she *is* compelling...”

Lomi glanced at the tablet the pink-haired man was holding, then back to Aaron. “You have sent many signal-s.”

Grammar improvement. The alien was a fast learner.

Aaron pointed to the image of Oprah. “How did you get this?”

Whatever phenomenon had accelerated the speed of the Bebo message out of Yevpatoria had also done the same thing to dozens of radio and television transmissions whose satellite relays had “bled” part of the signal out into open space. Upon further investigation that afternoon, Aaron would learn that the Keldar had no fewer than 136 fragments of audio and video from various parts of the world. And while most came from American media, the Keldar had also picked up a large chunk of BBC, Spanish soap operas, a single fragment of a Chinese reality show, and a few episodes of al-Jazeera news.

Still, it was a small miracle that they had managed to piece together basic English sentence structure without having any formal schooling.⁴⁵ Moreover, they seemed to have a genuine zeal to learn. When Lomi and his team followed Aaron back to the ship and saw the damaged Aurora, they immediately began taking readings to gauge the ship’s capabilities. This came over the objections of Commander Christensen who, completely unfazed by her contact with the aliens, still felt it was her duty to guard the most secretive black aircraft in Human history.

“They were so... gregarious,” says Shanika. Her cigarette is out and she is ready to hop back in the car, shivering as the heat wears down in the Arizona night. “They basically waltzed right in, all smiles and handshakes and like they’d known us for years. So I figured I should give them a tour of the ship... see what they might be able to help with because you never know in these situations what kind of resources your people are. Of course, the commander is all bent out of shape, bitching about how this and that are classified.”

But Christensen quickly realized that with nearly two thirds of the electrical systems down, she could do little to actually lock any doors onboard. And so she kept watch as the small

⁴⁵ The Keldar’s considerable mental abilities are the result of intensive education which includes flash-based learning, immersion into new subject matter rather than measured introductions, and centuries of eugenics.

cadre of aliens followed Davis and Aaron around, chatting and gesturing, the gulf of understanding between them narrowing one word at a time.

And she was not alone: Brec stood next to her, eyes fixed on the group, hand on his weapon just in case the newcomers should suddenly rear up and attack them. In fact, tactically speaking, standing in one another's presence was the safest place to be. There would be no sudden moves, no sneak attacks, and should anything happen to go wrong, they had the advantage of a clear line of sight.

But by this time, Aaron's sense of caution had turned into exuberance. He rifled through Warren's quarters until he found what the linguistics expert had intended to present as a gift to the aliens: an Oxford English Dictionary, the MLA Guide to English Grammar, and, perhaps most importantly, the professor's old MacBook loaded with all five levels of Rosetta Stone English. He put them all in a small crate he'd found in the cargo bay and presented them unceremoniously to Lomi as the alien was inspecting the EM drive assembly.

The gift was overwhelming and Lomi immediately summoned the other Keldar into the ship where they sat on the floor of the cargo bay in an arc around the little laptop, clicking through screen after screen, repeating the words and inputting data on their glass devices.

This granted Christensen a brief reprieve from playing watchdog and she went back to her clipboard stashed on the bridge to go over her assessment of the ship. As if the six foot wide hole in the top of the hull wasn't bad enough, most of the electrical circuits had shorted out when the fire in the galley overloaded the ship's power relays. The bridge was still functional, but most helm control needed for flying in terrestrial atmospheres was damaged. The galley was gone as were their food stores save for a few boxes of MREs that were buried in one of the large crates in the cargo bay. The tiny greenhouse had a few vegetables in it and dozens of seed packets, but it had been used primarily for generating oxygen, not growing food.

Chrissy's quarters were uninhabitable; they would have to be hosed out, disinfected, and refitted with new textiles and mattresses. Suddenly embarrassed at the stench which wafted through the ship's halls, the commander dragged out the soiled mattresses and even ripped up a few carpet tiles, marched them shamelessly past the Keldar delegation, down the ramp, and

burned them outside. This elicited protests from Brec who had remained standing on the ramp, listening to the English lesson with one ear and keeping an eye on the Human with another.

Christensen ignored his bantering; she had bigger problems than polluting their planet with toxic fumes from burning foam rubber. The descent that had avoided burning up the Aurora in the upper atmosphere had also resulted in not having nearly enough fuel to take off again, even from a horizontal position. They could possibly find some kind of plant to ferment, distill, make jet fuel and then gas up Aurora that way, but it would take weeks to make a single gallon, let alone the several thousand required for ascent.

Then there was the question of the EM drive assembly which, while appearing stable, had been exposed to the vacuum of space and would require a thorough inspection before any attempt at using it could be made. Antimatter was no small matter⁴⁶ and both Christensen and Davis had agreed that it would not be wise to risk using the drive again until it was certain it was safe to do so.

All told, she estimated the earliest they could return to Earth would be six or seven months during which time they would have to establish a garden, find and supplement their diets with edible flora, distill a highly flammable yet stable fuel, and somehow source enough metal to patch the hole in the roof. Even if the second Aurora was completed early and sent on a rescue mission, there was no guarantee that it could travel faster than light without the alien components that made up the prototype's EM drive. Moreover, the Aurora mission had now lost its absolute best engineer and it was unlikely that there was anyone on the staff at DXA who could match Dr. Levi's intelligence.

Beyond that, upon returning home, Christensen would have to explain to Kurovec exactly how her leadership had allowed for the deaths of 13 military and civilian personnel and the disappearance of one, especially given the situation regarding Jenner's advice that they not make landfall. Then again, seeing as how the mission had been expected to fail from the start, four survivors seemed reasonable. And there *was* Kurovec's imperative... bring back the necessary components for the EM drive assembly 'at any cost'. He *had* said 'at any cost'. She hadn't

⁴⁶ Pun intended.

counted on that cost including the lives of her own crew. The aliens were the ones who were expected to put up resistance, not the other members of the mission.

Maybe she should have told Major Jenner the real reason for her being mission commander. Maybe then, he would have seen things from her perspective and they could have found a way together to land the ship in one piece. But even the Marines hadn't been told about the DXA directive, let alone the command crew or the civilians. It had been Christensen's imperative from the start and the Marines were there to assist her as a last resort.

At the very least, Christensen hoped the aliens had a doctor... Sorenson was down for the count and unless he received medical attention in the next 24-48 hours, it was likely he would suffer permanent brain damage. His skills as a tactical officer were useless in his condition and Captain Davis could not (or would not) pilot the ship alone.

Captain Davis herself was capable, if less than pleasant. There was considerable bad blood between both women as Christensen's spat with Jenner had led to the disastrous landing and, subsequently, his death. Grieved by the loss of her beloved CO, Davis would pilot the ship back to Earth, but that was all and Laura knew it would be pointless to ask anything more.

Ridgewood was the wild card. He seemed amiable enough, everyone liked him, and he was tenacious in his interactions with the aliens. But the way he had handled the shotgun worried her... this was no ordinary civilian. He had disobeyed her directly and shown no remorse, instead being the only member of the surviving crew gutsy enough to go in search of help. And he had handled the difficulties of first contact with considerable ease. What she had mistaken for dumb optimism was a deep streak of inventiveness and she feared his intelligence would undercut her at some point.

So Christensen resolved to make friends and hope for the best. No one would know her motives unless it became absolutely necessary. She would apologize to the surviving crew at some point, regain some semblance of respect from them, and latch onto the most powerful alien she could find in the hopes of bartering her way towards a second EM drive assembly.

And while it was remarkable how quickly these aliens were learning English, she forced herself to look past the uncanny similarities between their two species and focus only on the directive. The future of DXA rode on this as did her own career. Lomi Or'dan was the best

candidate for her attention. He appeared to be career military, like her. He was the commander of his mission, like her. And she bet he had access to all the information she needed. Design schematics would be better than extra components, though she would settle for the latter since she was certain DARPA would eventually figure out how to duplicate them.

By the time she had settled her thoughts, the aliens had breezed through Rosetta Stone and she could ask for their help without slowing her speech or using hand gestures. And by early the next morning, the Aurora was in tow behind the alien ship in what Christensen could only describe as a tractor beam (if there was such a thing), both crews were heading at high speed into deep space.

That an alien race of humanoids came into existence just 25 light years away astonishing. Even more outrageous is the fact that they share 99.99% of Humanity's genetic code.⁴⁷ The two species are identical enough to reproduce without risk of birth defects and save for hair, skin, and eye color, there is little to distinguish one race from the other. Both have written and spoken languages, both live on planets situated within the "habitable" zone of their respective stars, both have highly advanced social and political structures, and both have culture in the form of art, music, and literature. If not separated by 25 light years, the Keldar might simply have been another ethnic group on Earth, duking it out for land rights or a religious crusade.

So how was it possible?

Aaron's mind chugged at a million miles a minute during those first hours with the Keldar as they sped into the inky black of space. The confirmation of intelligent life living far outside his solar system would deal a crippling blow to many of Earth's religions. Even his own faith had always somehow assumed that Humans were the apex of God's creative abilities. As a scientist, he didn't believe it for a second... it was simply impossible that in a universe of near-infinite stars, Humanity would be the only complex life form. But faith demands that one believe the impossible and Aaron had always juggled both viewpoints in a tense debate at the back of his thoughts.

Now that debate was over and faith had lost. And as if to rub salt in the wound, this extraterrestrial life was not just intelligent... it was *more* intelligent. The Keldar possessed technology superior to anything developed by Humans and there was no doubt that their mental capacities were formidable. They had acquired a basic command of English in under three hours and were learning more with each passing conversation.

It begged a fundamental theological question in Aaron's mind: did God create this intelligent life and if so, why was there no mention of it in the Bible? What reason could God

⁴⁷ Ridgewood, Aaron. "Keldar: An Introduction." Random House, 2010. Pg. 3-4.

have possibly had to keep their existence unknown? Or had he told Humanity about the Keldar at some point and it was conveniently censored from the Bible by the early church? The absence of a motive on the part of God filled Aaron's mind with doubt. There *had* to be a reason why. God did everything for a reason. *Everything*. So what was the purpose of the Keldar? To make Humans feel stupid for all their petty wars and intolerance? What lesson was he supposed to learn from them?

The more Aaron thought about it, the more he realized how rare the situation was. There was absolutely no precedent in science for parallel evolution of this kind occurring... two nearly identical Humanoid species 25 light years apart? Out of the millions of stars in the Milky Way, the nearest one with a habitable planet had people living on it? Come on! The evidence almost *certainly* pointed to creationism, but the mystery of God had only clouded itself further.

Then it struck him: what about a common ancestor? What if one race had somehow travelled through space and colonized both worlds? There had been theories about ancient aliens for years revolving around the pyramids and the Maya... all the unexplained precision engineering and monumental tasks that prehistoric man was able to complete with limited technology and brain power. Aaron had summarily dismissed them as hoaxes, meant to undercut the wonder of mankind's achievements. But what if it was true?

He was no astrobiologist, but panspermia, as it had become known, was commonly accepted in the scientific community as the most probable origin of life on Earth. Even Francis Crick, who had discovered the structure of DNA, was a proponent of the theory. The modern discovery of amino acids and fossilized protozoa in asteroids from Mars confirmed its possibility.⁴⁸

But the notion of a common ancestor threw more even doubt into his faith than anything else. If the Keldar *were* Human (or more appropriately, Humans *were* Keldar) and both species descended from a single ancestor millennia ago, then that would simultaneously dispel creationism and Earth as the center of God's priorities.

So how *did* God fit into all of this?

⁴⁸ http://www.washingtonpost.com/wp-dyn/content/article/2010/04/30/AR2010043002000_pf.html

The only way to find out would be to study Keldar history and Aaron resolved to ask someone about it. Christensen and Lomi were up on the bridge, comparing notes on space travel and after the rift he'd caused the day before, Aaron was reluctant to interrupt her. She had shown herself to be steely cold despite the deaths of the crew and Aaron wondered if it was simply her game face or if she was so shell-shocked that she couldn't express herself anymore. He guessed it was the former.

Davis was checking in on Sorenson in the alien ship's medical bay with the purple haired lady whose name he could not pronounce yet. Keldar had proven mercilessly difficult to learn, full of glottal stops and 'k' sounds, its grammar lacking established patterns.

The other Keldar were busy milling around, performing their duties and saying quick, efficient hellos as he passed by. That left Brec Shandur, the man whose head he had smashed. He was no less intimidating in close quarters than he had been at the base of the waterfall. A preoccupied scowl was plastered across his face at all times and he had purposefully avoided the Humans. Now he was alone in conference room of some kind, sitting in a chair mounted up against a large row of windows.

"Hi," said Aaron. "Do you remember me?"

The alien glanced up at him, then back out the windows. There was a small bandage on the side of his head where Aaron had smacked him with the stone and he rested his chin on his palm as the stars whizzed by in blooms of color. Aaron noticed for the first time what looked like a tattoo, dark red on the alien's skin, visible just above the collar line of his body armor.

"I was wondering... um... do you know anything about your people's history? I was trying to come up with several different hypotheses for how our species came to be so similar and... and I thought you might have some insight."

Brec immediately rose from the window seat, shouldering past Aaron and out of the room.

"OK... another time then."

He had expected as much. Why Brec had decided not to speak with the Humans was a mystery. Aaron had already apologized twice for the incident with the rock and Brec had even taken some teasing from the other members of the Keldar team when they saw how much

damage the little Human had caused. But his silence spoke volumes... there had been a more serious trespass somewhere along the line and Aaron was determined to find it and make amends.

He sat down on the window seat, pulling the tiny Bible from his pocket and flicking through the pages, tissue paper flowing under his thumb. But there was nothing to read. Nothing in these thousands of pages could comfort him at the moment. And so he tucked the book back into his pocket, patting it gently through the fabric of his bodysuit, and stared out the window at the stars, dozing off suddenly after the worst 48 hours of his life.

He missed his dad.

Brec Shandur is massive. That is the only word that can be used to describe him. While other Keldar are taller and stronger, there is a density to him that seems to repel people. He stands in front of a large plate glass window overlooking the Shanada spaceport, watching ships lift off, his hands folded neatly behind his back. His hair has grown out a little, but he has left it unstyled.

“I will not have it long again,” he says. The voice is uncommonly rich. “It is too much effort in the morning.” One would *never* know that a few months ago, he spoke no English whatsoever. He is absolutely fluent and other than a distaste for contractions (which do not occur in Keldar native), his speech is flawless and he could easily be an English professor at the best university in London.

“We have always been a fast learning people. All the way back to the Nikhel’d’aro.⁴⁹ This would have been... over 200,000 of your years ago.⁵⁰ Their planet was called Agrath.⁵¹ It means ‘rock’. Like your Earth means ‘dirt’.”

He turns around and strides over to the armchair. “A-g-r-a-t-h. That is right. Nikhel’d’aro has an ‘h’ here... and then apostrophes here... and here,” he says pointing. “Right. Very good. They were advanced, capable of basic spaceflight, although we do not know how.”

He looks like some kind of genetically engineered Swedish automaton with high cheekbones, an aristocratic nose, a jawline any Hollywood actor would kill for, and perfectly proportioned lips. The eyes are the showpiece, though, blood-red and discerning in their gaze with dense eyebrows. On Earth, he would be an underwear model for Gucci, plastered across fashion magazines and billboards.

⁴⁹ Literally “descended from the sun”.

⁵⁰ In Keldar years, Brec is just over the age of seven. By Earth years, he is 30, a consequence of Keldar Prime’s unusually slow orbit around its sun.

⁵¹ pr. ah-GRAHT

Here, he's considered plain, the result of low breeding by rural farmers.

"What our historians and scientists do know is that the star went supernova. The Nikhel'd'aro had little time to leave Agrath and they could not evacuate everyone... so they picked the smartest, strongest, youngest, and most beautiful of their people, loaded them onto three ships, and sent them out into space. Agrath was consumed several days later by the star."

He's pacing now, back and forth in front of the window.

"Two ships," he says, holding up his fingers. "Two ships made it to Telus, a star system four light years away that the Nikhel'd'aro had determined was habitable. The third ship... a mutiny and a revolt. It wandered off course and was never heard from again."⁵²

"On Telus, the Nikhel'd'aro tried to start over again, but without manufacturing or mining abilities, it was impossible to preserve their way of life. The ships were scrapped, computers broke, medicine was depleted and within... 150 maybe 200 of your years, they were an agrarian people leaving in farmhouses and working in mud. Little memory of how things had been."

The Nikhel'd'aro spent the next 100,000 years or so re-evolving, the memories of their ancestors turning into legend, their tools and accomplishments relegated to the world of gods and myth. By the time Humans were braving the last Ice Age some 20,000 years ago, the Nikhel'd'aro had advanced into a semi-medieval age and split into several factions.

Their ruling class, the Tal'kanor, lived in the mountains high above the plains of Telus in fortified cities of stone. An aristocracy of sorts, it is commonly believed that their earliest ancestors were the pilots of the original ships which left Agrath and the modern Tal'kanor which inhabit Telus can often trace their lineage back ten or twenty thousand years. They held a monopoly on knowledge thanks to several of their earliest members who managed to write down or commit to memory advanced mathematics. Despite the setback of devolving, the Tal'kanor were the first to regain much of the knowledge possessed by the Nikhel'd'aro and frequently abused this power among the other nations.

⁵² Both Keldar and Human scientists now theorize that this ship crash landed on Earth, its survivors possibly mixing the first hominids. While this does not preclude independent Human development, it explains the appearance of Keldar genetic markers in the DNA of fossils found in Africa as well as the markers found in all modern Human DNA.

The coastal tribes were originally known as the D'ari'anu, literally translated to mean "of land and sea". Lacking the unification of the Tal'kanor, they existed in a string of city states along the coastlines of the supercontinent on Telus. It should be noted that while they share the same similarities with the Keldar and the Tal'kanor, the Darianu have a much higher rate of mental illness than their genetic brethren. It is estimated that nearly two fifths of the population suffers from some kind of delusional paranoia.

And on the plains lived the Keel'd'aro, a play on words ascribed to them by the Tal'kanor meaning "burnt by the sun". Originally the farmers of the Nikhel'd'aro, the Keel'd'aro lived simple lives dominated by agriculture. They were ignorant and hardy, often taken as slaves to the wealthy clans of Tal'kanor and Darianu.

Until they broke free.

"That is how my people came into being," says Brec. "All three nations achieved spaceflight again and as soon as the Keldar could do so, they left."⁵³

From an historical standpoint, it is interesting to note the reevolution of the Keldar species after leaving Agrath. While the ancient alien theory of Earth's own development argues that Humans have, in some way, lost the knowledge they once had in ancient times, no such scientific theory exists in Keldar culture. It is commonly acknowledged that the migration to Telus was a stumbling block in Keldar history and most Keldar (and Tal'kanor for that matter) will state with some conviction that it was a cleansing process for their species. Even Brec, who is as prideful as any Keldar about his racial origins, softens a bit when he remarks about the massive step backwards.

"It made us stronger," he begins. His face is serious, his eyes making him even more credible. "That we had to relearn everything we had lost made us more certain of who we were. This, I *believe*. We are the children of a greater species."

⁵³ Gregory Tsouloukas, a proponent of the ancient aliens theory, has postulated in recent months about the various clans journeying to Earth and attempting to establish dominance over ancient civilizations. In his testimony before the Senate Judiciary Committee's investigation of the Gliese mission, he stated that "the body of evidence which exists to prove the Tal'kanor and possibly the Darianu visited Earth during the bronze age is overwhelming". This period in Keldar history, known as the Bril'itar (trans. Dissolution), is murky in the historical record as it occurred some 6,000 years ago and, unlike the exodus from Agrath which has been committed to myth and legend, there is still much debate around the facts. The Darianu would eventually abandon Telus as well, leaving the Tal'kanor as the sole inheritors of the planet.

The discovery and confirmation of Human existence only strengthened the Keldar self-view of panspermia. That yet another branch of the same family tree had finally found its way home brought a welcome relief to the Keldar who feared that the pestering Tal'kanor and genetically inferior Darianu were the best that their ancestors could do.

“Your people are cultured,” says Brec. “You are not advanced and you are... irmi... deficient. But you value art, expression, beauty... these are the great things. They are the best your culture has to offer. If I must find a reason to be glad to have met Aaron Ridgewood, that would be it.”

Keldar Prime

September 18, 2010

1320 hours

Shanada spaceport is not unlike a modern airport. There are terminals, a tarmac, hangars, concession stands and security checkpoints. There is even a rather large infirmary which was built during the last war with the Tal'kanor to provide immediate medical care to wounded soldiers coming off the ships.

It was in this infirmary that Aaron, Commander Christensen, Captain Davis, and Sergeant Sorenson found themselves upon landing. The other Keldar had been quickly scanned and sent about their business, but the busty female nurse in the silver bodysuit refused to let the Humans pass. She had said something in Keldar native matter of factly to Lomi and abruptly halted their passage through the spaceport.

Whether it was about quarantine or just a choice opportunity to study alien physiology, Aaron was unsure. But she was not here to harm any of them and immediately began working on Sorenson who, though now on his feet, would black out randomly.

Outside the window, snow was falling steadily and as ships descended to land on the tarmac, flurries of the white flakes puffed up and away in broad swirls under the thrusters. The Aurora looked positively sad, parked next to Lomi's command ship, a tiny vessel by comparison and with a massive hole in the top of its hull.

It was an ironic parody of the human race. Small, slow, poorly built, and with a big gap in construction.

Aaron frowned.

A medical team entered the infirmary and began inspecting them, one by one, speaking softly to one another while Lomi and brec sat on an examination table nearby and ate a lunch of some kind.

“No hurt you,” said Lomi.

“Yeah I know.” Aaron held out his arms as a technician scanned him. “You want a blood sample?”

The Keldar man looked down at him blankly.

“A blood sample? You know... you stick my finger and it drips out?” He tried to motion with his hands.

Lightbulb. The Keldar nodded and produced a silvery instrument which he pressed to the inside of Aaron’s forearm.

No prick really, though he was sure he felt *something* enter his skin.

The technician looked at the device, an instrument panel reading out something in Keldar script. He shook his head and double checked it. Then up at Aaron.

“He surprised we are the same,” said Lomi, shoving himself down off the table and walking towards the Humans. “But I knew when I see you that we are the same.”

“Yes...”

There were questions. Many many many questions. The GPS chips implanted into the other crew: what were they and why were they there? Shanika’s skin color: why was she darker than the others? Sorenson’s hair: was it dyed yellow?

Despite Lomi’s generosity in bringing the Humans with him, the Keldar were suspicious and rightfully so: the Humans looked like the Tal’kanor. Shorter, leaner... dumber. But they had no tattoos, did not speak the language, and their blood did not contain any Tal’kanor genetic markers. Either it was the elaborate ruse of an old enemy or the Keldar had to reexamine their history books and find out where these long lost cousins had come from.

The Humans were not so unified in their course of action. Sorenson, for his part, was terrified, pushing away the doctors in between blackouts and crying out for help as the silver-clad lady tried to examine his head.

Davis was shut down entirely, sitting in a chair and looking at the ship. Dejected, she wondered if it would ever fly again, how she would get home, what sized chunk of debris could have made a hole that big in the hull. There were a lot of unanswered questions and as captain, she would have to make a full report about what had caused the pressure loss. Moreover, it'd been only two days since the incident and she had found no time to properly grieve for Mitch. He'd been her CO for the better part of four years and while their relationship had always been platonic, they were far more than just colleagues. She'd driven him to the hospital when his mother had her first stroke, bought gifts for him at Christmas, and organized a small party among the Groom Lake personnel to celebrate his 50th birthday. In return, he'd gone with her to buy her first brand new car, spent hours of down time teaching her about investing and retirement planning, and on more than one occasion, had stern words with her on-again off-again boyfriend. She needed a moment to herself, in private, without bodies to burn, a wound to dress, or aliens to meet.

Laura was more skeptical. These people were obviously generous... there was no mistaking that. But what would they ask for in return? She had no doubt they would repair the Aurora and make it spaceworthy again, but at what cost?

And there was also the question of the DXA directive... she'd gotten close to the EM drive on the Keldar ship during the journey from Wratakfor, but it was shielded behind an elegant casing that had prevented her from viewing any useful parts. If her instincts were right (and they usually were), these "keldar" would send her and her crew back to Earth with a nice pat on the shoulder and a "pleased to meet you".

But they would not give away their technology. No civilization would do that. Especially one which, if she had understood Lomi correctly, had consciously re-evolved into their present state of brilliance. Moreover, there were the Darianu and the Tal'kanor, ancient enemies of these people who were constantly trying to invade, make land grabs, and steal industrial secrets.

No, they would not give up their technology willingly.

"I had to figure out a way to get them to give me the drive," she says. She stands for a moment, stretching in her orange jumpsuit and walking around the room, her shackles clanking a little. "OK so I knew Sorenson and Davis wouldn't help me and Aaron... well, he might be handy

with a gun, but asking for espionage wasn't reasonable. So I figured Lomi Or'dan was my best shot. And I figured that getting an entire Keldar ship back to Earth would be easier than trying to just get an engine by itself."

So Laura waited patiently while the Keldar doctors examined her, offering up a faint smile when she remembered to, and giving them her full cooperation. And when Lomi approached her after the technicians were done with their scans, she seized the opportunity.

"Well what now?"

Lomi smiled. "We fix your ship."

Laura looked over her shoulder at the Aurora, already being towed into the nearest hangar, a team of engineers barely visible on the floor of the massive building, waiting as it approached.

"I appreciate that," she said, nodding. "Thank you. For helping us."

"Your are welcome. When I ask to be sent to Wratakfor, Keldar council did not believe me. Your transmission. They did not believe me. They thought it was Tal'kanor... a trick."

"Oh I see. Well, we're not here to trick anybody." Laura folded her hands in her lap, looking up intently at Lomi.

"Would you meet Keldar council?"

"Your leaders?"

"Yes, yes."

"Um... sure I guess. Why not? Um... are they like... here? In Shanada?"

He nodded. "Yes. In capitol. In *the* capitol. This word 'the' is very confusing." He laughed.

She grinned back. "Well I would love meet your council. But can get a shower and a change of clothes first?" She tugged at the synthetic bodysuit, ripped and stained.

"Oh yes. Yes! I will find... *a*... a sewer."

"A sewer?"

"A sew er."

"Oh you mean a tailor. Or a seamstress." She nodded again, smiling like a teenaged girl. "We call them tailors and seamstresses."

“I see. I will find a tailor you.” He smiled at her again, looking into her eyes, and caught an orderly by the elbow to give him the order to track down some clothing.

They stood, chatting quietly and watching the snow fall on the tarmac as the Aurora disappeared into the hangar.

Aaron saw it.

So did Brec.

Both men scowled.

High above the city, in the mountains which surround the Shanada plain, there is a temple. The Keldar are not particularly religious, their belief systems revolving around a form of ancestor worship much like Shinto.⁵⁴ But the Shanada temple marks more than a simple place to pray: it is the exact location where the Keldar ship leaving Telus landed over 6,000 years ago. From the rocky perch on the ridge, one can see the entire Shanada plain to the southwest and the vast fertile grasslands to the northeast.

The temple itself sits in a small forested ravine, nestled between two giant peaks. It is a simple structure: a square courtyard surrounded by covered walkways, then a small trail through an old growth forest, a series of steps cut into the stone, and then the temple itself, a squat structure of obsidian with gold inlay on the inscriptions.

Outsiders are strictly forbidden. The Tal'kanor and the Darianu, should they ever be in Shanada, are kept under close watch to ensure they do not defile the most holy shrine of the Keldar.

Aaron was fortunate enough to see it his first day.

By the time he had emerged from his shower and changed his clothes, the infirmary was empty except for Brec. Christensen was already gone, off with Lomi to meet the governing council. Sorenson had been whisked away for intensive treatment. And Davis was back on the Aurora, supervising repairs.

Or so said the doctor with the big boobs in the silver bodysuit.

That left Brec, too honorable and kind-hearted to ditch Aaron, waiting for the Human when he emerged from the bathroom.

"Oh... is everyone else gone?" Aaron ran his hands over his forehead. His skin was dry and tight. "Do you have any lotion?"

"Lotion?"

⁵⁴ Ridgewood, Aaron. "Keldar: An Introduction." Random House, 2010. Pg. 172.

“My skin... it’s dry.”

Brec slid off the edge of the examination table and rummaged through a cabinet behind a medical workstation. He handed a small bottle to Aaron who promptly slathered the cream on his face. It smelled citrusy.

“Well I guess I should go back to my ship.”

Brec shook his head. “You will be bored.”

“It’s ok.”

Brec looked at the floor for a moment, then sighed. “You come with me.”

“Really?”

“Yes. I should spend the day alone, but is rude if I leave you. You come.”

Twenty minutes later, as the little tram slid to a stop in front of the temple, Aaron realized why Brec had wanted to spend the day alone. To the right of the temple, beyond one of the courtyard’s covered walkways, was a cemetery.

The snow fell in larger flakes, each one the size of a fifty cent piece, and there was silence as Brec padded across the snow to a large tomb made of iridescent green stone. Aaron held back, sitting on a low bench and shivering in the oversized jacket Brec had grabbed for him on their way out of the spaceport.

The alien touched the stone, knelt, then stood again, hands folded in front of him as he stared down intently at the tomb.

He waited.

And waited.

There was no way in hell he’d interrupt Brec; death was sacred in nearly every society he had ever studied and it appeared the Keldar were no exception. No, he would wait. Discipline, he told himself. Focus on the moment, be present in the ritual...

“Do you like our temple?”

Aaron started. Lomi Or’dan stood next to him in a large woolen coat.

“Um... yes. Are you already done with the council thing? And Laura?”

“Yes, yes. You will come to Rik Syanek tonight. It is winter... ahhh... solstice. Our council will have a big party. You are invited.”

“Oh... OK sure I’m game.”

“You wait here,” said Lomi, heading out into the graveyard towards Brec.

Aaron shivered a little and examined some of the carvings on the pillars supporting the roof.

“You bring him here?!” Lomi was irritated.

“Tana’a, sitani. Ga vidi kanesh!”

“Speak English near him... you are rude.”

Aaron turned to see Brec sulking in front of Lomi, looking at the ground, arms folded across his chest. “I must visit her before Rik Syanek.”

“You should not have brought him.”

At this, Brec jerked his head up and then looked to the Human. Aaron flicked his eyes away, his face flushing. “He is no harm.”

Lomi frowned. “They have been invited to attend Rik Syanek by the council. You will be there as well.”

“But...” Brec’s voice broke suddenly, cracks forming in the richness. “Kaneshset baidi’i mer Ver’un.” He was crying suddenly, trying to wipe away his tears. Aaron didn’t stare and pretended to be interested in one of the many metal plaques that lined the low wall of the walkway.

“Shana, Brec, shana... a vidi.”

Aaron watched Lomi hug him and the shorter man sobbed quietly for several minutes. No one had been there for him to hug when his father died. Except Beth, but she didn’t count. They weren’t that close. In fact, the first time he really got to mourn his father was in the showers at Groom Lake, breaking down under the water early one morning before more reports and examinations and tests and conditioning.

Just him and the hot water.

Classy.

It was as if it never happened.

Except it *did* happen and it still hurt. It hurt so fucking bad he couldn’t think about it anymore, that crushing feeling in the center of his chest reminding him every day of the things he

should have said, the things he should have done. If God took people away to teach lessons to those left behind, then Aaron had learned his: do what your parents say, make them happy, say what's on your mind.

He envied Brec suddenly. Whoever Ver'un was, Brec felt deeply for her death. Deeply and openly. There was no machismo to stifle his tears, no perception of what 'manly' men did or did not do in Keldar culture. There was simply a sense of composure despite the feeling. Aaron's emotions had been buried years ago under six feet of gay jokes, insults, abuse from Shelly, and neglect from his father. When they did come to the surface, his emotions, like zombies rising out of a grave, displaced the dirt around them and then wandered aimlessly until cut down with logic... silver bullet arguments, he called them.

How easy it must be for Brec to have feelings which, like a river a little full because of a rainstorm, were allowed to run their course outside the boundaries of 'normal'. Aaron had known for years that his emotional coolness was something that needed improvement. Growing up on the ranch, there had been no freedom of expression. Only girls cried. Nice young men who were good Christians prayed and were strong so that their families could depend on them.

He laughed a little, his breath puffing in the cold air.

How much damage had *that* philosophy done? Beth had leaned on him throughout the whole of Paul's death and he was a benefit to her. But what he he gained? He was no closer to his stepmother than before and in his zeal to be strong, he had forfeited the very best time to grieve his father's death. He had lost his first girlfriend because of the same 'strength' in 2007. Melissa broke it off after two months of intense dating because Aaron could not speak how he felt. He could analyze it for days, but not express it.

2009 and Sean had said something similar, only it cut to the core this time because the relationship with Sean was intensified by the secrecy. Just to be in the same room with him, breathe the same air, cuddle on the sofa and watch a movie was intoxicating. Aaron had never been certain if it was actually Sean or the taboo of being with a guy. Either way, the feelings remained buried deep under years of shame.

Aaron rubbed the back of his neck in the cold silence of the graveyard, irritated. He was *not* gay. He could not be. It was not biologically normal and he would not allow himself to feel its pull.

Then Lomi was heading back towards him, Brec in tow.

“Let us return. We will find you clothing for tonight.”

“OK.” Aaron followed behind, hanging back to fall in step with Brec. “I’m sorry for your loss,” he said quietly.

The Keldar paused and looked at him, eyes still wet as the giant flakes of white fell between the two men. “How you know?”

“We do the same thing where I come from,” said Aaron, motioning to the graveyard.

Brec tried a smile and looked at the ground, white snow sticking in the blood-red buzz atop his head. “It is my first Rik Syanek without Ver’un.”

Aaron said nothing for a few moments, watching the face of Brec. The harshness was gone, replaced with a soft, pliable pain, the kind that was still fresh despite what Aaron had assumed was a long time since Ver’un’s death.

“It’s alright.” He smiled a little and turned to follow Lomi, Brec trailing behind after a moment.

And for a brief instant, Aaron could swear he felt Brec’s eyes on him.

Rik Syanek is the winter solstice festival on Keldar Prime. The closest thing Humans have is New Years, although the Keldar New Year is celebrated separately.⁵⁵ For one evening, almost all of Keldar Prime shuts down as festivities sweep through the cities.

“It comes from the ancient Nikhel’d’aro,” says Aaron. He is standing now, staring out the windows of his loft into the rainy Seattle skies, one hand braced against a concrete beam. “As ‘people of the sun’ they would try to ward off darkness. Now this is like... ancient times, before Human history. Fire celebrations, lamps, that kind of stuff. Most people today do like an all night house party.”

He turns around and smiles. The room fills with apple pie and Chevrolet.

“It’s a different day on every world... I don’t think the Tal’Kanor or Darianu even celebrate it anymore. And Keldar Prime is super special because it comes twice a year due to the orbit.”

Traditionally, every house puts out a small oil lamp on its front doorstep to ward off evil spirits that lurk in the darkness. Modern Keldar who attend house parties will step over the lamp to signify stepping back into the light as the days get longer. The largest parties in the massive northern cities start at dusk in the downtown plazas, then spill into the streets and by midnight, have confined themselves to private residences. The Keldar being an unusually viceless people, more alcohol is consumed during Rik Syanek than on all other days of the year combined.⁵⁶

“And everyone dresses up,” says Aaron, bounding over to his closet. “I kept it... Lomi bought it for me because our flight suits were looking kind of gross.”

⁵⁵ Since the Keldar year is nearly four of Earth’s years, Rik Syanek is celebrated twice during the planet’s orbit around its sun. The orbit is an extreme ellipse and as such, the planet passes very near the star twice, initiating hot summers, and distantly from the star twice, resulting in the winters. Seasons occur globally unlike Earth where the Northern and Southern hemispheres are reversed.

⁵⁶ Shan’i’i, Petall. “Alcohol Consumption by Region: Seasonal Year 6342”. Office of the Agricultural Administrator, Keldar Prime. 2010.

He takes out a shirt made of thickish black material with a mock turtleneck collar and a narrow, plunging V-neck slit in the front. It's an organic fabric of some kind, dense and springy to the touch. A long silver stripe runs across the tops of the shoulders, down the sleeves, and finishes by encircling the hem at the wrist. A matching pair of pants is hung on the coat hanger.

"This is casual clothing. Lomi invited us to be his guests at the Thanor'kan... it's like a uh... like a state dinner, I guess. The council throws it every year and all the top brass get invited. And I have to explain this... it was *unprecedented* that we got invited. I mean, not even a Tal'kanor or a Darianu have ever been allowed to attend, so it was a big deal."

He hangs the clothes in the closet and scratches Sherman's ears on his way back to the sofa. Barefoot, jeans, and a faded old t-shirt that threatens to fall apart at the seams over his skin. The makeshift mochas, the massive Doberman, the vintage furniture... the only visible electronics are an iPhone and a MacBook Air, stuffed under a stack of magazines. Dwell, Sports Illustrated, and a recent issue of National Geographic still in the plastic wrapping.

"Laura was able to swing it during her meeting with the council. No matter what anyone tells you, she's a fabulous negotiator."

Back in Florence, Christensen disagrees. "I'm not fabulous," says Laura. She's standing in the makeshift cell, orange jumpsuit rustling as she moves. "He gives me more credit than I deserve on that one. I met with the council, told them we had come in peace for all mankind, and that we would like them to send back an ambassador. It was a simple conversation."

She moves away from the wall where she is standing to sit on the edge of the table, letting her legs hang off into the air.

"See I *knew*... I just knew that they wouldn't send back a diplomat in our rickety little spaceship. And by this time I've got Lomi in the palm of my hand, so he's agreeing with everything I say. Poor fool. He was a scientist first, military man second. That's why they put Brec Shandur with him... now *that* is a soldier if I ever met one.

"But anyway they trusted Lomi, probably more than they should have, and agree to send him back with us and a contingent of diplomats in two of their own ships. Pretty similar to the Gliese mission in how it was designed... they picked out linguistic experts, biologists, everything. Whole meeting was done in less than a half hour and we got invited to the party"

Lest anyone think that the Keldar were complete fools to trust four stranded Americans, there were other motives. It behooved both the council and the Humans to accept the cultural exchange. While the Humans had their own agenda around the acquisition of Keldar technology, the council saw a rare opportunity to tilt the balance of power in their region of space. For nearly three centuries, war had sporadically flared up between the Tal'kanor and the Keldar. While neither clan was innocent, the Keldar had, in the last two generations or so, taken a non-aggression policy. Wratakfor was the final straw: too many lives lost and a rapidly developing distaste for war had, in the last two months, turned public opinion sharply against the expansion of the empire, regardless of the economic benefit.

So the Humans, with their ability to reach Wratakfor from whatever planet Lomi claimed they originated, presented an interesting option. Was it possible for the Keldar to ally themselves with them? If so, would the Humans send colonists to Wratakfor? The prospect was a gold mine: a younger, less developed race, eager for contact with the Keldar might just be the perfect people to create a buffer system or two between Keldar Prime and the Tal'kanor worlds. The Humans could do the dirty work of colony building and fending off the other clans while the Keldar could remain a purely economic interest.

It was a possibility not lost on a single member of the council. And as Laura stood before them, detailing how her ship had come to be stranded in Wratakfor/Gliese, each of the sixteen members saw far more than a battered little Human. They saw the linchpin for their future success.

Keldar Prime

September 18, 2010

2100 hours

It was nearly an hour before Aaron could pull himself away from the party for a moment alone. All sixteen members of the Keldar council had cornered him shortly after his arrival at the great hall and asked, in no uncertain terms, what he was going to write when he got back to Earth and if there were any lingering questions he had about Keldar society.

Tons.

No one can size up a civilization in the course of 48 hours. But the Keldar were somehow eager to make a good impression and they pressed themselves to Aaron throughout the evening, his view of the massive hall limited by their crowding. Laura was off somewhere talking to Lomi Or'dan and both Shakina and Troy had elected to stay with the ship. He was alone, struggling to understand their accented English, and credited with far more celebrity and influence than he actually had... he was no politician, not even a diplomat. No matter what he reported back to Kurovec about the Keldar, Humans would make up their own minds in due course.

But his report would be published. It would no doubt circulate the scientific community, the first scholastic overview of an alien race and someone would ask him to collaborate on a textbook. Scientists all over the world would read his findings, draw conclusions, and base their own studies of the Keldar off the foundation *he* laid. If he said the Keldar were vegetarians (which they were not), all future studies would revolve around the consumption of plant products and little attention would be paid to their meat industry. There could be no mistakes, no oversights, no slips: he was the genesis of cross-cultural knowledge between the two species.

That was power.

And horrifying responsibility.

Aaron's pulse was racing by the time he burst through the glass doors to the balcony, gulping down the fresh cold air between sips of the orange-colored wine.

Lomi noticed and followed him out.

"Do you enjoy our party?"

"Oh yes," said Aaron, his chest heaving. The heat in the room had almost given him a headache and he fluffed the hem of his shirt, flushing air to his back which was drenched with sweat. The alcohol was too strong...

"You are popular. We will send an ambassador with you."

"Good. Actually that's great. I-I can't think of anything better." Seriously, he thought to himself... after how badly things had started, this was promising.

"You should ahhhh... speak to Brec."

Aaron laughed out loud suddenly, his breath calming. "What for?"

Lomi looked at him for a moment, the deep V of his shirt showing off the paragraphs tattooed on his chest. "Did he... tell you his life?"

"Not really... he's a quiet guy."

"Ah..." Lomi smiled slightly. "What do you say? Still waters run deep?"

"Very good!" said Aaron beaming.

"When Keldar reach five years, they are married. This is arranged by our government."

Aaron caught his breath. "Oh? Why?"

"Ahhh... when Keldar first arrived here after Telus, there were... 106. We had been thousands, but Tal'kanor hunted us. Only one ship was successful." He pointed to the mountains where a twinkling light signaled the location of the temple. "It landed there, damaged... ummmm... unusable for flight. Our doctor made plan... no, made *a* plan... I have trouble with this 'a'. He made a plan to avoid... uh how do you say... um if you do not want brother and sister to have children, how do you say?"

"Inbreeding?"

"Yes, yes. She made a plan, performed blood tests, matched up the best pairs. They had children and they came of age, she did it again. It has been this way for many years and we never

have problems. Even today. Brec is from poor people.” He pointed to the mountains again.

“Farmers on the plains. His parents were not matched and he was allowed to live.”

Aaron was indignant. “So it’s a crime to not be matched up by your doctor?”

“Hmmm... not a crime. But it is not good.” Lomi turned and motioned to the room. “All Keldar... their parents were matched. When a woman is pregnant, she checks with her doctor for... ah... birth defects, intelligence, face features. If child is not above standard, she tries again.”

“You mean... if the parents don’t like the baby, they abort it? Abortion? It’s called abortion. Because you abort the fetus.”

“Abort.” Lomi shrugged. “Yes. No one wants a... what is word... disabled child. But Brec... his parents did not do that. That is why he is shorter, not pretty.”

“And that’s bad?! Jesus...”

As a white American male, Aaron had removed himself from the debate around abortion since it truly did not apply to him. His position of perceived privilege and his gender left the decision outside his control. But deep down, he didn’t like it. If it was within the first month? Fine... nothing more than a glob of cells and if it was best for both the mother and the child if it was never born, he could see the logic in it. But after that... once things started to develop and it looked like a baby? That was harder to swallow.

That these people made a common practice of it and for no other reason than the baby wasn’t up to their expectations simultaneously horrified and fascinated him.

“Unmatched... is difficult to... find work, be matched.”

“So this is all eugenics...,” he said, swallowing. “Your whole people.” He took another sip of wine.

“What is this... eugenics?”

Aaron sighed. “Selective breeding. Ummm... you breed people for the best possible traits... for a desired outcome. Like taller or green hair,” he said, motioning to Lomi’s hair. “I mean, if you’ve been doing this for 6,000 years, it explains a hell of a lot. But...”

Lomi looked at him. “You do not like this.”

“Oh no,” said Aaron, holding up his hands. “It doesn’t matter what I like and don’t like. But on Earth, that wouldn’t fly. At all. Guaranteed. You’d have so many protests and shit... But why not just genetically engineer a baby?”

“Sorry?”

“Why not just pick the genes you want... like in a computer or something, combine the egg and sperm, and then plant the egg in the mother?”

Lomi shook his head. “No, no, no. That is not... natural. We pick the best natural variety and throw away the rest.”

Aaron was about to argue, but thought better of it and closed his mouth. Humans had done the same thing to plants and animals for years. Dogs especially were the result of hundreds of eugenics experiments, all leading to different breeds and shapes and sizes and colors. No one seemed to have a moral problem with that. Why should they feel differently about doing it to people?

“So who was Ver’un?” He finished his wine and set the glass on the edge of the balcony railing.

“Ver’un was wife to Brec. She died in battle with Tal’kanor. At Wratakfor. 193 days ago.”

“I see.” Pieces were beginning to line up in Aaron’s mind... Brec’s sadness, his insistence on visiting her tomb today, his icy suspicion of Humans. “Do you have a wife?”

Lomi smiled for a moment. “Yes. She is Pel. And two daughters, Dan’aa and Gi’inu. They live in Bentu... far north. I must live here... to work.”

“That’s terrible!” Aaron pictured two young girls, maybe 13 or 14, growing up without their father. Only phone calls or whatever they used. “You don’t even get to see them on holidays?!”

The Keldar laughed. “You are far more important than another Rik Syanek at home. I talk to Pel today and she agrees. But I miss her... and my daughters.” He was silent for a moment, staring at Aaron. “And you? A man? A woman for you?”

“No, no.” Aaron thought to dodge the question, then thought better of it. “Not right now at least.”

“I will be back.”

Aaron nodded and breathed deeply, feeling the air chill his lungs as Lomi wandered back through the door. Systematic abortion and reproductive marriage based on genetic compatibility... his report would be a gold mine.

“Clear tonight,” said Brec.

Aaron started. He hadn’t seen the other man come out of the hall. “Yes... very clear.”

“Soon... ahhh... fireworks,” he said, pointing to the capitol spire, glittering in the distance.

“Oh... that’ll be nice.”

They stood in awkward silence as Brec tried to think of something to say.

Lomi had warned him about not offending the Humans’ sensibilities, but Brec had his own feelings to contend with and they had gotten the better of him, especially on this day. The skirmishes at Wratakfor over the past year had taken his wife and his deployment to that system had been nothing short of miserable. Lomi had even requested to have Brec put under his command, hoping to ease his protege’s pain as he dealt with the death of Ver’un. And despite Lomi and Brec’s close relationship, Brec had remained inconsolable and taken out his rage on the first non-Keldar he found.

But that had been Aaron, not a Tal’Kanor, and his anger was misplaced. He thought back to their hands touching, the pain searing across his temple from where the little man had struck him with the stone. It made him smile.

Aaron, for his part, was sorting out the inevitable conflict. For the millionth time, his mind questioned his body’s desires. It was a tired argument, one which he wanted desperately to solve, but never seemed to have adequate time. Was God real? Were his morals within the code of law that God had laid down? If God wasn’t real, what then? What should he do? Who should he love?

25 light years and his problems hadn’t changed at all. It soured his image of home. Earth was so divided and messy compared to this shining, beautiful city filled with shining, beautiful people who didn’t have such stringent moral compasses. No one was at odds here, a homogenous society which had a common goal: survive against the Tal’kanor. Or at the very least, differentiate themselves *from* the Tal’kanor. If only Earth had a common enemy.

Not even an enemy... knowledge of the very existence of the Keldar would gel Humanity in ways no other event could.

Wishful thinking.

“Do you have a wife”

“Huh?” Aaron was caught off guard. “No, no. Why is everyone asking me if I’m straight?”

“What is straight?”

“Um... heterosexual...”

Brec’s blank stare spoke volumes.

“You’re either gay, straight, or bi. Gay is if you like guys, straight is if you like girls, and bi is if you like both. You know? No?”

“What are these words?”

“I don’t know... it’s...” Aaron shrugged. “It’s how you categorize sexual behavior.”

“Why?”

Aaron’s eye grew wide as he realized the probable extent of Brec and Lomi’s relationship. “I-I... I don’t know.”

“You Humans are strange to me. You make divisions where there are none.”

“But there are...”

“No, no... there are not. If I want you and you want me, then we want each other. That is all.”

Aaron nodded. “I see. But you get married.”

“Matched is a better word.” Brec nodded, watching the Human’s eyes intently.

“Well don’t you have rules about monogamy? You know, only having sex with one person?”

“Why?”

Aaron laughed a little, exasperated. “Because God says it’s wrong to have sex outside of a marriage.”

Hearing his own voice say it aloud, Aaron suddenly realized how stupid it sounded. Monogamy by choice was a beautiful thing, but to attempt it as part of rule-following was nonsense.

Actually, now that he thought of it, God said a lot of things that didn't really make sense. If nothing else, 25 light years had given him some fresh perspective.

"What is this god?"

"You know... the thing that's greater than all of us... he created the universe. He wants us to do the right thing. He loves us... God? No?"

"I think I understand." Brec moved to stand behind Aaron and breathed in the smell of the Human. Speed Stick... the curious little device he had found during his initial tour of the Aurora the day prior. A green, waxy, perfumed thing with a dial at one end. It was strange that these people smelled at all, but Brec found it mesmerizing as the fragrance poured off into the air with Aaron's body heat.

"I want to know more about your god," he said over the Human's shoulder and into his ear. "This feeling... when we are around each other. Is that also god?"

Aaron was breathless suddenly, his heart pounding in his chest as he could feel the warmth of Brec's body heat in his personal space. "What feeling?"

"This... what we share. Is this god?"

Deny it as he might, Aaron knew *exactly* what Brec was referring to. It was the lightness in his chest... that electrical current he had felt when he had first touched Brec's hand standing by the bank of that pool, the mist of the waterfall spraying over them both in the hot pink sunlight. It had sent his heart fluttering up and into his throat and, despite his repeated attempts to squash and compress the flood back into its original disciplined channel, he wanted more.

He *needed* more.

"Maybe... depends on how you interpret things... what you believe." His voice was a little shaky. "I can tell you sometime."

"I am... having party tonight. At my home. You should come."

Aaron turned and looked at him. The face was softened... friendly eyes, wide and happy, and a smile. The soaring sensation in his chest was there again, his breath shallow, his pulse pounding in his head, fingers tingling.

“Will you come?”

“Well... I... I-I have to get back to the ship and... and Captain Davis said they were almost done with repairs, so we’ll have to leave soon and I...”

Brec was looking down, biting his lower lip, nodding.

Aaron couldn’t stand it... watching the perfect white teeth dig into that full lower lip. It drove him instantly mad and not knowing why, he touched Brec’s shoulder, his fingers lingering on the fabric.

“I’ll be there.”

Instantly, Brec’s demeanor changed. He stood up tall, grinning down at Aaron and moved forward, deeper into the Human’s personal space. It was a show of confidence and Aaron stood his ground, anticipating a pithy remark as they almost touched.

But before Brec could speak, massive plasma fireworks soared upwards from the top of the capitol spire and erupted in the sky, sending rivers of color over their heads. Explosion after explosion, reflected off the white snow as the entire crowd moved out to swarm them on the balcony, cheering and drinking.

Aaron made a mental note not to stay out too late; he'd already dropped Laura back at the ship where Davis was finally taking a break, laughing hysterically with two engineers as they shared a bottle of wine in the engine room. Repairs had progressed at a lightning pace... the hole in the hull was gone, the galley was cleaned up, and all of the internal electrical systems were functioning once more.

Impressive.

"...and my coworker at the time is obsessed with anal sex, right? Does that translate? OK good. So he convinces his girlfriend to try it... and he's fucking her in the ass in the dark and she's like 'oh my God... I have to go home!' and leaves. And he feels something on his dick so he turns on the light and there's shit and *corn niblets* all over his dick and the carpet. CORN!!! HAHHAHAHAHAHA... and the best part... oh my God, the best part... is that a few days later, he gets a *urinary tract* infection from it. BAHHAHAHAHA!!!"

Shanika and the two engineers collapsed against the antimatter core laughing uncontrollably, wine sloshing out of the paper cups in their hands. The carpet was littered with paper cups, empty bottles, and wine stains.

"I see the party made it here, too," said Aaron. He was glad to see her smiling.

"Aaron!" Shanika stood up and lurched forward to hug him, her free hand sliding down over his butt. "Aaron this is Enfir and this is Litani... the two funniest men I have *ever* met!"

"More drink?" said Enfir. He was lanky, red-faced from the alcohol.

"Yes PLEASE!"

Aaron grabbed Shanika's arm. "Hey are you OK?"

"Me?! I'm fine! They ain't gonna hurt me..."

"No, no, no... are *you* OK?"

She smiled at him. "Thank you for asking. Yeah... I'm fine. And to be honest, it feels good to laugh right now."

Aaron nodded. "OK fair enough. How is Sorenson?"

"He's fine. Doctor patched him up and I think he's in cabin 2 right now."

"Cool. I'm going out."

She tottered back a moment. "Oooooooooohhh... Aaron's got a hot date tonight! Who's it with?"

He smiled, heat flushing into his cheeks. "It's not a date... it's Brec Shandur's party. You know... the guy I met in the woods?"

At that, Enfir perked up and grinned broadly, his purplish hair glowing against the lights of the antimatter core. "Brec like you."

"I'm sorry?"

Enfir nodded. "He like you much. He ahhh... he... act bad, but he like you."

The engineer's speech was slurred and Litani was starting to hum something.

"Oh another round!" squealed Shanika. "You have to sing every time you drink!" She held out her cup and Enfir filled it to the brim with the orange colored wine. "Have fun and be safe!"

Aaron smiled and left them in the engine room, a chorus of dissonant music and high pitched laughter. He knocked gently on the door to Sorenson's room, then popped it open to check inside. Troy was in the bunk, the female doctor in the silver bodysuit sitting on the lower bunk, reading over a glass tablet device.

She looked up. "Hello."

"Hi. Is he OK?"

"Yes, yes," she said in a hushed voice. "He sleeps now."

"OK. Keltakni Rik Syanek."

She smiled broadly at him. "Praja. Keltakni Rik Syanek."

He closed the door as he backed out into the hall again. The return of the Aurora to normalcy was distracting... so much had been damaged and Aaron realized that things he didn't even notice before had now been replaced or removed entirely in the course of repairs. It was a miracle the four of them had survived.

Christensen brushed past him in the corridor. "Hey hot stuff."

She was drunk off her ass, giggly and had chatted endlessly the entire way back to the Aurora, clinging to Aaron's arm as she stumbled in the snow. He liked her this way. She was more fun and quite pretty when she genuinely smiled.

"You sure you don't want to come to the party? Lomi will be there, I'm sure..."

Laura waved him away. "No, no... go. Have a good time. Enjoy yourself. Forget all the stress. You deserve it, pretty Aaron." She kicked off her shoes and opened the door to her quarters. "I'm going to bed."

"Goodnight then."

"Goodnight."

The tram stopped and people poured out, chattering loudly in Keldar native and splitting off in various directions. Brec's home was a small cube-like structure built onto the side of a hill that overlooked a pine forest and then the city off in the distance. There were others like it, but Aaron got the feeling this was not the normal way people lived here... most lived in the city, high up in Shanada's glittering towers.

He stepped over the oil lamp on the front stoop and knocked on the door. Did they knock on doors here? There wasn't a doorbell anywhere...

The door opened and Brec was there.

"Aaron Richworld!" He grabbed the Human around the waist and dragged him into the house where twenty or so Keldar were all gathered... naked.

Or close to it.

"Oh my..." Aaron felt his face flush red hot. "I-I didn't realize..."

"I should have said... this is formal party."

"Looks like I'm overdressed." Underwear models wore more clothing. "Why is everyone... um... naked?"

"It is how we show our lives."

Aaron looked around, trying to tear his eyes away from the bare skin long enough to actually focus on the tattoos.

Lomi was there, his body covered in a smattering of script and pictographs.

"Aaron!" He stepped over a pillow on the floor and marched over, glass in hand, a pair of form-fitting underwear his only clothing. "Shut a door! Is cold!"

Brec closed the door and warmth washed over Aaron

“I forget to say... formal ah... event... we wear almost nothing... to show tattoos.”

“Yes, I just found that out,” said Aaron, his ears burning as he felt Brec behind him. He had tried not to look. “But why?”

“They are achievements. Here... you look.” Lomi pointed to the seal inked over his heart. “My wife. House of Her’una here... and her name here. My daughters here. And this!” The long design down the inside of his right forearm. “This is work.” He read each word of the script aloud. “Za’an... dir... Pli’ituk. Academy of Science. Kel’daro Masta. Keldar Starmada.⁵⁷ And award I received last year: Contir dir Shanada. Favorite of Shanada. Is given by our council one time a year for achievement in sciences. I receive it for your signals you send from Earth.”

“I should leave...” Aaron turned to go and stumbled over the pile of shoes and clothing at the front door.

“No, you stay!” said Brec catching him. “You stay and eat and drink! But you must remove...” He motioned to Aaron’s clothes.

“No...” His torso was burning up where Brec’s arm had touched it and he was staring at Brec’s chest. The red ink swirled in a pattern of tattoos that cascaded down over his body and disappeared into the waistband of his shorts only to reemerge, snaking down over his legs and ending just above his ankles.

“Yes. It is rude to wear clothing at formal parties.” Brec suddenly stepped into his personal space again and lowered his voice, using his fingertips to tilt Aaron’s face up towards his own. “Please... you stay, meet my friends, we will talk... about this god.”

Aaron hesitated for a moment, then began taking off his jacket, shirt, and shoes, folding them into a neat stack and placing them in a corner near a planter. He had been to an underwear party a few years back when he was dating Sean. The night had ended in a threesome.

But no such tomfoolery was happening here. The Keldar were astutely professional and Aaron felt more self-conscious about not having any tattoos than he did about wandering around in his underwear.

⁵⁷ There is no direct English translation for the word ‘masta’. Given the Keldar military’s intense presence in space, they were labeled as the ‘Starmada’ by Anne Pewter in her first appearance on *Good Morning America*.

The house was certainly nice enough... there were wood floors, concrete walls, and lots of glass.⁵⁸ A large living room faced a set of glass doors, a snow-covered deck, and then a sweeping view of the city. The kitchen and eating area was to his right and several chunks of meat hung above a large circular fire pit, cooking with some kind of sauce being brushed over them by an obviously pregnant young woman. And to his left was a staircase leading down to what he presumed were bedrooms.

“Have you been ill?” asked Lomi, staring at Aaron’s body.

“No... why?”

“You are too thin! Hahahahaha!”

“Come.. we get food.” Brec draped a heavy, warm arm around Aaron’s shoulders.

Brec guided him to the kitchen where someone was handing out large slabs of a thick, hearty bread. Aaron held it in his hands for a moment before breaking off a corner to taste it.

Thick hearty bread. A little dry. Dense. Sprouted grains.

“No, no, no,” said Brec. “Like this.” He grabbed the slice from Aaron and passed it up and over the cluster of people gathered in the kitchen. It reappeared with a heap of diced vegetables, a dollop of some kind of cream sauce, and a little pile of what looked like salt, neatly arranged on its surface.

Aaron watched as Brec deftly took it and motioned to the woman tending the meat over the fire. She turned the rack with a large fork-like utensil, found a nice chunk, and sliced it off with a curved blade.

“Has that been cooked to 160 degrees?”

“Sorry?” Brec was confused as he handed the Aaron his dinner.

“Nevermind.”

Aaron had a thing about raw meat... it disgusted him. What everyone else called ‘juice’ in a steak to him looked like blood, dripping out of the meat and onto his plate. It revolted him to the point that he never ordered steak at restaurants because it was either undercooked or, when he requested it well-done, the chef would get vindictive and burn it until the meat was dry and

⁵⁸ The Keldar do not use concrete, but rather a material made of plant fibers and gypsum. It is treated in a chemical process and produces thin, strong walls that are load bearing and lightweight. It is a primary component in their skyscrapers which can reach over a mile in height.

tough. The only person who could ever manage to cook a well-done steak correctly was, ironically, Beth.

It *looked* cooked. But there were other questions... what animal was this? What if it was a person and they were cannibals and no one had said anything? What if the animal had worms and the Keldar had just somehow developed a resistance over thousands of years? What if they didn't have a resistance and they all got food poisoning?

It was steaming and as he watched the pregnant woman baste the meat, he noticed that the sauce smelled like nothing he'd ever smelled before. Herbal, buttery, and... something else... no doubt some plant extract unique to this planet.

Hesitation. Laura had advised against eating local cuisine until pathology could be run to ensure there was nothing toxic to Humans in their diet. But he'd had nothing but MREs since the start of mission and he was dying to eat the fragrant meal in his hands. He *was* hungry. That was a good excuse, right?

There was also the wine. He'd already had plenty of that. So had Laura and everyone else and no one was worse for wear.

He picked up the meat in his fingers and took a bite.

Aaron was more than drunk by the time the last few Keldar started getting dressed and heading out the front door into the snowy cold. He stood, wavering back and forth on his bare feet, watching the coals in the fire pit smolder down. The meal was outstanding... like nothing he'd ever tasted before and he wasn't dying yet. No gut bomb, no acid reflux, no nausea.

The wine had been another story. Delicious to the point where he drank too much. His lips were a little numb and he consciously folded his hands behind his back to keep from getting too friendly.

All he could think of now was his tattooed host, that *fabulous* fuck-me body, and the dirty, corrupt, vile things he wanted to do to it.

He tried to remember his way back to the spaceport and the Aurora... there were three different trams he needed to take. He *had* to make it back before he did something he would regret. Aaron thought back to his Eastern Philosophy class in grad school: right thoughts, right words, right actions. It had been the absolute foundation of Zoroastrianism and later Buddhism. His mind had betrayed him, but he could still control his words and his actions, even drunk.

Brec was cornered by a colleague who was peppering him with questions about something. Perfect. He would slip out. No need to say goodbye. There would be time for thank you's tomorrow. And he could always say that Brec was simply too drunk to remember him leaving, though the Keldar seemed to hold their liquor far better than he did.

He slipped past the group of females chatting as they pulled on long coats over the tops of their dresses. The oil lamp was still burning strong and the planet had rotated considerably,

revealing a small nebula that pulsed a rich purple and red color in the night sky. The city was bathed in shades of pink as the light reflected off the snow.

But the bitter cold changed his mind. In his rush, he had forgotten his jacket and he hesitated long enough that Brec caught him on the doorstep as the last guests were ushered out.

“Where do you go?” asked Brec, his hand gripping Aaron’s forearm.

“I have to go back... *to my ship*. To the ship, to the ship. I can sing that, you know.”

“You should not go. It is very late, you do not know our city, and it is dangerous.”

Aaron felt himself pulled back into the warmth of the house, the door closing behind him, as Brec led him. He shook his arm free and stood up straight puffing out his chest.

“Listen, mister man,” he said, poking Brec in the chest. “I can take care of myself. I’ve been drunker than this and in worse situations.” He braced his hand against Brec’s shoulder. “I promise, I’m fine.”

The feeling of the Keldar’s skin under his fingers lit him up instantly and his hand roved a bit. The oils on the surface of their skin were mixing... and this close to Brec, Aaron could smell him. It was dark, some citrus, fresh sweat, water.

“We have crime. Just like your people. You should stay.”

Aaron hesitated, his hand still on Brec’s shoulder.

“Yeah?”

“Yes.” Brec moved in closer and looked down at him. Two glasses of wine and he was intoxicated; what a fragile little species these Humans were. How they had ever evolved spaceflight was a mystery.

“Don’t stare at me.” Aaron was frowning a little and looking away, his arms crossed.

“Why should I not?”

“Because... I don’t like people staring at me. It makes me think there’s something wrong with my face... and I know I have these scars... But it’s rude and it’s the way I am.”

“You think you are ugly?”

“No. But... I don’t know... I’m just... self conscious.”

Brec moved even closer. He could feel the heat radiating off the Human’s body, see his pulse flexing through his neck, watch Aaron’s green eyes change into black pools.

He could have him. Right here, right now.

Aaron was not immune to the attention either and tried to think through the haze of alcohol. Maybe he should stay... Brec would be ridiculously good company. Physiologically, they were practically identical to Humans which meant they had all the same parts and Brec was quite tall which meant tha-

Something clicked inside. God help him, he couldn't do this. The alcohol was coursing through his blood and he wavered, his balance off.

He averted his eyes, stepping away and letting his hand slide off of Brec's skin. This was ridiculous. The devil's work. Well, Brec certainly was *not* the devil. In fact, Aaron didn't necessarily believe in Satan or in Hell.

But he did believe in wrongdoing and he was about to do some **serious** wrong.

"Where is my jacket?" he asked, his voice hushed.

"In ah... ah..." Brec snapped his fingers a few times trying to think of the word. "Room with sleep... ah... bedroom. In the bedroom. There," he said pointing down the stairs.

Aaron turned and grit his teeth, padding softly downstairs, his fingers trailing on the wall for balance.

The bedroom was dark and he fumbled putting on the North Face jacket which had been draped over an ottoman of some kind, struggling with the zipper. The more he thought about it, the more he felt it would be best to leave. No explanations, just a well deserved thank you and then back to the ship.

"Please stay."

Aaron leapt. Brec had appeared suddenly in the door, his voice cutting into the silence.

"I can't."

"There are no further trams this night. And I do not want you to walk..."

Aaron's heart sank. There was another bedroom next door, a guest bedroom with a smaller bed and no furnishings. He could sleep there and that would be the end of it. There would be no discussions, no arguments, no flirting.

He turned around, Brec's massive bed filling the corner of his eye. "I will stay," he said, moving towards the door. "Excuse me." He couldn't look at Brec. He *would not*. No matter what. He set his jaw and looked at the floor.

It took Brec a moment to realize what was happening before he moved out of the doorway and let the Human pass. This was not how he had anticipated the night going when he had visited Ver'un's grave that afternoon. He had pictured himself solemnly grieving his way through the Rik Syanek, calling it an early night, and coming home to honor her memory. Or her potential. Whichever he missed more.

Then the Human had turned around and looked up at him.

"Thank you."

"Yes," Brec managed. "You are welcome."

As he watched Aaron disappear into the second bedroom, Brec felt the urge to grab him, hug him, just *feel* what he felt like. Something about Aaron brought him back to the colored world instead of the gray in which he had lived.

He caught Aaron's arm before he could close the door.

"What?"

Without thinking, he flung Aaron roughly around, pinned his shoulders to the wall, and kissed him.

“I remember the first time I realized I was attracted to guys,” Aaron says, arms folded across his chest tightly. He is leaning against the edge of his kitchen counter, Sherman stretched out and napping near the FBI agent in the doorway. It is pouring rain outside and there is water running down the windows.

“I was maybe 13, home one summer from Living Grace and dad took me to out to lunch at this really nice restaurant in West Seattle. And we were driving back that afternoon with the windows down in the truck and there were these two guys roller blading up the sidewalk next to Alki Beach. And they were all buff and tan and had their shirts off... really hot guys. And I remember thinking to myself... ‘my God... they are *so* beautiful.’ I mean, it was like... like a work of art or something.”

He speaks quickly, his arms gesturing in broad arcs.

“But I couldn’t say anything about it. I mean, most kids get to ask their parents about relationships. You get to that age and you ask ‘dad, how do I ask out a girl?’ or ‘mom, what do I wear on a date?’ And you learn what the feelings are and how you’re supposed to use them and harness them and control them. And you grow up in this... this heteronormative world where every billboard and commercial and magazine ad has straight couples in it and *that’s* normal. *That’s* the way things should be. And you learn in this carefully crafted environment what being straight is all about.

“But I didn’t get that. There were these feelings... and it wasn’t that society at large disapproved or that the Bible said they were wrong. It was that I knew dad and Beth well enough that I couldn’t talk to them about it. I couldn’t say ‘hey I want to go on a date with a guy... what should I wear?’ I couldn’t even ask the question ‘what are these feelings?’

“I mean, what do you do with that? Huh? What do you do with... with...”

He chokes for a moment and regains his composure.

“What do you do with those impulses? When they are unspeakable because everyone tells you they’re not right. How do you learn what to do when you can’t even *ask* the question? And God knows I couldn’t talk to my pastor about it back at the ranch. He would have hit me. Like literally, he would have been so angry at me for even having the feeling that he would have hit me. And the ranch hands...” He shakes his head. “Some of them were so gorgeous and I had to bale hay and wrangle cows and ride out into the hills and share a tent with them. I mean, you think *Brokeback Mountain* is some kind of relic of the 60’s? I lived that shit. Only I never said anything because there is no one to talk to about it.”

What about other gay guys?

“Oh they’re soooooo confident and completely at home with it, aren’t they?” he says sarcastically. “And they don’t *want* to discuss it. Never mind that it would help every 19 year old kid who’s confused... they don’t want to talk about it. And part of it is because I don’t think even they know the answer. So let’s just pretend and fake our way through it like everything’s fine. Meanwhile, they’re all crying in the privacy of their own homes.”

He laughs a little through his tears and motions to himself. “Case in point. You know I prayed every day for five years? Every single *fucking* day before I went to bed from 13 until I was 19. ‘God, please don’t let me turn out gay’. Obviously it didn’t work. You know they say the definition of insanity is doing the same thing over and over and over and expecting a different result. And everyone loves to tell me that God won’t give you more than you can handle, but this...”

He throws his hands up and shakes his head. There are tears running down his face and he wipes them away hastily, staring out the windows for a long while.

He moves forward from his perch in the kitchen and balls up on the sofa, legs bent, arms folded so tight against his t-shirt that the fabric is stretching. The grimace on his lips turns them white.

“I don’t know what I did,” he continues, his voice shaking. “I never hurt anyone intentionally, I prayed, I went to church, I even wanted to be a youth pastor. And I tried to fix things with my dad, but I didn’t and I acknowledged to God that it was a mistake I had made. I’ve tried really hard to be a good man... but the feeling never went away.

“You know, I even thought about enrolling in one of those change ministries? I was like 18 and terrified... But if I did that, it would be admitting that I was gay... that I had a problem. It’d be just like coming out, all the disappointment from my family and friends, everything. God, we *do* put on airs in our society. Besides that, I’d already gotten accepted to UW and needed to work so I could save money for tuition. Maybe I should have done it, though. It might have prevented everything.

“Then again,” he says, recalling the night he spent with Brec. “I don’t think I’d want that at all.”

Return

“I do not feel obliged to believe that the same God who has endowed us with sense, reason, and intellect has intended us to forgo their use.”

-Galileo Galilei

Brec Shandur sits on the low bench, tugging at his collar. He is not so big now, his size not nearly as intimidating as it was. That he has even allowed the interview to proceed despite these archly private matters is unprecedented; the Keldar do not take kindly to publicizing their private lives and the concept of tabloid media is foreign to them.

“He was gone the next morning. Early. Back to his ship before I woke.” He shakes his head. “The repairs were complete. There was a hull breach, an electrical system failure, and they had no fuel. Enfir fixed all three.”

And then some. The damage to Aurora had been nothing short of catastrophic and had the ship returned to Earth instead of Keldar Prime, it might have been written off as a total loss. Such was the frugality of the Keldar that even the most damaged hull could be repaired and put back in working order.

But while the Keldar had been gracious enough to help out the stranded visitors, there was still the question of how Humans had come to possess Keldar technology, however rudimentary it was. Lomi himself had noticed the familiar components immediately during his tour of Aurora and said nothing, preferring to let the Humans tell their story and feel out their intentions through his interactions with them. Only upon their return to Shanada had he pulled the members of the council aside to tell them of his findings.

Three pieces of critical technology had been identified onboard the Aurora:

1. The EM drive assembly contained several prominent components that had been taken from a ship of some kind and it was clear the Humans knew little about them or how to use them properly. One plasma conduit was even fitted so improperly, it should have imploded. How they had arrived in one piece (and using antimatter at that!) was a mystery.⁵⁹

2. The gravity generators, though tuned to a higher frequency, were nearly identical to the ones used onboard Keldar ships.

⁵⁹ Most Keldar ships are powered by Helium-3 fusion reactors, a much safer energy source than antimatter.

3. The tachyon dish, slightly damaged from having the wrong amperage run through it, was all too familiar as it had provided the initial communication between the two civilizations. It too was possibly Keldar in origin.

Lomi's report hit the Keldar council like a tectonic plate and raised an unpleasant question: how? How had a race that was centuries behind in development come to possess the technology that had become the bedrock of Keldar interstellar travel?

The potential for an alliance aside, an investigation was launched into the "Human matter" (as the council now referred to it) to determine the exact extent of the Humans' abilities and where they had acquired this technology.

One thing was clear: no Keldar ships had been sent on any missions of exploration to Earth. Brec himself had reviewed the Keldar mission logs at Lomi's behest in the hours between his visit to Ver'un's grave and the Rik Syanek. Keldar colonies consisted of a tiny moon orbiting a nearby gas giant, several toxic planets which contained valuable ore, and the newly discovered Wratakfor which held the promise of increased food production since arable land was at a premium on Keldar Prime. Keldar schoolchildren were taught to name the five Keldar colonies by counting them on their fingers and neither the council nor the Starmada was aware of any kind of interstellar outreach program to find other alien civilizations.

That left the rival clans.

Indeed, it was not be unseemly for the Darianu, a nomadic people, to go out in search of a new homeworld. But the regression in their breeding standards had dropped their collective intelligence sharply and decentralized governmental control. It was unlikely that a formal mission was organized.

More likely was the theory that a small band of Darianu had gone out in search of the planet, found it, and either traded or given their technology to the Humans. But why? If the Darianu were planning a rearticulated attack on the Tal'kanor or even the Keldar, they would need stronger allies than a smallish race who still didn't yet possess energy-based weapons systems and showed evidence of a fractured global governance system. They'd have done better to approach the Keldar themselves and ask their ancient blood-relatives for help.

The evidence stacked much more favorably against the Tal'kanor. First were the humans themselves who looked remarkably similar (albeit with different hair and eye color) to the Tal'kanor. Short in stature, leaner in build, and no tattoos which were the hallmarks of Keldar breeding. Was it possible they were lost spacefarers, maybe ones who separated during the exodus from Telus? There had always been legends, rumors really, of a dissatisfied house of Tal'kanor who left Telus during the Dissolution of the Clans. Could they have ended up on Earth and then finally returned after all these years?

Enfir, the engineer assigned to assist Captain Davis with repairs onboard the Aurora, didn't think so. The components were too new to have existed during the Dissolution and tachyon transmitters would not be invented for thousands of years. Moreover, English was so different from Tal'kanor native that it was nearly impossible to have been an evolutionary offshoot of it. And the blood sample taken from Sorenson had yielded more Keldar genetic markers in Human DNA than Tal'kanor. If Humans were related, and there was no reason to think they weren't, then their ancestry went much further back in time, long before the three clans.

Then again, the Tal'kanor did have motive. Telus was overpopulated and the Keldar had managed to snap up the nearest star systems which contained habitable worlds. It was possible, however unlikely, that the Tal'kanor were scouting for a future colony and stumbled across Earth. But 25 light years was a LONG ways away for a colony. And why was the technology in the hands of the Humans? Had the Tal'kanor traded it in exchange for land rights? Or perhaps the Humans were under the control of the Tal'kanor. It would not be unprecedented, given the history of the Nikhel'd'aro, for such a thing to occur.

One thing was certain: something about this was not right. Here was an alien species, advanced beyond its capability, suddenly making contact and then asking for help to get back home. The Keldar council appointed Lomi to return with the Humans and open a dialogue with Earth, allowing him two ships and a small contingent of scientists with which to escort the Aurora back to Sol.

But the council made one demand: Lomi Or'dan was *not* to travel onboard the Aurora under any circumstances.

Their reason? During Enfir and Captain Davis' analysis of the ship, it was discovered that the upper hull of the Aurora had been blown outward from the inside, not crushed from the outside by flying debris.

“I was stunned,” says Davis. She’s sitting in a lawn chair by her pool, the early morning sun coming up over Phoenix and not quite making it hot yet. “At first I thought Enfir was wrong. He’s fabulously talented, but I figured he misread something. So he’s up on a ladder looking at the area of the hull above the cargo bay, analyzing the metal to see if they have anything to match it and then comes down and pulls me aside to tell me it looks like it’s been blasted outward.

“Now I figured as much because if we had been hit by a piece of debris, there might be a small impact dent at first, but then the depressurization would blow the hull outward into the vacuum.”

She takes a sip of iced tea and gets up to move the chair back a little into the shade of the orange tree growing behind her.

“So then we get up on the ladder and we’re looking at the hull and he’s pointing out to me all the striations in the metal, the way the edges of the tear are all pointing up, and the stress fractures on the bulkhead are the result of expansion, not an impact. I don’t think it occurred to me before because after the descent, no one was looking at the hole in the ship except to think about how the hell we were going to patch it. It was strange shit.”

While Enfir’s engineering team had repaired every last damaged part of the ship in less than 12 hours, Davis was still not satisfied. The morning after Rik Syanek, she reviewed the sensor logs over a cup of coffee. Rewinding the logs all the way back to the exact moment of the accident, she pulled the sensor data from Sorenson’s console to see the exact screen he would have been looking at.

“There was no debris anywhere even close to the ship,” she says, shaking her head. “Absolutely incredible. So then I’m thinking OK... what depressurized the ship?

“So I go track down Enfir and ask him if he has the analysis of the metal in our hull. He’s got every alien component we used in building the Aurora listed out and asks where we got them. I told him I didn’t know -which was true, by the way- because they never let me see the stuff down in the vaults. But I said I thought it was from a crashed ship and he nods and takes some

notes. Then he shows me the chemical equation for Inconel 817 all typed up on his little glass thingy, right down to the proportions of each metal in the alloy. Asks about that. And he's got the chemical makeup of the paint for the outer hull. And then he asks me what this one is and points to an atomic model of C4."

C4 explosives had been included in the Aurora's armaments for the mission, a 'just in case' measure to be used only, as Kurovec had put it, if diplomacy failed. The entire crew had been shown where the crate was and instructed not to touch it.

But obviously, someone had.

"So then it became a question of who." She takes another sip of her iced tea.

Captain Davis took the long way around the spaceport that morning, pondering all the possible explanations. It was sabotage, for sure, but who? And why? There had to be a reason someone wanted the Aurora destroyed.

It was possible the explosive was planted from the start, before Aurora even left the ground. But who would do that? There was no way it could be Lockheed or BAE; both companies had too much money invested into the project dating all the way back to Copper Canyon to have desired its destruction. The USAF, DARPA, and DXA also shared the same concern for the project. Aurora had been a cash cow for defense spending and there was no reason to destroy it on its maiden voyage. And OriGen, while new to the defense contracting business, was giddy at the prospects of what lay undiscovered in space.

Besides, why wait? If someone wanted to destroy Aurora, why wait until it was 20 light years from Earth? Why not do it in the hangar at Groom Lake where the explosion would kill the engineers associated with the project, thereby ending its development once and for all? As it was, there were two more Aurora spaceframes on the assembly line and nothing would stop their production.

That pointed to the members of the mission. Someone didn't want the crew to reach Gliese. Davis ran through the people in her mind... Kurovec and Dr. Levi were as much invested in the operation as anyone. The Marines, while they might have been scared, certainly never voiced any concerns or opposition to the mission. Could one of them have been responsible for it? But why would he kill himself in the process? Unless it was an accident?

Unlikely.

Jenner and Sorenson were out. She'd known them too long and been through too many close calls to even consider the possibility that one of them had betrayed the mission. Sorenson possessed the technical knowledge, for sure, but he would never in a million years risk his own life to destroy a ship he enjoyed piloting. And Jenner... no. She would not even disgrace his memory by considering it.

That left the civilians and Commander Christensen. Xi Mang? Nope. He wanted to visit Gliese as much as anyone else and his knowledge of the potential energy of antimatter would have prevented him from ever using any kind of explosive. A simple power overload in the antimatter reactor core would have disintegrated the ship; C4 was crude and weak by comparison.

Dr. St. Pierre? First, do no harm. He would never. Chrissy? She had been locked in her quarters the entire time and Davis doubted she possessed the mental faculty, sane or not, to blow a hole in a ship when she was terrified of the journey to begin with. Professor Warren? Nope... too excited to meet the aliens. He'd brought his MacBook, for Christ's sake, loaded with programs and videos and pictures and music. He was as much invested as anyone and probably did not know how to handle plastic explosives.

Then there was AJ. She had certainly argued with everyone and pissed them off enough. And she'd been sucked out entirely which meant she was unsecured. Maybe she had set off the explosive as a big "fuck you" to the entire crew and mission. But, though she was unwieldy as a colleague, she was hardly the murdering kind and, arrogant as she was, Davis doubted she was dumb enough to kill herself in the process.

Aaron? He had a religious background... but was he the kind of person who was so opposed to the discovery of alien life that he would kill to prevent it? He had the technical knowledge; she had seen the way he had handled the shotgun. This was a man who knew about guns and knew how to shoot; there was a good chance he might know about basic explosives as well. But if it was Aaron, why had he closed the door to the bridge and helped her land? No, despite his faith, he was a sociologist first and foremost and he had spoken to her on several occasions about this being a once in a lifetime opportunity.

That left Christensen. But why on earth would she sabotage her own ship? Surely she wanted to meet the aliens as much as anyone else...

And then it hit her.

Davis froze for a moment in the spaceport and then started sprinting.

Aaron was already in his quarters packing his things for the trip home. Christensen had ordered an evening takeoff and Aaron was glad to be going home finally. Even with their initial interactions with the Keldar having gone as well as they did, the mission, in his mind, was a mixed success. Thirteen people were dead, Chrissy was missing, the ship had nearly been destroyed, and he had spent the night with Brec.

It was time to go home.

“Aaron!”

He stood with a start and smacked his head on the curvature of the fuselage.

“Fuck!”

“Oops sorry...” Davis was behind him, breathless in his doorway.

“What’s up?” His head throbbed.

“I need to talk to you,” she said, closing the door.

“OK... I stayed at Brec Shandur’s house last night. I don’t know if you remember I went to his party... you were pretty smashed when I told you. I got drunk and the trams had stopped running... sorry.” As captain of the chip now that the major was gone, Shanika was in charge of everyone’s attendance and ship’s operations. It was best she knew the truth.

“Told you it’d be a hot date, but that’s not why I’m here.” Her voice was low and she motioned him closer, glancing back at the door to make sure it was closed. “We need to talk about the hull breach.”

“It’s sealed. I saw the plating from the outside and when I came in... it looks like nothing happened.”

“No, no, no... the actual *breaching* of the hull.” She was unsure of whether or not she should tell him. He and the commander had been on friendly terms during the last day and it did not bode well for her own safety if he could not be trusted.

“What about it?”

“What I’m going to tell you does *not* leave this room, understand?”

“OK.”

“No, I need your word on this. You are the only person I’m telling this to.”

“Alright... you have my word.”

“It was breached from the *inside*.”

“Well, the pressu-”

“No,” she interrupted. “It was an explosion. Enfir found C4 residue on the hull... you know, plastic explosives?”

“Yeah...” He was still for a moment. “I know what it is. Who would...?” He looked at her. “No...”

Shanika nodded. “She was in the bathroom... right off the cargo bay. Convenient, huh? And she’s the only one that survived.”

“But why?” Aaron sat down on the edge of his bed.

“I think she knew Jenner would turn the ship around. You know what a bad start they got off to and as soon as he saw the debris field, he wanted to abort the mission. But she had to make sure we landed, so she depressurized the ship. She could have planted the bomb days beforehand as a precaution.”

“Shit...” Aaron’s heart was racing, his blood surging through his frame. “Why would she want us to land so bad?”

Davis shook her head. “I don’t know. I mean, maybe Kurovec gave her orders to make first contact no matter what, but that doesn’t sound like him... He’s never been one to risk the safety of the crew or potentially losing the ship.”

“Do you think the Keldar knew about this or... or were involved?”

“Maybe,” she sighed. “But I checked the sensor logs for the whole mission... the only time she used the tachyon array was to communicate with Kurovec. I didn’t find any other transmissions.”

He bit his lip. “What was down there? Because like... when Lomi offered to take us with him, she didn’t protest at all or try to sabotage the mission then. I’m thinking there was something on Gliese maybe that she was after.”

“I’m not sure. But we can’t tell anyone about this, not even Sorenson.”

“Really? But...” He saw the grave look on her face and closed his mouth. “OK.”

“He’s too hot headed and he’ll shoot first and ask questions later. I need him focused on navigating us back home, not on any kind of revenge or... or I don’t know what. Once we get home, I’ll tell Kurovec privately. In the mean time, I want you to keep an eye on her. I’ve got to be in the cockpit most of the time, but you can move around, watch her... look for anything suspicious. *Anything*. She plants another bomb, we may not survive this time. And for Christ’s sake, the door to the bridge stays CLOSED.”

“Alright, I’ve gotcha.”

“And don’t say a word to the Keldar. We’re gonna have two onboard and I don’t want them getting spooked.”

“Good idea.”

Davis spanned her hand across her eyes, massaging her temples with her thumb and middle finger. “I did *not* sign up for this. This is like fucking *Murder She Wrote*... looking for clues and shit.” She shook her head. “You OK?”

Aaron snorted. “Yeah, I guess. A bunch of people die, we meet some aliens, there’s a saboteur onboard... I’m great. Never better.”

“No I meant after your night. You look a little rough.” She tapped the stubble on his cheek.

Aaron’s face flushed red and he looked at the floor. “Sorry.”

“It’s OK. Look, Christensen only said not to eat their food.”

“Please don’t tell her!”

“Dirty boy... I won’t. Was he worth it?”

“I don’t know. Don’t want to think about it right now. It’s too much. All of this is too much,” he said motioning to the ship.

“One step at a time. You’re pretty resilient for a civilian... If you ever want to talk, you know where to find me.”

“Oh I’ll take you up on that. At some point.”

She smiled as she left, leaving the door open.

Aaron needed some air and got up to wander down the corridor toward the greenhouse, now filled with some Keldar plant cuttings and a sapling of one of their impressive pine trees, it’s

top bent sideways so it could fit in the tiny room. He could smell its sap as he walked past the door and it blew a picture of the temple into his mind, Brec bent at his wife's grave. Had it really only been yesterday afternoon?

And how efficient Enfir's team had been! The electrical systems had been overhauled with some kind of new bioelectric relays that were exponentially more efficient than the old wiring; Sorenson, now back on his feet, had explained in layman's terms that 'the lag in the computer systems was gone'.

The hull was repaired with top notch workmanship, not a single plate out of place and the bulkheads miraculously reformed to their original state. There was fuel in the scramjet tanks, too, though the Keldar had not used combustion engines for well over a thousand years and the closest thing they had was a kind of moonshine, imported from the farmland across the mountain ranges.

The kitchen was working again, though the carpeting had not been replaced.⁶⁰ A myriad of Keldar food had been stocked into the refrigerator, carefully selected to represent the local cuisines of over a dozen cities on the planet.

And the tachyon dish had been replaced altogether. Christensen had made the initial test call on it that morning, reporting their stellar coordinates to a relieved Kurovec and telling him about the events that had occurred. But now, as he stared at the communications array, Aaron wondered what else Christensen and Kurovec had talked about.

The Keldar had even cleaned out Chrissy's quarters, the room fresh and new again with not a stain to be found anywhere.

Why were they so generous? Aaron wondered what was in it for this race to help these stranded strangers. Were they planning an invasion? Did they want to glean everything they could about the Humans so they could follow them back to Earth and take over the planet? There had to be an ulterior motive. Didn't there? Was it possible that after enough years of war and evolution, they had simply defaulted to benevolence?

It gave him hope for Humankind to think that maybe, someday, after a fascist eugenics program, Earth might someday achieve a lasting peace. Then again, the discovery of aliens

⁶⁰ The Keldar do not use carpeting or even rugs as they are considered unsanitary. All floors are stone or, in residential settings, wood.

would probably do more to instigate peace than anything else. Humans were one people now, lumped genetically and astrographically into a single species that would be judged and dealt with as a whole, not nation by nation. The Keldar were not interested in the Iraq War or China's dispute with Tibet or the drug cartels in South America or trade embargoes or language barriers or religions. All of that was irrelevant now, the philosophical questions of Human existence eclipsing any petty differences people might have with one another.

"You did not say goodbye."

Aaron jerked his head up. There, at the top of the ramp, standing in the cargo bay was Brec Shandur, a small duffle bag of some kind in his hand.

"I-I... I ummm... I had to pack."

Brec smiled at him. "I vol-un-teered to return with you. And Enfir."

Aaron nodded to the lanky engineer. "Hello."

"Howzit goan?" Enfir's slang and attempt at contractions was lousy, but admirable. He dropped his duffle near Brec, turning on his tablet device and heading for the engine room where Davis was circling the antimatter core.

"Are you alright?"

"Yes." His body was screaming at him, bloody murder with a weapon, motive, and confession.

Brec leaned forward and Aaron stepped back.

"No. We can't... not on the ship."

"Why not?"

"My people are not like yours... it's... it's not OK. We've got to be professional and discrete."

Brec smiled and Aaron felt the light feeling in his chest again. "I can do that. It is only one of your weeks to Sol."

He turned abruptly and walked back down the hall, entering his new quarters and closing the door. To hell with fresh air. He needed privacy. Away from him.

Warren's MacBook was under his bed, its cord plugged into one of the few outlets built into the Aurora. He slid it out, opened it up, and found Word. Then he dug his notebook out from under his stack of clothes and opened it to the first page, laying it down at his left side.

Ignoring the commotion of the ship, he began typing.

Aaron remained in his quarters for most of the journey back to Earth, except to venture out to the bathroom or to eat. Occasionally he would pop in on the bridge, report the findings of his inspection of the ship to Captain Davis, and then stay for a while, admiring the colorful lights, but otherwise, he kept to himself. Isolation would kill the emotions, starve them of their food source, and then he could manage them more easily.

He had transposed his entire notebook of sketches and shorthand notes into a massive manuscript in a fit of inspiration, the book covering every last detail he could remember about the Keldar. It was dry reading, stripped of anecdotal stories, but it would be accepted in the academic community as the definitive introductory reading on Keldar culture. He even managed to sync his smuggled iPhone with the computer and pull off the dozens and dozens of photos he had taken, inserting them into the text where appropriate. Perhaps if he ever returned to Keldar Prime, he could revise the book and expand it into an even larger volume with more pictures, some charts, illustrations, and a website with multimedia links to Keldar language, music, art... maybe even an interactive timeline.

He had such dreams.

Anything to take his mind off of the beautiful, beautiful, beautiful man who wandered the halls, chit chatting with Troy and Christensen, laughing aloud and cooking food for the skeleton crew.

What killed Aaron more than anything was that Brec had no issues with his sexuality; for the Keldar it was undefined and therefore presented no alternatives to its true nature. And Sean had had no issues with his sexuality... he had been open and out and loving life. In fact, that was part of what had drawn Aaron to him those years ago. There was a child-like charm to the undisciplined, free flowing emotions of an out gay.

“It’s isolating,” says Aaron. He’s made hummus in a food processor and it sits on the low coffee table, surrounded by carrots. “It’s bad enough you’re gay and growing up in a straight dominated world. But then to be the only gay guy you know who *doesn’t* think about it and question it. It’s very isolating.

“And I know, you’re thinking that as a sociologist, I should have come to terms with this a lot sooner.”

The thought had crossed my mind.

“Maybe you’re right. But you have to understand, it wasn’t an option while I was in high school and then it took most of my college years to unravel everything that had been done to me as a kid. My therapist always says it’s like layers of an onion.”

For Brec, the weeklong trip to Earth was perplexing at best. At its worst? It was the most frustrating experience of his young life. Aaron had ignored him since he came onboard and spent the entirety of the journey locked away in his room, typing furiously. Brec could hear the click-clicking of the keys every time he walked past the door.

He’d knocked once. Nothing. Absolutely nothing. No explanations, no apologies (not that he expected one), and certainly no smiles. On the off chance they passed one another on the way to the galley or the restroom, Aaron would flatten himself against a bulkhead to let the Keldar through.

Yes, perplexing.

They were a strange race. Peaceable, but not trusting, and that was where Brec saw the most likely culprit of Aaron’s flip flopping attitude towards him. Maybe he just didn’t trust him. It was logical. After all, this whole experience must have been shattering for the Humans who had not, until his fateful encounter with Aaron on Wratakfor, confirmed the existence of an alien race.

Their world was in for some serious change.

But that didn’t explain Aaron’s complete silence. Where was the man he’d tackled to his bed that night, feverish and impulsive? Brec had awoken the next morning to a world of brilliant color. He hadn’t felt that way since before Ver’un was killed.

“I did not love her.” Brec is still staring out the window of the spaceport. “You must understand, Keldar do not marry for love. It is selective breeding... eugenics as you Humans call it. Lomi and Pel were fortunate to find love after they were matched. Ver’un and I were close, but it was not love. We shared an interest in music. She could compose and I could sing. And she was beautiful and we were very intimate.”

But Brec draws a distinction between his marriage and his attraction to Aaron.

“Ver’un was a requirement in which I found some happiness.” He turns around, hands still folded behind his back. “Aaron... he affected me. Like instinct.”

Groom Lake Test Facility

September 26, 2010

0800 hours

Davis had already finished her post-flight checklist. The Aurora was handling, as it had on every other descent except the one into Gliese, with the best manners possible. The auto-landing sequence was engaged and this left her free to snatch her clipboard from her seat and start checking off boxes.

Sorenson was spinning around in his chair, the navigable portion of the journey complete, and he drummed his fingers on the sides of his console.

“I want an In-N-Out burger,” he said. “First thing I’m doing once they debrief us. I’m driving to LA. tonight.”

Davis cracked a smile. “You think they’ll debrief us in 8 hours? Good luck with that.”

“Hey... there’s nothing wrong with being optimistic. Besides, Keldar food is boring.” The Keldar had loaded the Aurora with the best food they could find: a wide selection of vegetables and some crisp, very tart fruit that wouldn’t spoil. A few slabs of salty meat were also loaded onto the ship, wrapped in some kind of aluminum foil.⁶¹ No fried food, no pastries, no desserts. It was a gym diet and Sorenson had found it aggravating.

“What about you? You finish your book?”

Aaron looked up from the console where he was watching the fuel levels just as before. This time they didn’t drop so sharply. “Yeah it’s done. I need to have some people edit it. And I think I want Lomi to look at it to make sure I got everything right.”

“Don’t sound so enthusiastic.”

Aaron frowned and looked back at his console.

There were no clouds in the sky and lustrous blue filled in the windows of the bridge, the sun glaring off the glass as the thrusters eased the ship down, down, down to the tarmac far

⁶¹ The Keldar do not use refrigeration, but instead have hybridized produce that does not spoil for weeks. Meats are usually cured or dried; the foil is meant to keep out bacteria.

below in the Nevada desert. The two Keldar ships which had flanked them during the entire journey were out on either side of the Aurora, descending at roughly the same rate.

Christensen had contacted the other ships to let them know they would be landing at Area 51 and provide a brief explanation as to why: the public panic that would be caused by aliens landing at, say, LAX or on the White House lawn would send the world into riots and civil unrest. They would land at a secret facility until the government could decide how best to break the news to the public while ensuring its security.

“We’re at 5,000 feet,” said Davis. Out the front windows, she could see the other two Keldar ships, brilliant silvery arcs, dropping through the sky, vapor trails streaking from their wingtips. “4,000... 3,000... 2,000... Davis to Christensen... prepare for landing.”

Laura was in the engine room with the two Keldar. Davis had asked it as acting captain of the ship to ensure that *everyone* was buckled into their seats this time. There would be no debates over the headsets, no last minute trips to the restroom, no disobeying her orders that everyone buckle up. She had personally checked on the commander and made sure the door was sealed when she returned to the bridge. If Christensen was going to try anything, the door would be opened and Davis would receive a notification on the bridge.

“1,000 feet... thrusters at maximum... 500 feet... 250... 100...”

Aaron could see the runway now as Davis nosed the ship down. And far, far in the distance there was motion... Humvees. And were those soldiers getting out?.

Hadn’t Christensen told them the aliens were peaceful? Then again, DXA and the State Department couldn’t know what to expect and it was a smart security precaution. Given the obvious confusion as to why the Aurora had been disabled, Kurovec was likely covering all his bases.

There was a jolt as the Aurora touched down, the landing gear flexing under the weight, and then the loud roar of the engines reversing their thrust to slow the spacecraft down. As they slowed and rolled closer to the semicircle of Humvees waiting at the end of the runway, Aaron saw the other two ships descending vertically, the sand whipping up at the end of the asphalt as they touched down.

Then nothing.

Silence.

The three of them breathed a collective sigh and Sorensen was up, looking out the window, grinning.

“Fuck yeah, that’s how we do that! Landfall, baby!”

Davis hauled herself up and out of the cockpit to hug Sorenson and Aaron. “I want to thank both of you... I know it was a tough ride, but you guys held it together.”

Aaron’s chest sagged in relief... it was over. He could go back home, north... to the trees and the mountains and the water. Go out and put some flowers on his dad’s grave. Had he really not thought of his father in two weeks?! Good lord...

And there was the cabin at Crescent Lake... Beth had tossed him the keys for it before the funeral and they were in the glove box of his Subaru. Maybe he would go spend a few days there and unwind. He would hug Beth. Even if they hadn’t always gotten along, he would hug her just the same and tell her he loved her. She was his only family now and he refused to let that bridge collapse.

Sorenson was hugging him now, too, and Aaron hugged back. He wondered if they would stay in touch or if such things were even allowed after secret missions of this nature. Surely Navy SEALs and CIA agents hung out with one another, right?

Maybe?

And there was his check!

That brought a smile to his lips. His student loans would be gone and he would have enough for a down payment on a house. The car would get paid off. Things were shaping up nicely.

“Well, let’s go see where to from here,” said Davis. “I’m sure they want to put us through decontamination of some kind.”

But as she reached for the door, she heard the telltale pop-pop-pop of gunfire.

“What the hell?”

Both Aaron and Sorenson were already looking out the front windows, watching as a team of soldiers in desert camouflage shot the first Keldar exiting his ship. Another could be seen walking down the ramp.

Pop-pop-pop-pop.

He slumped to the ramp.

“Jesus... what the fuck?!”

Davis turned to Sorenson. “Lockout the controls on the ramp; I don’t want anyone lowering it.”

But it was too late. They could already hear the mechanical buzz as it lowered far behind them in the cargo hold. Then footsteps. Pounding at the door.

“Aaron? Captain Davis?”

Brec’s voice.

Aaron turned and opened the door. “Don’t go down that ramp... t-they’re shooting...”

“Take him!”

Voices behind Brec as soldiers appeared at the top of the ladder and came sprinting down the hallway. They wore masks over their noses and mouths, protective eyewear, gloves. Were they in biosuits?!

“Don’t move!” Four of them, AR-15s drawn and pointed at Brec as they crowded the hallway.

One of the soldiers glanced over Brec’s shoulder at the bridge crew. “Captain, remain here.”

“Whose orders?” said Shanika. She gripped Sorenson’s arm tightly as he reached for his pistol.

“That’s classified, ma’am.”

Brec knew better than to resist. There were four of them, seven if the bridge crew was in on this as well, and only one of him. He could feel the barrels of the guns pressing into his back and assumed, correctly, that they were weapons, similar to the one Aaron had carried on Wratakfor.

He looked at Aaron for a moment, searching the Human's face for any kind of explanation, the smallest clue as to what was happening.

Pop-pop-pop.

He looked past Aaron and out the front windows to see two of his own direct reports dead on the ramp of Lomi's ship and more of the Humans rushing up the ramp into the ship. His mentor was in there...

Back to Aaron.

"Come with us. Do not resist or you will be shot."

"Brec..." Aaron caught himself.

The Keldar was unceremoniously dragged backwards down the hallway. Eventually he turned around to walk, glancing back once to see Aaron still staring at him. Then down the little ladder, down the ramp, and out of the ship into the blazing morning sun.

Christensen appeared at the top of the ladder, pistol in hand as she approached the bridge.

"Do not fight back, whatever you do," said Davis under her breath.

"Well, looks like we landed in one piece," said Christensen as she filled the doorway to the bridge. "Question is, now what?"

Aaron almost didn't see the movement from the corner of his eye.

"Drop it." Sorenson had his own gun, pulled from the rear waistband of his pants, and was aiming it at Christensen.

"You think you can shoot me sergeant? And then what? You won't make it off this ship alive without me."

Aaron could hear more footsteps as soldiers poured into the Aurora. A racket from the engine room as they dragged Enfir out of the ship.

"I said put it down, commander."

"Troy, you know me better than that..."

They stood in silence for a few moments, Sorensen watching the commander and Davis watching Sorenson.

Then in an instant: POP!

The sound deafened Aaron, who turned his head away and tried to shake out the ringing in his ears. Christensen's arm was up, gun in it, Sorenson sprawled backwards across his console. A pink mist of blood had sprayed out and struck Aaron's cheek, landing in drops on his arm and he heard himself cry out in horror as he realized what it was.

"Jesus!" Davis' voice was shredded into a panic.

"Anyone else?" asked Christensen. "I'm supposed to keep both of you alive since you," she motioned to Davis, "are the only one who can fly this thing. Although I'm sure that will change. And you... Mr. Aaron Ridgewood, sociologist and tortured soul, are quite close to a few of these Keldar. They'll talk to you. We hope."

Aaron stared at her, struck silent as he watched Sorenson's body bleed out onto the carpeting of the bridge.

"So you both have a decision to make... you can quit fucking around like the sergeant and you do exactly as I tell you, or I can kill you. Your choice."

"I'm gonna get you court martialed for this," said Davis.

"Good luck with that." Soldiers filled in the hallway behind her. "You kids ready to move? Then let's go."

Laura Christensen is defiant, her arms crossed again in front of her and her gaze lowered to stare at a corner of the floor in her cell.

“I did what I had to do,” she begins. Her voice is ice, steel, all business. “I’ve made tough calls before and that was a nasty one, but it had to be made. It was him or me.”

She purses her lips for a moment, eyes wide and unblinking.

“You have to understand, when you’re given orders by someone like Kurovec, you don’t just say no. I’d have liked for everyone to have made it back safe and sound, but the Major should have been told about my directive from the start. And every time I contacted Kurovec and asked him if I could bring the Major in on the operation, he forbid it. Need to know runs deep in the government.”

She sighs and closes her eyes for a moment, taking another breath and holding the air for a time.

“If I had it to do all over again, there was a power cuplink that was exposed in the greenhouse. I could have gotten it wet and that probably would have shorted out most of the ship, but... but there was no guarantee that we could land with no electrical systems and it would have left us drifting in space. Which is bad because we were in that debris field. Something *would* have hit us eventually.”

She uncrosses her arms and folds her hands, resting them on the table in front of her. Lunch has been brought in, a sandwich wrapped in plastic, some barbecue flavored potato chips, and an apple. But Laura is not hungry and instead glances at the little glass window in the door. The buzzed head of the guard is barely visible.

“Fact is, if I hadn’t planted that bomb, Major Jenner would have turned the ship around, we’d have all returned to Earth, and I doubt, at least with the economy in the shape it’s in, that DXA would have been funded for another mission. This was a long shot from the start and sometimes... things need a little push.”

She pauses for a moment, looking back at her hands folded in her lap.

“But I didn’t want it to end the way it did. I misjudged Kurovec. From the start. I mean, he told me all these things about how he wanted me to takeover DXA when he retired and how he was teaching me everything he knew. But there were a lot of secrets he never told me and I didn’t get to find out until that day.”

In fact, there were two critical secrets that, had Christensen known, would have drastically altered her involvement in the Aurora program.

The first was the extent to which OriGen was involved. Founded in 1973 as a genetics firm, OriGen was initially a small research & development company spearheading discoveries of new proteins in the development of antibodies. But as genetic engineering progressed, the firm burgeoned into one of the leading biotech companies specializing in DNA sequencing and nanotechnology. In 1990, they were contracted to begin working on the Human Genome Project and by 2005, they were considered an industry leader in the development of gene therapy.

By 2007, OriGen saw itself as ready for the next big step. The Bush administration’s ban on embryonic stem cell research had curtailed OriGen’s development of gene therapies and with only the existing library of embryonic stem cells to use, OriGen suddenly found themselves on uncomfortably even footing with many of the smaller biotech firms which had once existed only in the shadows. A game changer was needed, something which could break them free of the moral confines imposed by a conservative political climate.⁶²

A focus group was formed within OriGen to evaluate possible alternatives. Embryonic stem cells from other countries (namely Korea and China) were readily available. But OriGen’s investors saw two barriers to the viability of this option. First, other American biotech firms were already exploiting this loophole; there would be no sizable advantage to be gained if competitors had access to the same lineage of stem cells.

Second, if the public ever found out that OriGen using imported stem cells from aborted Chinese fetuses, there would be hell to pay. And it was quite possible that, should a republican

⁶² On July 19, 2007, President Bush vetoed the Stem Cell Research Enhancement Act of 2007 which would have provided public funding for the creation of new stem cell lines via the Public Health Service Act. Exactly one year earlier, Bush vetoed a similar bill. On both occasions, the bills had already passed congress and were vetoed due to the president’s moral convictions over the destruction of human embryos. Despite speculation to the contrary, President Obama similarly refused to allow federal funding to be used in stem cell research where a human embryo was destroyed.

win the election in 2012, the FDA would fine OriGen for human rights violations. Even if they paid the fine, the negative publicity would kill the company's public image.

So the focus group began to look at alternatives. Developing new lines of stem cells without kill a fetus was still years away. In the interim, there was research which suggested stem cells from other primates could be hybridized to work in Humans. But lab tests were inconclusive and, rational or not, the board of directors feared the possibility of a patient growing a chimpanzee arm instead of a Human one should anything go wrong with the DNA sequencing.

Then there was the discussion around alien DNA. At the time, NASA had only discovered amino acids and proteins in space, not full strands of DNA. And to the best of anyone's knowledge, there was no concrete proof that life existed outside the confines of Earth, even on Mars. Further complicating the matter was that, as with other developmental techniques, retrieving extraterrestrial DNA was decades away at best.

Ironically, alien DNA also held the most promise. Not only was it immune to the laws governing Human DNA, it had the potential to be radically different from anything found on Earth. Who knew what laws of physics had governed the evolution of a species from outside the Earth's biosphere? There was the potential to find mind-boggling proteins, the likes of which Humans didn't even know were possible. This would open the doors to new kinds of treatment whose efficacy didn't depend on gravity or oxygen or cellular mitosis as it was currently understood. In short, alien DNA could rewrite everything Humans thought they knew about biology.

But Big Pharma needed convincing and the board of directors initially dismissed Kurovec's offer. There was no proof that aliens existed and while Kurovec's government credentials should have given him credibility, the OriGen knew better than to trust the U.S. government. Kurovec might as well have worked for the FDA.

Even assuming aliens *did* exist, there was no guarantee their physiology would be anything even close to that of a Human. Moreover, assuming the DNA was similar, adapting extra-terrestrial antigens for Human use would be an insurmountable task, akin to curing cancer.

Desperate for additional funding to push Aurora over the final threshold, Kurovec requested OriGen send a consultant of their choosing to Groom Lake in July of 2009. The board of directors sent Dr. Brad St. Pierre.

What Kurovec showed the doctor remains classified to the deepest levels of need to know secrecy, but it is estimated that he was shown the wreckage of at least one UFO and possibly the skeletal remains of a xenomorph.⁶³ Shortly thereafter, OriGen began aggressive contributions to the Aurora program with the exclusivity contract in place.

That Aurora discovered the Keldar instead of purple blobs of goo was even more than Kurovec could have hoped for. It was like winning the lottery: here were perfect specimens for medical research, nearly identical to Humans in every way except taller, faster, stronger, smarter, prettier. And Christensen's last transmission before the Aurora's arrival had noted specifically that the species had a history of eugenics which had drastically improved their genetic purity and almost eliminated hereditary disease. With any luck, OriGen could splice these genes into Human DNA and help millions of people worldwide.

And DXA would be there, reaping their 5% of OriGen's profits. The income stream would be enormous and long-term.

That was secret number one, quietly kept away from Commander Christensen lest her awareness of Dr. St. Pierre's motives affect her treatment of him during the mission.

Secret number two was the crashed UFO in the vaults of Groom Lake. While DARPA engineers had harvested engine components essential to the function of the EM drive assembly, they had also found a weapons system, a pair of energy-based cannons mounted to the underside of the wings. One was sheared off during the crash, but the other was largely intact, a few pieces of its power transformer having fused and rendered it inoperable. But Kurovec saw a gold mine in the cannon... if DARPA could make it functional again and duplicate it, the sales would be incredible, even if Aurora was cancelled. The prospect of an energy-based weapon that didn't require projectiles was extraordinary and he knew that not only the American military, but also

⁶³ Despite multiple investigations into DXA since the return of Aurora, there has been no evidence of either Keldar or Tal'kanor remains among the wreckage of crashed UFOs. It is possible that the aliens survived the descent and began living among Humans, though this would seem unlikely as the cultural shock or reverting to what the Keldar consider "pre-industrial" technology would most likely result in a breakdown of mental faculties.

high-bidding defense organizations from around the world would line up to get their hands on that kind of technology.

But DARPA had a problem: they couldn't fix the cannon. Not only were the mechanics so completely foreign to them that they were unable to make headway on repairs of any kind, but the materials used in the construction contained several elements not found on Earth. Since the weapon was energy-based, proper conductivity was critical to the cannon's safety and functionality. Without an exact materials match, the engineers reasoned, it was impossible to reconstruct a damaged part or replicate the cannon accurately.

Moreover, the source of the weapon's energy would have to be something far more stable than antimatter. Military applications of antimatter could not be trusted; one misstep in the handling process and an explosion the size of Hiroshima would destroy both the enemy and any friendly troops in the vicinity. It was neither safe nor practical given the probability for Human error.

When two DARPA engineers made their report to Kurovec in the spring of 2010, he saw another new opportunity for Aurora. It was more than reasonable to assume that the crashed UFO in his basement belonged to the same alien life forms with whom Dr. Levi and his team of mathematicians were communicating. Gliese was only 20 light years away, the galactic equivalent of 'down the street', and it was only logical to conclude that these aliens had probably visited Earth in the past.

If Aurora could somehow bring back an alien, an engineer if they had such a thing, then the extraterrestrial could kill three birds with one stone. It could provide the knowledge necessary to repair and duplicate both the cannon and the EM drive *and* it would provide an alien genome to make OriGen's \$9 billion investment worthwhile.

But if Kurovec had learned one thing in his years with the State Department, it was that people did not willingly give up information, especially if it involved weapons systems. If these aliens were anything like Humans, and there was no reason to think otherwise, then coercion might be necessary.

So Kurovec gave Commander Christensen only the basest of instructions: find a way to bring back the EM drive *at any cost*. Everything else would follow. It was a gamble... he had

made huge assumptions which, in the scientific community, would have branded him a charlatan. But in government, he had a safe environment in which to take risks.

Retirement wasn't far off and if everything worked according to plan, the changes to health and warfare would be incredible. And Kurovec would be there, the man behind every curtain with an iron in every fire.

Yes, life in America was truly good.⁶⁴

⁶⁴ Whether it was ego or pure ambition which drove Kurovec to pursue such a hardline against an alien species he had never encountered, we may never know. His silent slip into obscurity after the hearings on the Gliese mission suggest a man with little desire for political gain or celebrity. As of this writing, he is rumored to be living in Florida.

Christensen is frowning again, deep in thought.

“Even if I’d brought back a stack of EM induction coils so he could build new engines, he had no intention of letting those Keldar go. He wanted their help to fix the gun... make more, sell them to the highest bidder.” She shakes her head. “And the genetic component was just disgusting... OriGen had doctors, *on the ground* waiting to dissect the first Keldar off that ship. I don’t know how he got them into Groom Lake.”

She’s flustered, restless in the aluminum chair.

“If I’d known, I wouldn’t have done it. None of it. So I guess in a way he was right not to tell me. I claim full responsibility for the deaths of the Aurora crew, but the Keldar? Nu uh. No way. That was all him.”

By the time Aaron and Captain Davis were in a jail cell, deep beneath the surface of the Nevada desert, a total of four Keldar had been shot and killed in the firefight on the tarmac. Their bodies were already being autopsied in a morgue facility and preparations were made to ship them to OriGen’s global research and development facility in Menlo Park. An additional five, Lomi Or’dan among them, were wounded and under observation in the infirmary, a myriad of tests being performed on them for blood contagions before a doctor was allowed to even speculate about treating their wounds. Brec, Enfir, and another Keldar were being held in a nearby cell, the entire sector of the compound sealed off with airlocks and staffed only with essential personnel wearing biohazard suits.⁶⁵

One of the two Keldar ships had already disappeared into a hangar where it was being torn apart, piece by piece, the DARPA engineers in a frenzy over the advanced technology.⁶⁶ With the design of the EM drive components now in hand, the other two Auroras would be

⁶⁵ Kurovec and Air Force General Eric Brandes, the commander of operations at Groom Lake, had evacuated nearly 80% of Area 51’s normal staff to limit the number of people who would witness the Keldar arrival.

⁶⁶ While Kurovec would maintain that no useful technology was found that day, Lockheed filed for 127 patents in the months after the Gliese mission, most for new alloys and chemical composites. Two, however, were standouts during the patents rulings. One was the gravity generator system, made up of elaborate gyroscopes filled with mercury. The other was the much-desired induction coils for the EM drive assembly... the missing link that Kurovec had assigned Christensen to bring back at any cost.

completed on schedule, the first delivered to NASA and the second delivered to the British. If mass production could be achieved, perhaps at a larger Lockheed facility, the Aurora program might finally recoup some of its losses after 30 years of overspending and usher in a new era of space travel.⁶⁷

But though DXA was wild with excitement in the hours after the Aurora's return, the manner in which the Keldar had been treated was up for some debate. Kurovec's deal with OriGen was not common knowledge and as a result, there was some question as to his methods among the staffers working at Groom Lake that day.

Had it really been necessary to kill them?

Many of the staff working on Aurora had overheard Christensen's last transmission and she had given the clear impression that the aliens were peaceable. Moreover, as a group of extraterrestrial consultants pored over Aaron's notes and the draft manuscript of his book stored on the MacBook recovered from the Aurora, doubts were raised about Kurovec's order to detain the Keldar and dismantle their ship. It seemed entirely possible, based on the evidence left by the Aurora's crew, that an armed conflict could have been avoided. Why was Kurovec so insistent on the use of military force that morning?

These were serious questions that needed answering and yet no one had been given authority to speak to the Keldar prisoners. In fact, the remaining personnel working at Groom Lake had been explicitly instructed *not* to engage the Keldar on any level and, if contact needed to be made, they would wear the protective suiting with biofilters and gloves. The same policy applied to handling Aaron and Captain Davis.

It wasn't as if DXA was unprepared; on the contrary, everyone at Groom Lake had been drilled in this sort of event for years.⁶⁸ But as the DXA team began their work that afternoon, nerves were frayed... something wasn't right. Where was the rest of the Aurora's crew? Why

⁶⁷ As if to prepare for this future, Lockheed's capital investment team began buying stock in terraforming companies the day the Aurora returned, anticipating that a mission to Mars was imminent.

⁶⁸ Secretary of State Dulles had made first contact scenarios the top priority of DXA and for decades, the organization had used its research with UFOs to brainstorm possible scenarios of what first contact should look like from an operational standpoint. However, as evidence of abductions and meddling in Human life continued to mount throughout the 1980s and 90s, DXA leadership prompted a shift to less diplomatic forms of first contact. By 1993, all alien life was presumed hostile unless proven otherwise.

were two of the Humans being held in a jail cell? Why were there rumors of the third Human, shot dead on the bridge of the Aurora? Why were the Keldar not being treated for their wounds?

And why was Christensen arguing with the director?

“I had a change of heart,” she says.

She crosses her legs, struggling against the shackles around her ankles. “I um....” She swallows, looking away. “I realized I was on the wrong side. When I saw them in the medical center... all in a group and just... cowering... and Lomi was laid out on the floor bleeding. I realized I was doing something wrong.”

Her eyes well up with tears and the stone cold expression on her face cracks. “I couldn’t just... I remember looking in and thinking that Lomi’s blood was the same color as mine. Or yours. Or anyone’s. And when I went to get cleaned up... because Jan ordered us to wash down in this... this antigen foam in case we had any Keldar bacteria on our skin. When I went to do that there were powder burns on my hand. From when I-I... when I shot Troy. And spatters of his blood on... on my face.

“I’m sorry.” She covers her mouth and looks away, tears streaming from the corners of her eyes.

I pause the recorder and set down my iPad to go tap on the glass window in the door, asking the guard for some tissues. He eyes me suspiciously as he walks to a nearby supply closet and pulls out a box of Kleenex which he hands to me after ordering me to back away from the door as he opens it.

Christensen takes two and turns away. “I’m so sorry... I don’t cry in front of people.” She turns back, most of her composure regained. “How many battles have I gone through and never once shed a tear for anyone I’ve killed or anyone I’ve lost. But um... yeah, this was different.”

She takes a deep breath and clears her throat.

“I argued with Kurovec about releasing them. I told him it was wrong to hold the Keldar captive... that they were peaceful and wouldn’t hurt us. But something was different about him. I don’t know what it was... maybe I finally saw him for what he really is. He said OriGen would be conducting experiments before they could be released and that he wanted help fixing the cannon thingy that DARPA had found.

“And I guess there was also a weapon on their ship that couldn’t be activated unless one of them was using the controls. Like a bioweapon... it reads the DNA in their skin and would only activate for a Keldar.⁶⁹ We went round and round and round, but... he wouldn’t budge.”

She shakes her head for a minute.

“So disappointing. Take your idol and have him turn into everything that you thought he wasn’t. And then realize that he turned you into a replica of himself. That’s how I felt. Write that down.”

⁶⁹ Through their many long wars with the Tal’kanor, the Keldar have hardcoded their own genetic markers into most of their ship-based weapons systems through a complex scanning system built into the consoles. This a security precaution which minimizes the chance that a Tal’kanor takeover will result in one of the Keldar’s own ships being used against them.

Groom Lake Test Facility

September 26, 2010

1318 hours

“What the hell do you think you’re doing?!” Davis was staring at Christensen while she unlocked the cell door. The guard was slumped against the wall and another one who had come running when he heard gunfire was sprawled out in the corridor.

“Getting you guys out of here.” She pulled two pistols from where they were tucked into her belt. “Here. They’re holding the Keldar in the D Block, medical compound. Go get them out. Their other ship is still parked on the tarmac outside the main hangar.”

Davis snatched the gun from her, cocked it, and pointed it at her head. “You think we’re gonna trust you?”

Christensen stared at her. “You want to shoot me for killing your buddy? Go ahead. One way or another, I’ll pay for it. But I’m trying to help now and you can either kill me or we can actually do something about this.”

“Why the sudden change of heart?” she snarled.

Christensen paused for a moment. “Because I know when I’ve made a mistake.”

There was an awkward silence as Davis lowered her gun and the three of them stood for a moment. Christensen pressed the other gun into Aaron’s hand.

“This doesn’t change anything,” said Davis.

“I know. But it’s the right thing to do. I’m going to go make a mess. You guys get them out and get yourselves out, too. Explain everything to Lomi... blame me for it all if you have to. Just get out.”

And with that, she turned and took off sprinting down the hall, leaping over the guard on the floor before ducking into an elevator.

Aaron was trembling. What were they supposed to do now? He wasn't a soldier... handy with a gun, yes, but not in close quarters where they would have to 'neutralize' rooms. He would be easy prey to the nearest private who knew more about combat tactics than he did.

"You coming?" Davis was already out of the cell, rummaging through the guard's uniform for anything else that might be useful. Keys to the Humvee he had driven in from the perimeter fences. She pocketed them.

"I don't think this is a good idea."

"Don't you dare chicken out on me! After all the shit we've been through and a few hours in a jail cell turns you into a pussy?"

"I-I can't... I-I can't think right now."

There was still Sorenson's blood on his face, spatters of dark reddish-brown that hadn't come off. Troy Sorenson's *blood* on his *skin*. He wanted to throw up and tried to force the image out of his head.

"You let me do the thinking for you. First rule of combat: do what your CO says and you'll live. Sorensen didn't follow my orders and he's dead because of it. My goal is to get you and the Keldar out of here alive. You freak out and disobey, you're gonna end up like Troy."

"But..."

Aaron needed to *think*. If his mind had been preoccupied with the cell before, what they would do to him eventually, whether he would actually see Seattle again... if his mind had been dwelling on those things before, it was now dwelling on something else.

"Hey! No time for sorrows. You coming?" Davis was waiting, her face drawn.

"Yeah..." Aaron jogged after her, snapping back to reality. "What do you think changed her mind?"

Davis shook her head. "I don't know... I'm gonna court martial her ass for blowing up the ship and for killing Troy. But I don't know. My mama always said the Lord works in mysterious ways. Well... this is some mysterious shit."

Aaron nodded as they made a right turn, checking the hallway with a quick glance before moving around the corner and heading down it. A quick elevator ride up two levels and they would be in D Block. Then what?

The elevator doors slid closed in front of them.

“Do you think we should be saving them?” asked Aaron, his voice low.

Davis turned to him, her shoulders backing away. “Are you kidding?! We wouldn’t be here if they hadn’t helped us. Why? What’s on your mind?”

“Nothing, it’s just that... it’s just that...” He couldn’t say it. He absolutely *could not* say it.

“What? You and Brec?”

He jerked his head up from staring at the diamond plate floor of the elevator.

“That’s it, isn’t it. And you thought I wouldn’t notice...”

“I... notice what?”

“C’mon... the way you stared at him? And you locked yourself in your room because you couldn’t handle it. It’s some crazy drama you got going on in your head.

“You know, everything happens for a reason. When I was a kid, my mama started living with her boyfriend. Not my daddy. And I was mad... so mad at her. Because I missed my daddy. She never let him come around and I got so heated with her. And my grandma saw me one day, not talking to this guy, just ignoring him like he was nobody and you know what she said?”

Aaron shook his head.

“She said God puts people in our lives so they can teach us new things about the world and about ourselves. Now it’s hard to think right now what purpose they may serve... like the commander... I’m not sure what the Lord wants me to learn from her, but I’m gonna look for things ‘cause it’ll make life easier.”

Ding.

The elevator stopped and the doors slid open. The infirmary was ahead on the right, the lab on the left. The hallway was deserted.

“Hey, did you hear me?”

“Huh?” Aaron was deep in thought again.

“I said you go push that alarm inside that third door. It will trip the safety seals for the whole block.”

Aaron could see it clearly, a red emergency panel mounted on a wall inside a glassy room adjacent to the infirmary. It looked like a fire alarm.

“There’s guards on the other side of that door,” she said pointing to the end of the hall, “and at the top of the elevator shaft. You seal the doors and you’ll only have them to deal with and I doubt they’re armed.” She pointed to the two technicians who were in hazmat suits, looking at protein structures on a computer monitor in the laboratory. “I’m going to go upstairs and make sure everything is clear to the tarmac. Once you trip the alarm, these doors...” She motioned with her gun. “These doors will seal, so make sure you’re out of the rooms, reach in, hit it, and then run for the elevator. The alarm will alert the whole compound, so give me, say... well... give me 6-7 minutes to get up there and clear everything before you hit the alarm. Then run like hell and bring them all with you. We’ve got maybe two minutes before a security team gets here. Got it?”

“Wait a few minutes, hit the alarm, get them into the elevator and up to the surface. Yeah?”

“Yeah.”

“OK.”

“I shouldn’t say this, but I’m gonna... it’s been a pleasure working with you.”

“Likewise.”

Then she was gone, the elevator doors closing on her small dark frame as she checked the pistol.

She was coming back, right? Aaron had to wonder as he stood for a time in the hall outside the elevator, the gleaming white VCT tiles on the floor reflecting a cold, sterile light up into his face.

Then he realized if he could see the technicians, they could see him if they turned around. He ducked down low against the wall of the corridor, crawling towards the infirmary. He had been in here just a few weeks prior when the men in suits had brought him from his dad’s funeral... God, had it already been a month?

He reached the door and slowly slid it open, praying the movement wouldn’t attract the attention of the technicians. He scurried inside, rising slightly to peer over the low wall and across the hall at the technicians. They were turning towards him... on their way back to the infirmary. He slid the door closed and hid against the cold cement block wall.

The Keldar eyed him with wide eyes, tight lipped grimaces, silence. Five in all... Lomi was on the floor, barely conscious, his breathing shallow amid the gunshot wound to the upper part of his abdomen. Aaron was repulsed by the blood.

A light-green haired woman leaned over him, dabbing at the bloody wound with a portion of her uniform that she had torn off. A similar strip of cloth was wrapped around her ankle where a bullet was lodged. A man had a wound in his shoulder which he squeezed, gritting his teeth intermittently, thick dark blood seeping through his fingers and running down his forearm. The other two men were sitting on the examination table, one with a head wound and the other with a hole in his hand, the flesh turning whitish blue amid the blood and black.

They hadn't been treated at all. Aaron felt his hands grow clammy as his stomach threatened to turn upside down.

How many countless hours they been here and the Keldar had not been treated *at all*. Not a bandage, not an antibacterial wipe, not even a few rags to mop up the blood which was smeared on the floor, handprints on the wall, and burdened the air with a sickening scent.

Aaron prayed they didn't have any blood-borne diseases... the 'gay curse' as his friend called it. The innate fear of blood. The terror that any cough might be the first symptom of HIV infection, regardless of condom usage or sexual activity. The panic involved with getting tested, even when he knew what the result would be.

The gay curse.

It was irrational and he settled his nerves.

"I'm here to help you. Do any of you speak English? Did he teach you?" he said, pointing to Lomi.

"A-Aaron? You here?"

"Shit..."

Lomi was awake and Aaron scrambled across the tiles to look into his face.

"Hey... Lomi, I'm sorry... I had no idea..."

"I know." His voice was barely above a whisper. "I t-told Brec... you must tell him as well."

“I’m getting you guys out of here. Captain Davis is upstairs right now, your ship is still out on the tarmac... we’ll get you up there and you guys can fly home.”

Lomi cracked a smile, his teeth stained with blood. “Home would be... very good.”

Aaron bit his lip.

“B-Behind you...”

“Huh?”

“Look behind you!” Lomi almost spat out the words, struggling to sit up against the wall.

Aaron spun around to see the two technicians sliding the door open. They froze upon seeing him and he felt his grip tighten around the pistol still in his hand.

Quickly...

Pop-pop... pop.

The gun was loud, echoing in the chamber as the Keldar wailed and covered their ears. Both technicians were down, the sound of the gun ringing in Aaron’s ears and a puff of heat stinging the web between his thumb and forefinger.

Shit shit shit shit shit. Thou shalt not kill. He shelved the debate for another time.

“I’ve got to get you guys out before they come through that door...” He looked at Lomi. He would have to carry or drag him out; the man was in no shape to walk at all. “I’ll come back for you,” he said. “You guys, come on!” Aaron stood and waved the Keldar towards him to usher them into the hall. They remained motionless.

“Kitani’a sa mini’i...” Lomi muttered, urging them on.

Slowly, the woman rose from Lomi’s side and limped to the man with the shoulder wound. The other two men followed suit, sliding off the examination table and easing their way to the door, eyes trained on the Human.

“Where’s Brec? And Enfir? Na Brec i Enfir?”

That caught their attention. The woman pointed. “Qui,” she said, pointing to the door near the end of the corridor.

Aaron motioned them out into the hallway, easing them into the bright white and helping them so as not to trip over the bodies of the technicians.

“Go there... Kitani’a na.” He pointed to the elevator and the small group began limping down the hall at a snail’s pace.

Aaron looked the other way at the door. There were guards behind it... or so Shanika had said. But she hadn’t said how many. He *had* to chance it... Lomi was in no condition to walk and he could not carry him alone. He needed Brec and Enfir and... wasn’t there one more? Yes, he had seen him briefly before they were separated.

Slowly, ever so slowly, he approached the door. Shouldn’t they have already come in by now? They had to have heard the gunshots... they should be breaking down the door, flooding in with their little biohazard suits on, guns drawn.

Then he heard it, the low metallic click of the door lock and the air seal undoing itself.

Aaron flattened himself against the wall near the hinges. Would it swing in? Yes, doors always swung towards their hinges and it would be a push door because it led to the elevator in the event of an emergency... but they weren't supposed to take elevators, were they? Weren't you always supposed to take the stairs? Aaron had sworn he had read that on a sign somewhere before... maybe that was only in the case of fire...

The door opened, slowly encroaching on his field of vision. He saw the barrel of the rifle emerge first beyond the stark whitewashed metal of the door. They could easily shoot the Keldar... they were dead ahead in the hallway, heading for the elevator. He could push the door closed. Hard. But he would only get one shot...

Aaron leapt forward from his spot in the corner and fell against the door with all his weight, trying to slam it shut.

"Ow fuck!"

A female voice. Familiar. It was Christensen.

"Oh... sorry... I thought..."

"Jesus Christ, Ridgewood..." She was rubbing her arm as she slipped from between the door and its frame. "Put a gun in your hand and suddenly you're fucking Rambo. You looking for them?"

She turned back through the door and ushered Enfir, the other Keldar, and lastly Brec into the hallway, motioning with the AR-15 she was carrying. Beyond them and down the hall, Aaron could see another door, this one glowing an angry red around its edges.

"Where are the guards?"

"I gave them a break. Said Kurovec wanted me to watch the prisoners for a while. As soon as they left I sealed it. It should keep them out for a few minutes." She was smiling again.

"OK I'm gonna hit the alarm in this room once everyone is in the elevators."

"Good idea. Get them out." She gave him a brief clap on his shoulder and then headed back into the room, pulling the door shut behind her.

“OK Enfir and you... whatever your name is. Help them. You guys go up. Push ‘G’ inside the elevator. G? You know what G is?”

Enfir looked at Brec who nodded and then the two were off, sprinting down the hall away from Brec & Aaron to join their comrades and ease them into the elevator. There was some moaning as the female struck her ankle on the door jamb heading into the tiny lift, but then the doors closed and Aaron was left alone with Brec for a moment. Their eyes met across the hallway.

Freight tra-

There wasn’t time.

“Lomi is here. You have to help me. I can’t carry him alone...” Aaron rushed back into the infirmary and knelt near Lomi. “I can carry his feet... can you grab his shoulders?”

Brec said nothing and instead moved to kneel alongside Lomi and looked at his wounds, frowning.

He knew.

Brec slid his arms under Lomi’s body and lifted him up effortlessly, cradling his mentor close to his chest and backing away from the wall. Blood dripped from Lomi’s clothing onto the floor, a wide pool suddenly revealed where his body had been laying.

Aaron backed away, the smell of warm blood making him queasy, and looked down the hall. Not now, not here... he tried to take deep breaths, his gut rising into his chest.

They needed to recall the elevator. He could hear the pop-pop-pop on the other side of the door. Christensen...

He stumbled down to the control room, off balance and nauseous, reached inside, and slammed his palm down on the red alarm button.

Instantly, the safety doors to the infirmary began sliding shut, a red light wailing somewhere at the end of the corridor above the elevator doors. “This way!” he shouted as Brec emerged from the infirmary, Lomi slung across his arms like a bundle of sheets.

Aaron pushed the button for the elevator.

He pushed it again.

Then again and again, watching the light impatiently and listening for the counterweights to drop past their floor with a barely audible thud-thud.

Brec was there, staring straight down into the bullet wound which Lomi had weakly tried to cover with his hands.

Aaron tried to get his attention. "Brec, I... I didn't know."

Nothing.

"I'm serious, I had no idea they were planning to do this... They even killed Sorenson. You know the blonde guy who was with us? They killed him." He pushed the button again. Where the hell was the damned elevator? "I don't know what I can say to make you believe me."

Nothing.

They stood in silence for a long while until at last the elevator doors opened.

Ding.

There was blood inside the elevator from its previous occupants, but no bullet holes... that was a good sign.

Brec entered first, turning sideways so as not to smack Lomi's head on the wall. Aaron followed and pushed the blood-smeared 'G' button, the pistol suddenly very heavy in his hand. How much did it weigh?

Up they went, slowly, calmly, as though nothing were wrong despite the crisis now below them. Even a small red light in the elevator lit up next to 'D' to indicate that level was in lockdown.

"Are you alright?" Aaron ventured. "Did they hurt you?"

Still nothing. He gazed ahead, watching the letters change on the indicator as they rose.

"Brec..." Lomi's voice was so small, losing its articulation.

"Sitani..." Suddenly Brec's voice was there, barely above a whisper.

"Quam vedi'a t-thul mer fata... tu vidi kanesh."

"Kaneshset baidi'i mer tu, sitani... kanesh mer tu."

"We sh-should speak... English... is rude in f-front of him."

Aaron gulped hard and flicked his eyes away, trying to tune them out. He had picked up Brec's words... 'I mourn for you, friend'. If he listened, if he even picked up one word about

Lomi's daughters or his wife or where he wanted to be buried, he would lose it, sharp pains stabbing through his chest as the gun weighed down his left hand. He stared at the floor, looking at the diamond plate, all the little lines at right angles, wishing he could disappear into a wall and leave them alone with one another.

He wanted to cry for Brec, for the pain he knew the man was feeling deep inside. It had to cut to the core... if it was half as bad as what Aaron had felt when his father had died, then it was unbearable, core-cutting pain. He wanted to cry and hug Brec and do anything... absolutely anything to make him smile again.

The debate was settling itself in his head, the confusion clearing. Something about Brec felt right. Despite all the sorrow and the tears and the blood and the ache in the pit of his stomach, it felt right.

More right than anything had ever felt in his life.

The doors opened.

Ding.

No Shanika, no soldiers, no Keldar ship. Just an empty hangar, its doors opened to the desert. Heat poured in from the sunlit sands and Aaron could see the waves rising from the asphalt. They stepped forward and suddenly the doors behind them closed as the elevator was recalled. Someone had gotten past Christensen...

Where was everyone?

They had a minute... maybe two before the doors would open again and not in a good way. There were some crates across the hangar behind which they could hide. That was an option. There was the tarmac outside the hangar door, but they wouldn't make it far exposed and in the open. Maybe if he could steal a car? But there was no way they'd make it through the security checkpoint and out into Nevada.

Where was Davis? Had they caught her? Taken her prisoner again? Aaron's mind raced. Maybe they'd killed her...

But then the roar of an engine sounded and a pale brown and tan Humvee came careening around through the open doors of the hangar. Its cloth top was gone, leaving the seats and bed exposed in the searing heat of Nevada's midday.

“Come on!” Davis was shouting out the driver’s side window. “They’re prepping the ship!”

The Humvee screeched to a stop in front of them and Brec gingerly crawled into the back seat, never once letting go of Lomi whose consciousness was drifting. Aaron shut the doors and then jogged around to climb into the passenger side as Davis slammed on the accelerator, speeding around in a big arc and making a run for the hangar doors.

From the corner of his eye he saw the triangle above the elevator turn red. His blood pressure soared.

Ding.

“Get down!”

Gunfire roared through the hangar, echoing down at them from the ceiling over the snarl of the engine as soldiers in biohazard suits poured out of the elevator and opened fire on the Humvee.

“Wooo they’re mad!” said Davis, downshifting to pick up torque, then upshifting again as they approached the door.

A bullet struck the back of Aaron’s seat with a metallic clank, whizzing over Brec who was crouched down in the rear footwell, covering Lomi with his own body as best he could.

In moments they had cleared the hangar and were out in the open, hot sun beating down on them from the afternoon sky. With no top, wind gusted through the Humvee at breakneck speed, a hairdryer blowing in Aaron’s face. He glanced in the passenger side mirror.

“Shit...” Four pickup trucks were in pursuit, machine guns mounted into their beds. “Looks like a fucking Mexican drug cartel,” said Aaron.

“Huh?” Shanika checked her mirror. “Yeah they like those Chevys... Problem is they’re a hell of alot faster than we are.”

“What do we do?”

They were shouting over the blustering wind. The Keldar ship was still almost a half mile away, glittering chrome in the sunlight on the hot tarmac.

“Take your best shot, I guess. They don’t stock these with any weapons,” she said, motioning to the Humvee.

Aaron nodded and crawled between the seats, over Brec and Lomi, and into the bed of the truck. Crouching down behind the tailgate, he flicked off the pistol’s safety and then took careful aim. It was only a Beretta... not much, but it would have to do.

Pop-pop.

Nothing. He looked back and caught Brec scowling at him. As if he could do any better under the circumstances!

Again.

Pop-pop.

One of the trucks turned sharply and struck something on the runway, blowing a tire. The other three were gaining, their engines roaring as a hail of gunfire began from the rifles mounted in their beds.

Aaron ducked behind the tailgate, praying it was armored. He snapped up again, aimed for the driver of the center truck... ‘deep breath, exhale when you shoot,’ his dad had always said.

Pop.

The truck swerved to the left, striking the other pickup along the front fender and sending it pitching off the runway and into the rocky terrain. Someone in the front seat grabbed the wheel and pulled it hard to the right... too hard and the truck made a tight turn right into the path of the third Chevy. The resulting fireball as the two trucks collided sent Aaron flying back in the bed of the Humvee and rattled the windshield.

“You still back there?” Davis was shouting over her shoulder.

“Yeah... I think...” His head pounded from smacking against the back of the seat.

“Get them up. The ship is already airborne.”

Aaron turned and looked up to see the Keldar ship, now just several yards away, floating in the air and gaining speed as it travelled down the runway. Davis aligned the Humvee with it and pulled in close, the rear ramp of the ship lowered and hovering in the air just a few feet from the top of the windshield.

“Brec, you gotta get him up. They’re already taking off...”

Brec glanced over his shoulder, then back at Lomi and picked him up once more, standing in the rear seat of the Humvee and turning to face the ship. Enfir was there, on the ramp, laying down with his arms outstretched over the edge. Brec's legs were unsteady and he pitched backwards as Shanika swerved to miss a pothole in the old runway.

Aaron caught him, buckling under the weight and pushing with all his might. Brec steadied and handed Lomi off to Enfir who, in a surprising show of strength, curled backwards up the ramp, eventually standing and disappearing into the ship with the much bulkier man draped over his shoulders.

Brec was next, reaching for the edge of the ramp as the wind whipped past him.

Aaron felt his blood rush.

"Brec!" He stepped closer to him, holding the top edge of the doorframe and shouting into his ear over the wind and engine noise. "Brec, I'm sorry all of this happened."

Brec turned to look at him suddenly, his hands gripping the ramp. "You knew about this."

"No, I swear I didn't!"

"You used me."

Aaron blanched. "I just saved your life!"

"And Lomi will die because of you."

"I didn't know! They didn't even tell the comma-"

"Shani'tata Brec!" Enfir was at the top of the ramp again, shouting at them. "Shani'i Aaron!"

Did he just say to come with them?

Aaron looked at Enfir who was smiling at him. He could get onboard and go back to Keldar Prime with them. And he would have plenty of time to explain everything.

Brec did a pull up and was on the ramp instantly. Aaron stepped onto the console between the front seats and gripped the edge, throwing the gun into the passenger seat.

"Shanika! They'll take us!"

Davis glanced up at him and shook her head. "You go. I've got an appointment with JAG and the New York Times tonight."

Aaron looked over his shoulder at her and she smiled at him. "You sure?"

“Yeah! Go!” She looked back at the tarmac, then up at him. “Get outta here, crazy white boy!”

He grinned and forced all his strength into his arms, pulling himself up and onto the ramp, heaving his chest down onto the cold metal as the Humvee slowed and fell back from its pursuit.

Brec was there, gripping his shoulders and he looked up into the warm red eyes, losing himself for an instant. Aaron could feel the grip on his shoulders tighten, painfully so, and then realized he was sliding backwards off the ramp.

“Wait! Please!” Aaron could feel his stomach hanging free now in the air as the ship revved its engines.

“Do not return to Shanada or I will kill you.”

And with that, Brec shoved him back off the ramp, sending him in a freefall down to the tarmac.

Aaron felt his adrenaline rush as he fell, backwards and down down down...

Crunch!

The impact stung all the way through to his chest and he managed to let most of his shoulders strike the pavement before his head smacked the ground. Stars and a tingling pain in his nose. Where was his air? Could he feel his lungs?

He gasped, struggling for air and panicking for a moment, worried he was paralyzed. But it had been over a decade since he'd had the wind knocked out of him and the feeling was foreign. Then he felt the heat of the asphalt burning into his calves. His breath returned, hot air flooding into his lungs as he sat up slowly, rubbing his head and fighting the dizziness. He looked up at the ramp, now 20 feet above his head. Brec was there, his fingers curled around the edge as he stared down at him.

And then the ramp began to rise, closing the gap between the lower edge and the hull... tighter and tighter and tighter until Brec's face was all that was visible. But then Brec's face was gone and the silvery hull of the ship sealed itself tightly for the journey into space. He heard the engines rev even higher, an electromagnetic pulse flopping around in the air surrounding his

body and the ship rose, faster than anything Aaron had ever seen, hurtling up into the atmosphere until it disappeared from his sight.

Phoenix gets hot early during the day and Davis is already sweating in her cutoffs and bright yellow tank top. She wears her gold hoops and big, oversized white plastic Dolce & Gabanna sunglasses, her dark skin glowing in the hot sun.

“You know, I think what pisses me off most about it looking back is that all we ever had to do was ask. You know? If we’d just said ‘hey... we need your help with this technology’, they would have bent over backwards to help us.” She takes another drink of iced tea, draining her glass before promptly refilling it from the pitcher that sits on the little wooden yard table.

“I think Kurovec just got to the point where he didn’t believe that there were good people left anymore and *that*... well, that colored a lot of his actions. Like, it didn’t occur to him that aliens might not be so protective of their technology as we are. Don’t bother asking or negotiating. Just use force. It’s Human foreign policy applied to an alien civilization that makes ours look like tribe living out in the jungle.” She shakes her head, the massive white sunglasses glittering in the sun. “I mean, look at the science fiction movies out there... *War of the Worlds*, *Star Wars*, *Alien*, *Independence Day*, *District 9*... there’s a reason we assume they’re gonna be violent. I’m sure Aaron would tell you as a sociologist we’re projecting our own values onto this other culture. Stupid stupid stupid.”

She looks at me. “And yes, you can write that in your book. I said it was a stupid decision no matter what congress says.”⁷⁰

“And what did you do about Christensen?” I ask.

Shanika turns to me and lowers her sunglasses to stare me down. “Ooooh I court martialed that bitch! Aaron and I drove out to Twentynine Palms that afternoon, talked to General Irwin, Aaron corroborated the story and when the general got his hands on Aurora and

⁷⁰ The Senate Judiciary Committee’s investigation into Jan Kurovec’s involvement with DXA and the Gliese mission was “inconclusive” and as a result, he was not tried for any crimes. However, Secretary of State Clinton removed him from his post shortly afterward in January of 2011, stating that “the media attention around Jan Kurovec hinders his ability to perform at the level expected of by the Department of State.” (United States. Department of State. "Leadership Changes Within the Division for Xenomorphic Affairs." Press Release. 19 Jan. 2011.)

checked the sensor logs... oh baby. He's even bringing in Enfir to testify about the C4 residue... not sure if an alien can testify in court, but I guess we'll find out.⁷¹

"I hope they fry her ass for what she did... and I don't even support the death penalty." She settles back into her lawn chair. "She's remorseful, so she'll get life in prison. But I told them, I'm *not* showing up in court. I'm not gonna face her, testify in front of her, none of that shit. I see her again, she's dead. I'll pop that bitch in the middle of the God damned street."

"So you haven't forgiven her?" I figure it's a long shot, but maybe...

"Oh hell no. Guess who had to go tell Mitch Jenner's sister that her baby brother was dead? Me. Only family he had and the poor lady almost had a heart attack when she found out. His niece is *ten years old*... cried and cried and cried.

"And I met with Troy's girlfriend... You know, the commander was supposed to pick people who *didn't* have families. Instead, you know how many relatives I visited? Aunts, uncles, grandparents... Seventeen. That's how many.

"No, I did my part as the ranking officer who survived the mission." She takes another sip of tea. "No one should have to go through what I did. Not saying me and Aaron are victims... Not by a long shot. Troy and Mitch were victims. Those Marines strapped down in the cargo hold... *they* were victims. But no one should have to deal with everything that I did just because of one person. So to answer your question, no, I haven't forgiven her and I won't."

She takes a few deep breaths of the warm air blowing in from the desert now. It's dry and she eyes a bottle of sunscreen. The label touts that it has cocoa butter in it.

"I did get to see Aaron a few weeks ago... I was up at McChord and met him for coffee. Good kid. Shame about him and Brec. Can't imagine what it's like to be confused like that, but I guess we all have our things to work on, right?"

⁷¹ After his meeting with Captain Davis and Aaron Ridgewood, General Ken Irwin urged then Secretary of Defense Robert Gates and the Air Force Secretary Michael Donley to remove General Brandes from his command of the Groom Lake facility. Gates and Donley agreed, placing Irwin in charge of the ensuing investigation into the Air Force's involvement in the Gliese mission. Irwin would eventually involve the Joint Chiefs of Staff when it became evident that multiple branches of the military took part in the operation.

She smiles and drains her glass, the ice cubes clattering as she sets it down. She grabs the pitcher again, eyeing the FBI agent who has just come through the side gate and into her backyard. He waves and she nods to him.

“There’s a glass in the kitchen.”

“Not when I’m on duty,” he says.

“Bullshit. Grab a glass.” She turns to me. “You want some more?” Without even waiting for an answer, she fills my glass to the brim and settles back into her chair, sighing in the shade of the orange tree.⁷²

⁷² Captain Shanika Davis was promoted to major in April of 2011. For her responsibility and commitment to the safe return of the surviving Aurora crew as well as the Keldar prisoners, she was awarded the Air Force Distinguished Service Medal, the first non-retired or non-general to receive the commendation. As the Obama administration opened negotiations with the Keldar during the summer of 2011, she served as DXA’s primary flight instructor for the Aurora program. She currently lives in Phoenix (with her cactus collection).

The hills around Florence are quiet as Commander Christensen sulks in silence. She's barely touched her lunch and it sits under the buzzing florescent lights in the storage room which has been her cell for the last eight months. There has been a court martial and a civil trial, numerous testimonies before the Senate Judiciary Committee, a handful of meetings with top brass from the CIA, even a brief visit from the now-elusive Kurovec a week earlier.

"I won't do time," she says. "They can sentence all they want, but Kurovec said they'll get me out on a technicality. They need me. I'm the only one who knows both sides of the situation.'""

She's right.

In the months following the Gliese mission, Christensen had proven invaluable in advising both the Obama administration and the CIA in how to handle opening relations with the Keldar.

And the situation was precarious.

Despite their disastrous first encounter on Earth, the Keldar council had been quick to enter into negotiations with the Obama administration in the weeks following the Gliese mission, sending two ships (this time with their own security detail) to meet with Secretary of State Clinton and accept her formal apology for the disaster at Groom Lake.

Their acceptance came as a relief to Clinton who, though she had ordered the mission to proceed with initiating first contact, had not expected her own direct report to act so carelessly. Kurovec had given her entire department a bad name and she was now tasked with not only replacing him as head of DXA, but also putting in place new checks and balances within the State Department *and* rebuilding the shredded relationship with the Keldar.

While Kurovec could be easily replaced and DXA decontaminated from top to bottom, scrounging resources for the new Keldar-American relationship would prove difficult. Captain Davis had spent some time with the Keldar and while her engineering expertise had proven useful on the Aurora program, she was hardly a diplomat. Moreover, DXA had swallowed her up again as a flight instructor and her time was limited as the push to construct more Auroras and

train crews became the top priority of the U.S. government. As such, Clinton received precious little advice from her.⁷³

Aaron Ridgewood, though he had written the book (literally) on the Keldar, was reluctant to participate. His instant celebrity as the only non-military, non-criminal survivor of the mission was guaranteed as soon as the news of alien encounters hit the world media. There were interviews, spots on the evening news where he consulted with political analysts, and even a brief meeting with President Obama to receive the Presidential Medal of Freedom for his courage in landing the Aurora and later freeing the Keldar hostages. He was tired, retreating to his loft in Seattle, and by the time Clinton got ahold of him, he turned her down, suggesting she simply read a copy of his book.

That left Christensen who, though a public enemy in the eyes of the press, was a gold mine of information. Not only had she met the aliens, but she had spoken to their council and convinced them to return to Earth with her. Moreover, she knew the ins and outs of DXA's research and information gathering over the past six decades of UFO investigations and was able to provide Clinton with detailed specifications of the Tal'kanor, their ships, and their continued interest in Earth despite the comparatively reserved nature of the Keldar and Darianu.⁷⁴

She became, for many reasons, a high profile target. Not only did the Keldar want her head for her betrayal of Lomi Or'dan, but so did the Navy for purposefully killing her crew, DXA for revealing classified information about the events at Groom Lake to unauthorized persons, and the American public who, jaded by what they read online and saw on TV, placed her at fault for the entire botched encounter at Area 51.

And for this, Clinton had her confined in ADX Florence pending the end of her trials. Interestingly, Christensen had refused to take a plea bargain.

"I deserve to do time," she says. "I deserve the death penalty... and I don't mean that in some depressed way. It's not like I *want* to die. But I killed how many people? Fifteen on the

⁷³ Davis was famously quoted when, during her testimony before congress, she was asked by a senator how best to handle the Keldar. Davis' response was "It's easy... just don't shoot them."

⁷⁴ As of this writing, it is widely assumed that the Tal'kanor were responsible for the myriad of UFO encounters in the 20th century. As Keldar-Human relations have strengthened, the Tal'kanor have discontinued investigative missions to Earth.

Aurora alone... although I'm not responsible for Chrissy.⁷⁵ Then Troy... that was in cold blood." She cracks a little. "I'm guilty of everything they accused me of, but they'll let me out. They need me too much."

I sit back in the metal chair, watching her. "Do you have regrets?"

She smiles. "Of course I do. Yes and no. I mean, if I didn't do what I did, we wouldn't be having this conversation today. The Keldar and the Tal'kanor would have fought for Gliese and maybe the Keldar wouldn't have bothered to pick up the phone again and send us some equations. Or we'd still be talking to them over tachyon beams. Or maybe they'd have come here first and God only knows how that would have gone... can you imagine? We'd have shot them down with anti-aircraft missiles. And then we *really* would have had a diplomatic crisis.

"No, in a way it's best that I did what I did and that things turned out the way they did. Flying saucers landing over Texas would have been horrible and every hick with a mullet and a beer belly would have grabbed his shotgun. But instead, we managed to give off the illusion that we were in control of the whole encounter. And I think that made a lot of people more comfortable with the aliens."

Twisted logic, but probably correct. Gallup polls show Americans overwhelmingly favor the direction the Obama administration has taken the relationship with the Keldar.⁷⁶

I adjust the recorder and aim it at her. "Do you have anything you wish you could say to Captain Davis or Aaron Ridgewood? Or the Keldar?"

She pauses, thinking for a moment. Her arms are uncrossed now and she sits with her hands folded in her lap. All at once, she is fair again, a career woman lost in the orange jumpsuit, out of place in this storage room that is now her cell.

"To Davis I'd say I'm sorry... for a lot of things. Now that wouldn't change a damned thing with her, but I mean it. I don't know what I'd say to Aaron. I'd tell the Keldar that they're better than Humans for the way they've forgiven us... They understood that it was one isolated

⁷⁵ Although the Keldar later launched a rescue mission, Chrissy Olivier, the woman who ran terrified from the Aurora upon landing on Gliese, was never found. It is presumed she died of exposure or was killed by any of the 12 carnivores native to the planet that are large enough to take down a Human. Some conspiracy theorists believe she is still alive, living in the wilds of Gliese and waiting for the Aurora to return.

⁷⁶ <http://www.gallup.com/poll/159286/Americans-View-Keldar-As-Allies.aspx>

branch of the government who got carried away and they didn't hold it against our species as a whole. I mean, that's... that's better than any Human would have done."

There's a knock at the glass in the door. The guard is coming in.

"Time for me to go." She sighs. "Sentencing hearings are in a few weeks. Watch how they go. And I guarantee nothing will happen to Kurovec." She shrugs. "Politics."

The guard gently touches her shoulder and she stands, taking small steps towards the door so as not to strain her angles against the shackles. I imagine her without them, an absolute picture of confidence, tall, composed, and with long, purposeful strides.

She turns back to me at the door.

"Actually I know what I'd say to Aaron. I'd tell him to be happy with himself."

She smiles slightly and for a moment, I see a young woman instead of the monster the media has made her out to be. Had she known it would end like this, would she have still joined the Navy?

Probably.⁷⁷

⁷⁷ Laura Christensen was dishonorably discharged from the Navy and sentenced to life imprisonment without parole for the murder of Sergeant Troy Sorenson. All other charges against her were dropped and days after her sentence, she was officially pardoned upon a recommendation from the Secretary of State. Her pardon was hotly contested and is currently under review in the senate. Laura lives in Virginia and is presumed to be working for the government as a consultant for the CIA.

Brec is pacing again, his body armor glinting in the light that pours through the windows behind him. Shanada spaceport is a flurry of activity; rush hour has descended and a few dozen massive cargo ships are landing near an extension of the tram line, a handful of workers with automatic cranes eager to unload their contents. Another (small) shipment of goods made on Earth has arrived after a little less than a week's journey between the two worlds. Made more efficient by detailed mapping of the galaxy, the six day run has yielded a demand for outrageously priced luxury goods of 'specific cultural value' on both planets.⁷⁸

Brec is immune to it.

"I do not understand this 'god'. I asked each Human I have met about it and no one could tell me why they do as he commands when he is not present on Earth."

His normally beautiful voice chopped as he minces his English.

"Everyone, even Aaron, told me god was about love. He wants people to love each other, but forbids it if it is two men or two women. *This* I do not understand. Love is love... you cannot choose when it will happen or who it will be with."

He stops pacing for a moment.

"If I commanded you to eat because you must survive, but not to eat... ah... apples because I did not care for them. *You* like apples, but *I* do not. And you found yourself one day surrounded by apples and you were starving, would you not eat?"

"You *would* eat because it is the natural and right thing to sustain your life. We need love like we need food and air and light... I do *not* understand this god. He is inconsistent, preys on your insecurities." He paces again, shaking his head as he looks at the floor.

"And I do not understand your political system. Why Commander Christensen did those things... why this Jan Kurovec who I never met wanted us dead. They were working for your

⁷⁸ According to the FTC, American cultural exports like rock music albums, the entire anthology of Michael Jackson's music videos, and the bulk of Hollywood cinema are in extraordinarily high demand with old movies setting new box office records as they are released in theaters on the Keldar worlds. Ironically, the top import to the United States from Keldar Prime is food.

government. Your government wishes for peace, then kills my people when we visit your world. And now we trade freely. You are a paradox.”

He sinks down onto the bench, holding his face in his hands and rubbing the blood red hair. It shines and for a moment, he look as though he is crying.

“I am sorry,” he says, still looking at the floor. His voice has smoothed again, the richness back. “I am still angry... not angry with you. I am... I... I miss my friend.”

There is a still silence for a minute. He needs room to calm down.

“Lomi?” I venture.

“Yes.” He sniffles a little and looks up, open emotion on his face as tears stream down. As a Western male from Earth, it is unsettling to see a grown man cry like this and I shift, uncomfortable. “Yes Lomi.”

Lomi was buried with high honor for his unflagging service to the state, a massive mausoleum erected in the northern provinces where his wife and two daughters lived. The funeral had been a state affair, attended by the entire council, the top brass of the Keldar Starmada, and the governors of all the provinces, both planetary and interstellar.

Moreover, Secretary Clinton had requested (and been granted) permission to construct a small memorial to the Keldar and the Humans who perished during the Gliese mission near the Washington Monument. In the middle of the little marble gazebo is a bronze statue of Lomi Or’dan by Keldar sculptor Vin Ja’tar.

Aaron never knew what an important figure Lomi Or’dan had become in Keldar society. Not only were his military accomplishments against the Tal’kanor impressive, but his scientific contributions, including the discovery of and first contact with Humans, were monumental. By the time of his death, Lomi had earned a place in the pantheon of Keldar heroes who traced their fame back to the founders of Keldar Prime.

And ironically, despite his instinctive feelings of betrayal and the loss of his best friend, Brec was the one who stood up for the Humans above all others during the meetings with the

council to determine an appropriate course of action.⁷⁹ It was his unflagging advocacy for the fact that Humans were a fragmented people (and therefore the actions of one did not represent the intent of all) which turned the minds of the council from war to stern diplomacy. There was no doubt: with superior weapons technology and a larger population than all of Earth, the Keldar could easily wipe out the Humans and take their resource-rich world for their own good.

But though vengeful, the Keldar abhorred conflict (even with the Tal'kanor) and Brec's suggestion of granting a second chance was welcomed as a final solution before an all out invasion.

The change in his attitude towards Aaron was more gradual. While he had branded him a liar as they left Earth on that afternoon in September, he knew there was more to the story and felt the physical pull just as much as the Human. The months at home did not make it any easier: more than once, he had found himself staring at the little oil lamp, remembering the night they spent together during Rik Syanek and how irresistible he had found the Human.

Since the interviews began for this book, I have shared many of my notes with Brec, perhaps for the worse. What had been a hurt sense of betrayal has since yielded to deep regret for not having seen through the personal torture Aaron was experiencing.

But how could he have known? The Keldar have no gods or goddesses, no spiritual philosophy, no divine moral code. There is the law and there is veneration of the dead, little else in the way of faith and absolutely nothing even approaching formal religion. Moreover, their society thinks nothing of sexual encounters between consenting adults, male, female, or anything in between. Nothing could have warned him about Aaron's slow descent into misery.

"I think... I pretended not to see what was there. That he was uncomfortable with his... ah... attraction. But I knew what it was. I kept thinking maybe I had offended him or... or maybe he did not like me. But he did like me and he hates himself for it."

"We are all given free will," I counter.

⁷⁹ Upon their return from Earth, the tales of the Keldar expedition were greeted with shock and horror. That a mission of peace had resulted in such insidious injury and death was something expected of the Tal'kanor, not the newly found Humans, and as such, the council took stock of its knowledge of the Humans before allowing further contact to be made. This resulted in the weeklong gap of silence between the Keldar and Washington, causing sheer panic in the Obama administration as contingency plans were made in the event of an invasion force.

“Then he chose to do the wrong thing.”

“Do you think you can judge him? I mean, based on how he grew up.”

“Yes, I can. There is a moment in Keldar lives when we are no longer children and we take responsibility for the person we wish to become. For Aaron, that moment has passed. And now he is rewarded with a book and is famous. I received, as you Humans like to say, a broken heart.”

“So you’re not glad that you met him?”

He looks up at me for a moment. “Sorry?”

“Do you regret meeting him?”

He pauses. “No.”⁸⁰

⁸⁰ In the months after after burying his best friend, Brec Shandur fought in a total of six battles against the Tal’kanor, commanding the Keldar fleet in two. The success of his campaigns earned him the title Lomi Or’dan had once held, “Favorite of Shanada”. Brec eventually returned to Earth as chief of Ambassador Ki’ital’s security detail.

Click click click click click.

Sherman is making his rounds again, inspecting the FBI agent standing near the door. The man bristles slightly, eyeing the dog. They say there are three dog breeds which will take a bullet for their owner: German Shepherds, Chows, and Dobermans.⁸¹ Sherman has barely tolerated the invasion of Aaron's private home by the numerous government officials, attorneys, reporters, and the omnipresent FBI. Never showing himself to be friendly, he always manages to place himself between Aaron and whatever invader is onsite at the time.

Aaron is near the windows, looking out onto the cool gray of the city as the rain comes down. He has his hands in the back pockets of his jeans and leans his shoulder against one of the brick columns that frames the massive walls of glass.

"I don't know what else you want to know... I've told you everything I can remember." He is silent for a moment, the sound of the rain falling outside filling the airspace in his loft. "I think sometimes I create memories when I do these interviews. I feel like everything has kind of evolved since I started telling people what happened."

He turns back around and walks past, sitting on the edge of the sofa again. There's a trace of Speed Stick, faint bleach from his t-shirt, and young male lingering in the air.

"I've had an FBI escort ever since I testified in front of the Senate Judiciary Committee. Um... oh! I took the money they paid me for the mission and paid off my student loans. Did well for myself... especially in this economy."

He looks around the loft, staring out the windows again.

"Book got published... but you knew that. I'm working on the second edition now that we have access to Keldar history... just some details to flesh out. I consulted with Anne Pewter for her textbook on introductory Keldar native.

⁸¹ Dobermans were the original "devil dog", used by the Marines in World War II in the Pacific theater. Their defensive nature and trainability made them ideal companions during the war and numerous accounts of their heroism survive in military records. They were eventually displaced by German Shepherds who, while equally as trainable and intelligent, possessed a better nose for explosives.

“Oh! Laura saved my flag.” He motions to the American flag from his father’s funeral, folded tightly in a glass case on a bookshelf. “I guess after she shot the place up she went and found it with my wallet and stuff. Grabbed Shanika’s purse, the MacBook, my iPhone... everything. Used her one phone call from jail to have UPS come pick it up and deliver it to me. It was really thoughtful of her... I mean, it’s kinda all I have left of my dad, you know?”

His iPhone buzzes on the table in front of him.

“Oh lord... it’s her again,” he says, tossing it back down, annoyed. “This is the office of the Secretary of State calling with an important message for: Aaron... Ridgewood...,” he says, mimicking the automated voice. “It’s Hillary Clinton. She wants me to come work for DXA, be part of the diplomatic attaché or some shit.”

“But you don’t want to do it?” I ask.

“Nope.” He stares out the window again.

Click click click click.

“Hey buddy...” He smooths his hands over Sherman’s ears. “You need to go outside, huh? Yeah? OK we’ll go in a little bit.”

I flick through a few pages on my iPad, looking at the notes I’ve collected over an exhausting four months. Gaining access to ADX Florence, getting permission from the FBI to interview the survivors of the Gliese mission, and the airplane flights back and forth between Seattle, Denver, Phoenix, and my own home in L.A.

This is my last interview and there’s a numb feeling in the center of my chest as I think over my last few questions for Aaron.

“Tell me about God,” I say.

“God... oh, God... dear little capricious God. I don’t know anything about God. I’ll never be a pastor. I know *that*. I can’t imagine preaching the kind of pain and self hate I learned in the Bible. I mean, even now, a hot guy will turn my head and I get this twinge of guilt, you know? I don’t know. I want to believe in God, but it’s a little difficult when I feel like I’m hardwired to be something he doesn’t like. It starts me at a disadvantage and I guess that’s why I think he’s unfair. Or the concept of God is unfair. Why deal me a bad hand and then tell me that it’s my life’s work to get over it?”

“Have you dated since you got back?” I sit back in the Eames chair, nestling into its leather. The rain is slowing outside.

“Hmmm yeah a little. I saw Sean again. I think he was more interested in ‘Aaron Ridgewood’ than me.” Aaron puts quotes around his own name with his fingers as he speaks. “Saw me on TV and thought he’d give me a second try. I’m much better at expressing my feelings now,” he says, grinning. More apple pie and Chevrolet. It’s easy to see why Brec fell so hard for him. “A little too good... didn’t realize what a loser he was and I never heard from him again. Went out on a couple coffee dates. One asshole even gets me to a second dinner date and then says ‘Oh, you know I’m moving to Chicago in two weeks, right?’ No, fuck face, I didn’t know you were moving. Thanks for the heads up on that one.”

He shakes his head. “I don’t know... people just get on my nerves now. Like I said, lack of critical thinking. No one can have an intelligent conversation.

“Hey do you mind walking with me? He needs to go out.” Sherman is at the door, sitting with his back to the FBI agent and watching Aaron. He whines a little. “Alright, alright, buddy... we’ll go in a minute.”

We head out into the Seattle spring, a rainy, misty mess of green and wet. There is a sprawling park nearby and we walk along the gravel path, Sherman trotting at Aaron’s side, a leash clipped to the chain collar. It’s a quiet afternoon... everyone is either working or staying home on a rainy Friday and the park is all but abandoned save for a few schoolgirls who hurry through it, chatting in Mandarin.

The FBI agents keep a good distance behind us, but do more to attract attention than protect Aaron. Their presence is obvious, walking in pairs, the little headsets plugged into their ears. A few more months and the Secretary of State will pull the agents from shadowing Aaron and Shanika, allowing them to return to their old lives. Just a safety precaution during the trials and media frenzies.

But no one knows Aaron here. He’s just another scruffy Seattleite with a dark beard, simple tastes, and a membership at the local co-op grocery store.

He looks up at the sky, his hoodie tight over the top of his head. “I talked to Beth the other day...”

“How did that go?”

“She’s still convinced God has a plan for me and that this is just a test of my faith. Although she was mortified when news leaked of me and Brec fucking. Oh well.”

He looks back down, rainwater dripping from his face. It’s a casual perfection, effortless in its execution and he is completely oblivious to it which makes him even more attractive. I would be lying if I said I hadn’t fallen a little in love with him during our interviews... the unforced masculinity, the raw emotions running so close to the surface of his internal struggles, the polished and sweet mannerisms. Perfect? No. Irresistible? Absolutely.

“And what about Brec?” I’m shivering in my jacket. Why anyone would choose to live in this city is a mystery to me.

“What about him?”

“Just curious if there’s anything you’d say to him.”

“Nope. He shoved me out of a moving spacecraft and told me never to return to Keldar Prime. And I have no trouble honoring that wish.” He’s defiant in his words, his jaw setting as he speaks.

“And if he had changed his mind about you?”

Aaron shakes his head. “I don’t think that the reason we’re brought into this world is to love and be loved. Love is a gift and it’s not meant for everyone. I don’t think it’s meant for me until I’m a little more sure of myself. Right now, it hurts no matter which direction I go. I can be single for the rest of my life and be happy... I have so much to be thankful for at this point.”

I sigh and look at the gravel path. “Don’t you want to see him again?”

He laughs a little. “He’s a beautiful person. A good man.” He purses his lips, thinking. “But no.”

And with that, he turns and walks away, Sherman trotting at his side, disciplined and focused despite whatever smells and other animals might be in the park.

I switch off the voice recorder and wait as the two FBI agents walk past me, nodding in my direction as they follow Aaron back towards his apartment.