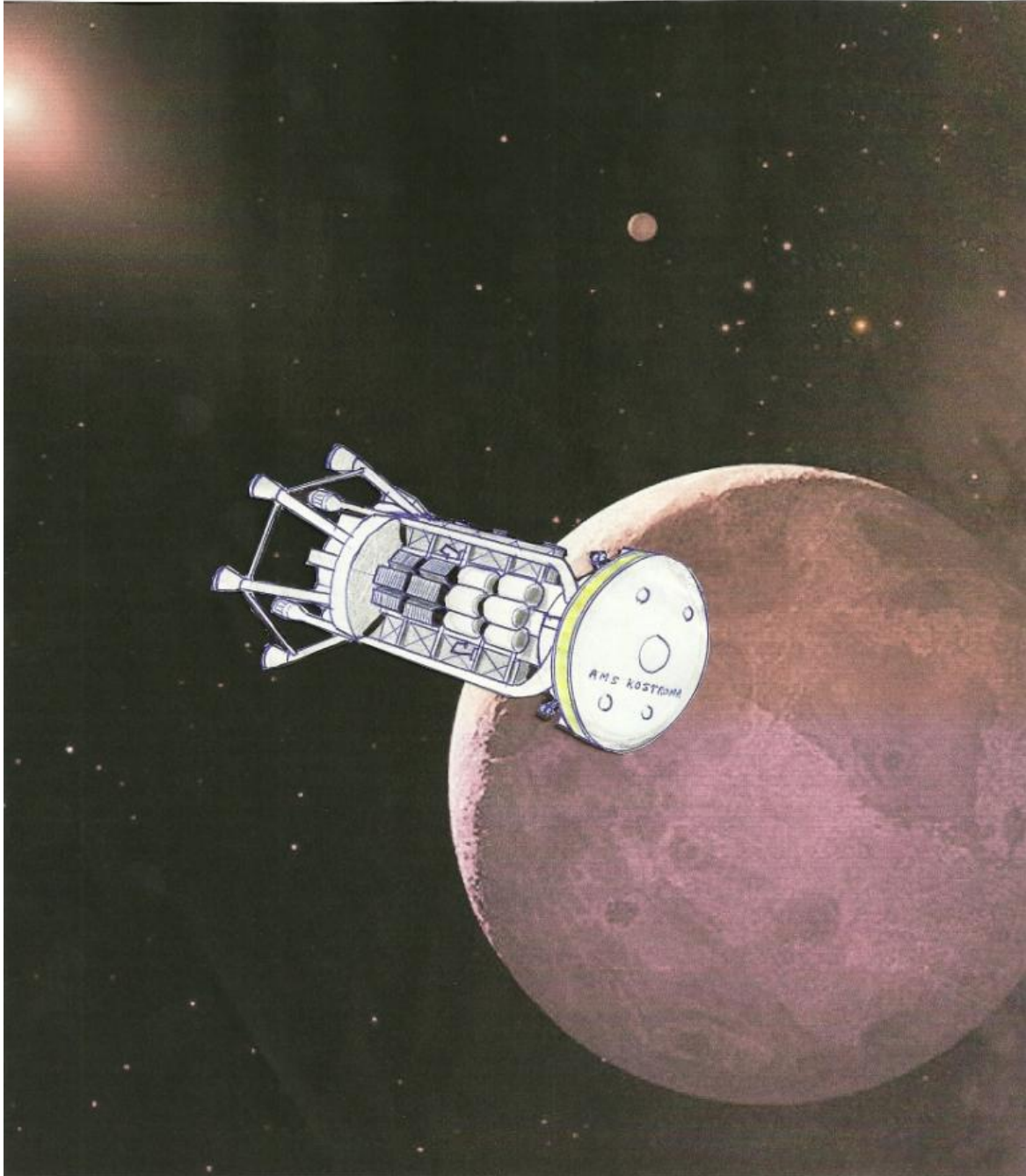


THE ERIS PROTOCOL

By Michel Poulin



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SCIENCE-FICTION NOVEL

By Michel Poulin

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WARNING TO READERS

THIS NOVEL CONTAINS DESCRIPTIONS OF SCENES OF VIOLENCE, SEXUALITY AND CRUDE LANGUAGE AND IS NOT MEANT FOR YOUNG CHILDREN. THIS IS ALSO A WORK OF PURE FICTION AND ANY APPARENT SIMILARITIES WITH PERSONS OR EVENTS OF THE PRESENT ARE FORTUITOUS.

FOREWORD

THIS NOVEL IS A SEQUEL TO THE NOVEL 'JOVIAN UPRISING – 2315'. THE AUTHOR, WHEN WRITING THIS NOVEL IN 2014, USED THE KNOWN INFORMATION AVAILABLE THEN ON THE MAKEUP OF THE SOLAR SYSTEM. HOWEVER, THE RAPID RATE OF ASTRONOMICAL DISCOVERIES MAY MAKE SOME DATA ON PLANETS, MOONS AND ASTEROIDS AS USED IN THIS NOVEL LOOK OUTDATED. FOR THIS, THE AUTHOR ASKS FOR THE INDULGENCE OF THE READERS.

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CHAPTER 1 – A VILLAGE IN SPACE

14:57 (Universal Time)

Thursday, June 7, 2317

Bridge of the A.M.S. KOSTROMA

Low Mars orbit

Solar System

Tina Forster watched quietly the image of Mars' surface on the giant viewing screens of her ship's bridge as the A.M.S. KOSTROMA flew in low orbit around the red planet. Barely eighteen months ago she had led her giant cargo ship, hastily converted for war, in a series of space battles against Terran forces which had seized Mars after it had rebelled against the heavy rule of the Terran Federation. Those battles had proven to be nearly one-sided massacres, with the powerful laser battery and thick anti-radiation bow shield of the KOSTROMA proving too much for the much smaller, relatively lightly armed ships of the Terran Customs Navy. A total of 36 Terran cruisers, frigates and troopships had been destroyed by the KOSTROMA in three separate battles around Mars, with over 32,000 Terran crewmembers and embarked Internal Security Forces troopers killed in the process. In return for such an overwhelming victory, the KOSTROMA, masterfully led in battle by Tina, had suffered only minor damage to its thick, 700 meter-diameter bow shield, and no casualties. The only two casualties suffered by the crew of the cargo ship had come later, during the ground fighting to retake Mars' capital, Ares City, from occupying ISF troops. Tina and her cargo ship, now rated as an armed merchant ship, had destroyed more Terran ships around the Jovian moon of Callisto while fighting to defend the newly formed Spacers League against a Terran task force. Tina, who hated war but had been forced by Terran excesses to fight for the Spacers League, had taken no joy in all that killing. Her worst time in the war had however come as victory was already nearly assured, when an ISF secret facility near the city of Lagos, in Nigeria, had to be destroyed by an orbital strike. That facility had been producing a deadly chemical agent meant to exterminate Spacers in their space cities, so there had been no choice but to destroy it. However, the underground production center had necessitated the use of a devastating kinetic energy weapon, in

essence a rocket-propelled asteroid. The strike from the space battle station MJOLNIR had utterly destroyed the facility, but it had also destroyed the nearby city of Lagos, killing over 26 million persons in the process. That mass killing had impacted heavily on Tina's psyche and she had needed weeks to go over her guilt and subsequent depression. She was now over her mental distress but she fervently hoped that she would never have to kill again.

"Tina, the shuttle with the Martian delegation is approaching. It will enter our main hangar in about six minutes. It will be in Craft Hangar Number 3." The warning from Patricia O'Neil, the redhead beauty presently manning the bridge sensors station, took Tina out of her thoughts and made her nod her head.

"Very well! I will go down now to the Hangar Deck. Tell Natalia, Piotr and Winnie to join me there."

"Will do!"

Turning around, Tina walked to the bank of elevator shafts situated under the upper central platform of the multi-layered bridge complex, itself situated in the center of a huge sphere whose internal surface was covered by a 3D holographic display screen. Calling up one of the cabins, she had only to wait a few seconds before the doors of the shaft opened and she could step inside a cabin. She next pressed the button for Level 7, the Hangar Deck, situated sixteen levels and 117 meters below. As far down as that would sound to a visitor, this was however a short trip compared to one down the full length of the KOSTROMA, which measured 1,750 meters from its bow to the undersurface of the giant landing legs of the cargo ship. Tina was rightly proud of her ship, which was presently the sixth largest spaceship in existence and also the fastest cargo ship in the Solar System, with a maximum cargo capacity of twenty million metric tons, most of it inside detachable cargo modules hooked to its flanks.

Tina walked out of the cabin as soon as it stopped on Level 7 and, crossing the rotunda surrounding the central spine shaft of the ship, went through a crew locker room and a craft maintenance workshop before arriving at the airlock door of the Craft Hangar Number 3. She met only two crewmembers on her way from the bridge, but saw over twenty work robots of various types, including cleaning robots, on that same trip. Despite its gargantuan size, the KOSTROMA had a crew of only 280 men and women, but also had an army of over 1,800 robots of various designs that took care of the

routine maintenance and cleaning tasks, plus 400 robots specialized in firefighting and emergency repairs. All those robots could in turn receive directives or pertinent data from the ship's master computer, 'Spirit', a super computer possessing a high degree of artificial intelligence. If things went really bad and the crew became incapacitated, Spirit could as a last resort take control of the ship and do what was needed to preserve the crew and the ship. It was however incapable, through hardwired programming, of refusing a legitimate order from one of the ship's officers, thus could not lead some sort of hypothetical robotic mutiny against the human crew.

Tina found only two ship technicians at the airlock entrance to Craft Hangar Number 3, one of them at the controls of the pressurization system of the hangar and airlock complex. A quick look at the viewing screen showing the inside of Craft Airlock Number 2, adjacent to Hangar Number 3, told her that the Martian shuttle was just entering the big airlock. Once the shuttle was inside, the armored outer doors of the airlock shut close, allowing the technician to send air inside the airlock to pressurize it. Once the pressure was equalized between the airlock and the hangar, an armored door opened to let the shuttle slowly float inside the hangar. By the time that the process was completed and the shuttle was safely inside the pressurized hangar, Natalia Vasilyeva, Piotr Romanski and Winnie Zambela had joined Tina at the entrance to the hangar. While Natalia was the ship's hostess, responsible to greet and help visitors and passengers to the ship, Piotr was both the ship's purser and its commercial and financial agent. As the one responsible for finding paying customers and cargo for the ship, Piotr was a key member of the crew and had proved invaluable to Tina. As for Winnie, she was the assistant purser and was also in charge of the crew mess and other crew facilities. As such, she had a big role in keeping high the morale of the crew during long space runs. All of them wore like Tina informal Spacers' work coveralls, plus ball caps adorned with the crest of the KOSTROMA. The three women and one man walked inside the craft hangar once the technician had declared it pressurized and secure, going to the landed shuttle. The rear access ramp of the shuttle was already coming down as the group approached it. Tina hesitated, then stopped, on recognizing the second person to step out of the shuttle.

"Governor Watts? But, we were expecting a simple delegation from the Mars Food Administration and from the Commerce Board."

Charles Watts, a man of medium height and built in his sixties who sported graying black hair, smiled while admiring quickly Tina, a tall brunette of thirty with gray eyes, who could easily be described as more than pretty.

“Well, one of my responsibilities is to oversee the members of my administration and evaluate their work, so I decided to impose myself on them today. It also gave me a good excuse to meet you again, Captain Forster, or should I say Fleet Captain Forster?”

“Just Tina will do, Governor.” Replied Tina while exchanging a handshake with Watts.

“In that case, simply call me Charles, Tina.”

The other Martian delegates exchanged looks on hearing that, something not lost on Watts, who grinned to Tina.

“Don’t worry about our friendship affecting the opinions and judgment of my delegates when time will come to test the foodstuff you are offering for sale. Since I will also play the taster, I will have no interest in pushing them into buying less than good quality products. Besides, from what I have seen of you and your ship during the war against the Terran Federation, you are not the kind to swindle your customers.”

“Thank you for your vote of confidence...Charles. I believe that you already know Natalia Vasilyeva, Piotr Romanski and Winnie Zambela?”

“I sure do, Tina.” Said Watts, shaking hands with the three others before turning to present the fourteen members of his delegation, functionaries and experts from both the Mars Food Administration and the Mars Commerce Board, all of them carrying large briefcases and suitcases. After the exchange of greetings and handshakes, Tina led the group out of the hangar and into the maintenance workshop, heading for the central shaft elevator banks.

“We will now go up to the Main Cafeteria Deck, on Level 10, where a display of our food products available for sale has been set up.”

“Will we be able also to visit your various food production facilities, Captain Forster?” Asked a male delegate of the Mars Food Administration. Tina nodded her head at that, having expected that request.

“You will have access to all our facilities during your stay, mister, so that you can assess the level of hygiene of our facilities. I hope that you have more than a few hours available for this visit, though: my ship is huge by any standards.”

“We can stay overnight if need be, Tina.” Replied Charles Watts, preempting any objection from his functionaries to such an overnight stay. In truth, he had fallen in

love with this ship while traveling on it during the last war. It represented what he believed to be the ideal goal of Spacers: to live in space while keeping alive the past beauty of Earth, a now polluted, overpopulated and depleted planet. The building of decks especially made to accommodate large forests and plantations aboard the ship had particularly inflamed his imagination. He still relished the souvenirs of his days spent in one of the suites that gave a direct view to a complete Boreal forest covering 7.5 hectares. And there had been four such forests on the Bow Gravity Sail Deck. In comparison, Mars had only a handful of underground parks with trees available to its citizens, none as big as the four forests on the KOSTROMA.

Going up forty meters by elevator, the group then stepped in the central rotunda of the Main Cafeteria Deck, with Tina leading the Martian delegation into a long corridor running outward from the central axis of the ship. That corridor turned out to lead to a large dining lounge about 45 meters long and twenty meters wide and with a ten meter high ceiling. Apart from four waiting cooks and waitresses, the dining lounge was deserted at this hour. The Martian delegates admired for a moment the decoration of the room, which included potted plants, aquariums with fish and large holographic screens made to look like windows and replicating Earth natural vistas. Tina then gave the lead to Natalia Vasilyeva, who stepped forward to address the Martians.

“Ladies and gentlemen, we are now inside our business class dining lounge, which has a capacity of 240 seated customers. If you will leave your luggage in this corner, we will then go see our products display.”

Obedying the tall blonde, the delegates left their suitcases in the designated corner, but took out of their briefcases electronic tablets and plastic sample bags before following Natalia towards the service counter, where the cooks and waitresses were now busy taking out of refrigerators or shelves an assortment of plastic containers and bottles, lining them up on the counter, along with plates, utensils and glasses. The sheer variety of the products seemed to impress at once the Martian delegates.

“My god!” Exclaimed an expert from the Mars Food Administration. “Are all these items really produced on this ship?”

“Absolutely, mister!” Answered Natalia. “We have produced during the course of last year 82 different main types of vegetables, fruits and spices, twenty different types of fish and shellfish, meat from five different main animal species and a total of 2.2 million liters of fresh milk and other dairy products. We had ample food for our crew and

passengers and, even after keeping a comfortable reserve of processed foodstuff, were left with sizeable surplus available for sale. As an example of our surplus, we had 280 metric tons of wheat, 145 metric tons of corn grain and 375 metric tons of rice available for sale after one year of full production. Some of those surplus have been sold already in the Jovian System and the Asteroid Belt, but there is still plenty available if the Mars Food Administration will certify their quality level and allow their sale to Mars customers. We are also growing yet more fresh products as I speak. I propose to let you first take for analysis samples of each of our products, then we will make you taste a few of our more refined foodstuff.”

“That sounds like a good program, Miss Vasilyeva.” Said Charles Watts before looking at a bearded man in his fifties. “Mister Bernardi, you may have your food inspectors start collecting samples.”

“Yes, Mister Governor!” Replied Bernardi before giving a few orders to his four food inspectors, who then started taking samples, putting them in their labeled plastic bags. As they were working, the delegates from the Mars Commerce Board and Charles Watts started reviewing with interest the long line of labeled products on the counter. One delegate soon got quite excited on examining the collection of spices available for sale, which were tagged with their proposed sale prices.

“You produce curry spice and chili peppers on this ship? And at such low prices?”

“We in fact produce seventeen different types of spices on the KOSTROMA, along with cocoa, tea, coffee, sugar and vegetable oils, mister. In view of the outrageous prices Earth suppliers are asking for those kind of products, we decided to boost their production, in order to provide spices, tea, coffee, chocolate and vegetable oils at reasonable prices to other Spacers.”

“Reasonable prices? But this bottle of powdered curry, if of truly good quality, is listed at less than a fifth of what we in Mars have to pay for the same quantity of curry from Earth, which was up to now our sole supplier of curry.”

Natalia smiled at the remark from the Martian delegate.

“Having eaten many times the various curry dishes served by our cooks, I can assure you that our variety of curry spices is as good or better than anything the Earth sells, mister. If you want to taste a bit of our various curry grades, you are welcome to it. Jorge, can you take out a few small spoons, so that our guests can taste our spices?”

"Right away, Natalia." Replied one of the cooks, who then hurried to put on the counter near the spices an assortment of small spoons, small plates and napkins, plus glasses full of water. The delegate from the Commerce Board looked with confusion at the glasses of water.

"Uh, why the water, mister?"

Jorge Batista smiled to him while answering with good humor.

"Well, wait until you taste our hot variety of curry spice, then you will get your answer, mister."

"Excellent!" Said Charles Watts. "I love spicy food! Let's start tasting, ladies and gentlemen."

It didn't take long before the assembled Martians declared that they liked what they tasted, with the man from the Commerce Board eyeing with glee the bottle of hot curry on display.

"Damn! I must get this for our consumers and restaurant owners. And how much of these spices do you have available for sale, Miss Vasilyeva?"

Natalia consulted her electronic tablet before answering with a proud smile.

"Even after selling a good portion of our products in the Jovian System, we still have 1,200 kilos of curry powder available for sale, including 450 kilos of the hot variant. We are of course talking about net weights. We also have at least a few hundred kilos left of each of our other spices."

The Martians jaws collectively fell to the floor at that announcement, with the Commerce Board delegate looking at Natalia with bulging eyes.

"But, that would be enough for the needs of most of Ares City for a year. Our restaurant owners will kill to get those spices at your listed prices."

"We always could rise our prices if you find them too low, mister." Replied Tina Forster, grinning with amusement. That prompted a quick response from Charles Watts while he eyed crossly the Commerce Board man.

"No need for that, Tina. Your prices are quite satisfactory. You may continue your presentation, Miss Vasilyeva."

"Thank you, Mister Governor. Next, we have our fresh fruits and their various derivative products, like juices, jams and bottled baby food."

The next big surprise for the Martian delegates was when they finally arrived at the collection of bottled alcoholic beverages on display. A female delegate opened her eyes wide with delight after sipping a bit of strawberry liquor, one of the fourteen types of alcohol displayed.

"Hmm, I love this! We do produce some fresh strawberries on Mars, but we have nothing like this liquor, or your cream of green mint."

"You can thank Miss Petra Manzini, the manager of our APEROSSIMO lounge-bar, for those liquors, miss." Replied Natalia. "She was the one who proposed to produce liquors out of our surplus fruits and mint. She also concocted their recipes and supervised their production, along with those of our wines and beers."

"Heck, I don't care what Mister Bernardi or his experts will say about this. I want these liquors for our consumers! Do you have much left of that strawberry liquor and of that green cream of mint?"

"Well, most of our strawberry production is sold as either fresh fruits, jam or juice, but we still have over 16,000 bottles of strawberry liquor and 1,840 bottles of green cream of mint left in our stocks available for sale after onboard consumption. We only recently started production of those liquors and you would be our first customers for them."

The female delegate only needed one look at her superior and at Charles Watts before nodding to Natalia.

"Then, we will be most happy to acquire your available stock of all those liquors, miss."

Piotr Romanski, who was most satisfied up to date with how the presentation was going, used that opportunity to start distributing data chips to the delegates.

"You will find on the data chip I am giving to each of you a list of what we produce, what is available for sale and their prices. It will help us in discussing sales arrangements later on."

The delegates quickly downloaded that data on their tablets and started reviewing it. The more they saw, the more they became impressed, with the head of the Commerce Board delegation looking with admiration at Tina Forster.

"You decidedly have everything on this ship to provide for a small town, Captain Forster."

Tina nodded her head soberly in response, becoming most serious.

“We indeed have, Mister Gardner. This ship is actually a lot more to me than just a giant cargo ship, or a battleship: it is to me primarily a space community, a human village in space able to sustain itself and to prosper. It is home for me and my crew and I hope to see one day all Spacers able to live like we do, free to roam the planets and moons of the Solar System.”

16:49 (India Time)

Friday, June 15, 2317

Small apartment, city of Sehore

West of Bhopal, State of Madhya Pradesh

India, Southern Federation

“You see, Priya: there are many recipes for curry spice, but few of them are really worthy of the name. Everything is in having the right mix and proportions of ingredients. My curry sells well because I make my own curry according to a recipe long held by my family. With your studies in agronomy and hydroponics, you should know already how even a small modification to a spice mix can dramatically alter the final taste of that spice.”

“I do, Mother.” Answered patiently the nineteen year-old teenage girl watching her mother prepare one of the home-cooked recipes that she then sold daily at the town market in order to supplement the meager family budget. Priya Mistry counted herself lucky to have the parents she had: despite their low revenues, they had sacrificed much already to ensure that she could get a good education and thus have a chance at having a better life. They had also treated her on the same footing as her two brothers, contrary to still too many families in India who treated girls and women as second class persons. The last two years, with the chaos caused by the war between the forces of Marshal Khan and President Zembelo on one side and the Northern Alliance and their Spacers allies on the other side, had been hard enough without having to deal with sexual discrimination. Now that the Northern Alliance had won that war thanks to the Spacers, what remained of the Khan and Zembelo regime had formed the Southern Federation, of which India was a part of. Her thoughts were then interrupted by the noise of the door of their cramped apartment being unlocked and opened. Turning her head, like her mother, Priya smiled on seeing that it was her father coming back home from work. Her

smile then faded on seeing the despondent expression on her father's face. Her mother also saw that and she hurried to her husband, forgetting about her curry recipe.

"Rajeev, you are back early from work. Is something wrong?"

Rajeev, a thin man in his mid forties, nodded his head slowly before sitting down in the sofa of their small lounge, then put his head into his hands, obviously distraught.

"I...I lost my job at the food warehouse. In fact, all the ones working at the warehouse lost their jobs: the company went bankrupt and the plant manager is said to have fled with the company funds."

Priya's heart skipped a beat then as her father started crying quietly, with his wife trying to console him as best she could. Jobs were hard to come by in these difficult times and to get one often necessitated paying substantial bribes to local officials. Her family was too poor to afford such bribes, which meant that her father would probably be jobless for quite a while, if not for months and years. Unfortunately, the citizens of the Southern Federation didn't enjoy such niceties as social welfare and unemployment insurance, contrary to the much wealthier citizens of the Northern Alliance. Just finding money to pay for their rent and buy a minimum of food would be hard enough. Priya slowly sat down on a chair as she realized that she would not be able to finish her studies now: the money set aside by her father to pay for her next college semester will now be sorely needed by her family to simply survive the next few weeks and months. Seeing all her dreams evaporate in an instant, Priya got up from her chair and went to her tiny bedroom, dazed and in shock, to sit on her bed. She then started to cry quietly. She could not fault her father, who had done everything to support his family as best he could. Neither could she either think only about her now doomed studies. Her whole family was now in real danger of soon ending in the street, homeless and without food. At best, they would have to join the ranks of the other unfortunate families who depended on charities and food banks, but those were already overtaxed, thanks to the chronic mismanagement and corruption of the Southern Federation's administration. At worst, the family would become street beggars in a region already stricken hard by poverty.

As she cried out her despair and bitterness, Priya understood that she would have to help her family by finding work herself. Thankfully, she already had completed two years in agronomy and hydroponics techniques, a formation that should make her interesting to at least a few employers. If she didn't find anything locally, then she would

not hesitate to look beyond India. Thinking of it, she decided to start looking both locally and internationally at once for a job: the prospects in India itself had been bad for months now and limiting her search could make her waste precious time. Taking out of a locked drawer her electronic tablet, Priya started typing an employment résumé, intent on sending it around afterwards on the WorldNet. Later, she was going to tell her parents about her intentions. They were certainly going to understand and approve. Even if they didn't, she was already technically an adult and could take decisions by herself.

10:19 (India Time)

Saturday, June 16, 2317

The Mistrys' apartment, Sehore

Madhya Pradesh, India

Priya opened her tablet to check on her job search, not expecting much: there had not been a single job offer online yesterday in her specialty field in the entire State of Madhya Pradesh, when she had started circulating her employment request. Her last check earlier this morning had shown no results yet. However, that had not surprised her: the contrary would have, as jobs were rare and postulants were many. She thus nearly jumped off her bed when she saw that a text message had been left in her electronic mail box, clearly connected to her job search. Her heart beating faster now, she read quickly the message and was not a little surprised to see that it had been sent by a space shipping agency office based on an orbital station around Earth. The implications of that made her pause for a moment. Technically, the Southern Federation was hostile to anything connected with the Spacers. To go work for Spacers could possibly attract unhealthy government attention on her family. She however knew that this could well be the best hope for her to find a decent paying job that would help support her family, thus she read carefully the message. Her heart accelerated further when she saw that it said that her application had been deemed promising and that she was being offered an online job interview for a position as an apprentice hydroponics technician aboard a spaceship. Priya quickly sent an affirmative response to the online interview offer before thinking fully about it, so anxious she was to find a job. She was further surprised when a video call came in barely ten minutes later, as she was about to go help her mother in the kitchen. Quickly sitting back on her bed, Priya opened the

channel and found herself looking at what appeared to be a Chinese woman in her forties. That reassured her a bit, as China was considered a neutral state by the Southern Federation and travel to there was allowed. The woman, who could see Priya via the camera integrated to the teenager's tablet, smiled to her.

"Miss Priya Mistry? My name is Wei Zang and I called you to give you an online job interview. Your résumé looked promising to us and you seemed qualified for one of the positions we are trying to fill on our ship. First off, tell me why you are postulating for a job aboard our ship."

"Uh, to be frank, I was ready to take any job offer I could get, Miss Wei. The economic situation in India is very bleak and I wanted a job so that I could help sustain my family. I understand that jobs in space rate some sort of premium, am I right?"

"That is correct, Miss Mistry. I understand from your résumé that you still had one year of studies left before completing your degree in agronomy and hydroponics techniques. Could you tell me why you decided not to complete your studies?"

Priya couldn't hide completely her bitterness then and lowered her head a bit before answering.

"My family can't afford to pay for my studies anymore and I myself don't have a source of revenue that would let me continue my studies, miss. I am hoping to complete my studies at a later date, after I could accumulate some savings."

"I understand, Miss Mistry." Replied Wei Zang. "Do you mind if I ask you a few questions about your family?"

Surprised and confused by that, Priya hesitated before answering.

"Uh, what would you like to know, Miss Wei?"

The Chinese woman then gave her a sober look and got closer to the camera of her viewer.

"Miss Mistry, this may surprise you but my captain has specifically instructed me to give employment priority to those most in need, and you certainly seem to qualify in that aspect. From what you told me, I can deduce that the main breadwinner of your family no longer has a job, right?"

"Correct, miss. My father recently lost his job as a forklift operator at a foodstuff warehouse, when the warehouse closed. Without social welfare or unemployment insurance, the prospects for our family are now quite bleak and I wish to get a job so that I could help support my family."

“Who else is there in your family, and what job qualifications if any would they have for the work market, miss?”

Growing more confused by the minute, Priya nonetheless answered the Chinese woman.

“My mother sells home-made recipes at the local market. As for my two brothers and one sister, they are still in their early teens and are in school.”

“Are they all in reasonably good health, miss?”

“Yes! Why do you ask about that?”

Wei Zang looked at Priya with an encouraging smile.

“Because, if your family is interested, we would be ready to welcome your whole family on our ship, on top of you. We do have positions opened that could suit your father and your mother as well.”

That left Priya thunderstruck.

“My family, go on a spaceship? But, what about school for my younger siblings?”

“We do have elementary and secondary schools aboard our ship, miss. We even have facilities for post-secondary studies, so you will eventually be able to complete your studies on our ship.”

“Uh, how big is your ship actually, Miss Wei?”

“Big enough to be a self-sufficient space community, miss. If you and your family are interested by our offer, I am ready to transfer some travel funds to your bank account, so that you could travel to Shanghai, where we could conduct a face-to-face final interview with your family.”

“I...I would certainly be interested personally by your offer, miss. Let me just go get my parents, so that you could talk directly with them.”

Priya nearly ran out of her bedroom, her heart beating hard, as she rushed to the lounge, where her parents and her siblings were.

15:50 (Universal Time)

Tuesday, June 19, 2317

Light shuttle on approach to the A.M.S. KOSTROMA

Earth low orbit

“WOW! LOOK AT HOW BIG THIS SHIP IS!” Exclaimed thirteen year old Salman, as the shuttle transporting the Mistry family was approaching the KOSTROMA, docked in low Earth orbit to an equally huge space station. That made the copilot of their shuttle, a young man barely out of his teens, smile and turn his head back, towards the cabin.

“The KOSTROMA is the sixth largest spaceship in the Solar System. It has an empty mass of 2.5 million metric tons and a maximum loaded mass of 24 million metric tons. I think that you will like living on it.”

Ramya Mistry pressed the hand of her husband Rajeev as she watched the massive hull of the KOSTROMA grow in the viewing ports of the shuttle.

“Such a radical change to our lives. I hope that we took the right decision, Rajeev.”

“We had to, for the sake of our children’s future, Ramya. We had no future left in Sehore. In truth, we never had much of a future there, if we are honest about it.”

“But you will have one on the KOSTROMA, I assure you.” Said from her nearby seat Wei Zang. “Our captain, Tina Forster, who also owns the ship, cares very much for her crew. Since our ship roams the whole Solar System in the process of conducting space commerce, you will be able to admire all the wonders of space in the years to come.”

“But, I thought that living in space was dangerous.” Said Rajeev, making Wei nod her head.

“It is, if you don’t respect basic rules and are careless, but living anywhere, including on Earth, can be dangerous as well. All of you will get indoctrination courses on what to do in space and on basic safety measures, but don’t worry about this right now. Let’s first make you comfortable aboard the KOSTROMA. The Captain will also want to meet and greet you aboard.”

Rajeev nodded, then fell silent as he continued to look at the growing mass of the ship. He had been hired as a forklift operator, while Ramya was going to work part time in the kitchens of the ship. The salaries, benefits and work conditions offered to them by Wei Zang had quickly convinced Rajeev to go along with Priya’s example. They would now be earning in total over twelve times what he had been earning at the warehouse in Sehore, plus would be able to keep the younger children in school. He also had been told by Wei Zang that, as employees and crewmembers of the ship, they would

eventually be able to retire and stay on the ship, and this as part of the benefits package offered to them.

About nine minutes later, the shuttle entered one of the four craft airlocks of the cargo ship, then cycled through the airlock and hangar. Two women and one man were waiting for them when the rear access ramp of the shuttle lowered open, letting the Mistry family out, the anti-gravity sled carrying their luggage in tow. One of the women was a tall brunette of about thirty, while the other woman was an even taller blonde. The man, on his part, was a tough-looking individual in his forties who wore two pistols at his belt. Rajeev and Ramya instinctively tensed up on seeing the armed man, something the brunette noticed. She made a wide smile and stepped forward to greet the Mistrys with a handshake.

“Welcome aboard the KOSTROMA, people. I am Tina Forster, captain and owner of this ship. With me are Natalia Vasilyeva, the ship’s hostess, and Bill Morrison, the head of ship’s security. Mister Morrison is here simply to inform you about the basic safety rules followed on this ship while in space.”

That last sentence did a lot to relax Rajeev, who happily shook hands with Tina Forster.

“Thank you for having hired us, Captain Forster. I am Rajeev Mistry and here are my wife, Ramya, my sons Mahesh and Salman and my daughters Priya and Pavithra. It was the initiative of Priya that put us in contact with your ship.”

“Indeed!” Said Tina, widening her smile while shaking hands with Priya. “You chose right, miss: my crew and their families are most precious to me and I spare nothing for them. I am unfortunately a very busy woman, so I will now have to leave you in the good hands of Natalia and Bill. Again, welcome aboard the KOSTROMA.”

She then turned around and left, with Natalia Vasilyeva stepping forward to speak to the Mistrys.

“First off, before we leave this hangar, I must ask you if you have any plants, meat, fish or animals with you in your luggage. We have to be very careful on spaceships about potential pests or parasites being imported aboard. Also, if you have any rugs or similar items, they will have to be sent right away to be cleaned and disinfected.”

“We have none of those items with us, miss.” Answered Rajeev. “The only things we brought with us are clothes, a tea service and a few personal papers and family souvenirs.”

“Excellent! We will then be able to go right away to your assigned quarters. Before we go, however, I will give to each of you a small printed guide to our ship: it is quite easy to get lost in it at first.”

The Mistrys took the small pamphlets Natalia took out of a small carrying pouch slung across one shoulder and briefly looked through it, finding a general, simplified map of the ship in it, as well as a list of the most important locations and services found aboard. Natalya then continued speaking as she started to guide the family, followed by Bill Morrison, towards the central shaft elevators.

“You will be lodged in the apartments ring complex of the Bow Gravity Sail. You will actually occupy two adjacent apartments: a single bedroom apartment for Priya, who is now an adult employee, and a four-bedroom apartment for the rest of you. Those apartments will be on Level 19, at the same height than the Crew Facilities Deck. While your apartments have small kitchens, I will encourage you to go eat, at least at first, at the crew cafeteria, situated in the center of the Crew Facilities Deck. After dropping your luggage in your apartments, we will then go register you officially as ship’s occupants at our ship’s administrative offices, on the Human Services Deck, on Level 16.”

Getting into one of the elevator cabins of the central rotunda, along with their luggage sled, the group made a quick trip up, leaving the cabin on Level 19 and walking outwards to a large armored door on the outer wall of the core periphery ring. The door opened on Natalia pushing a button, revealing a long pedestrian bridge lined on both sides with wide viewing windows. The Mistrys collectively sucked in air once they started walking along the enclosed bridge: they now were looking down on both sides at what seemed to be large forests. Ramya, both surprised and delighted, looked with wide eyes at the hundreds of trees visible from the pedestrian bridge.

“How could this be possible on a spaceship? Even in our hometown of Sehere, in India, there were hardly any trees left: they were nearly all cut off for their wood decades ago.”

“This was the idea of our captain, when time came to send our ship into refit. She asked and paid for additional decks that now support self-contained forests, as well as hundreds of hectares of hydroponic and natural plantations. That refit was completed about a year and a half ago, just before the war with the Terran Federation and the Zembelo dictatorship. Most of our new plantations have now reached maturity and are productive, thus our actual needs for more hydroponics technicians and other laborers.”

“But, this must have cost her a fortune.”

“It did, but she believed that the improvement to crew living conditions this would bring was well worth the cost. Everybody aboard now agrees with her on that. Wait till you see the view from your apartment.”

Now positively impatient to see their new quarters, the Mistrys walked for more than 200 meters along the pedestrian bridge before passing another armored door and walking inside a sort of tunnel closed at its extremity. That tunnel turned out to be a safety airlock when the armored wall at the end slid open and they set foot on a wide circular promenade that extended beyond view on both sides. The thick outer wall of the promenade sported large Armorglass windows giving them a view of space and of the orbital station to which the ship was docked, while fruit trees were planted at regular intervals along the median of the promenade. Along the inner wall, three levels of what looked like apartments were stacked on top of one another, linked by walkways.

“The Apartments Promenade of the Bow Gravity Sail.” Announced Natalia. Below us is a similar circular promenade, that one lined on one side with giant aquariums full of decorative fish. There are as well small underwater viewing lounges at intervals that allow you to go relax while watching the fish swim around you. I recommend that you visit them: it is truly a very relaxing experience.”

Leading the family along the promenade, Natalia turned after about twenty meters into a short side staircase that brought them in a narrow section containing an elevator shaft, a large spiral staircase going both up and down that level and a small open terrace with tables and chairs that had a direct view to one of the forests and was accessed via a safety airlock. Natalia pointed first the staircase.

“This staircase leads up to the second and third level of apartments, as well as down to one of the underwater observation lounges. Your two apartments are on the second level. We will take the elevator, since we have your luggage sled.”

Squeezing all inside the elevator cabin, they went up quickly to the second level, then walked out and followed the three meter-wide walkway connecting the apartments of the second level, turning and climbing nearly immediately into the entrance porch of two adjacent apartments. Natalia showed the Mistrys what appeared to be sliding doors which framed the porch’s entrance and that were presently recessed in open position.

“These are airtight safety doors. If there ever happens an accident and this sector starts to decompress, those doors will then automatically close up, protecting your

apartment from decompression and giving you time to don your emergency space suits. Don't worry about those suits: you will be signing for one each after this. Your rear balcony, which has a direct view to the forested area, is also protected by an airlock. Priya, your apartment is this one to our right, Apartment 20282. Your family will occupy Apartment 20283, to our left. I will now make you register as the lawful occupants via the ship's main computer."

Going to a wall panel, Natalia pressed a button and spoke into a small microphone.

"Spirit, this is Natalia Vasilyeva, asking you to register new occupants for Apartments 20282 and 20283."

"I recognize you, Natalia." Responded a soft female voice. "The occupant of Apartment 20282 may now register."

"Thank you! Priya, come here and face this camera lens while putting both of your hands flat on this gray panel, then simply tell your name, nothing else."

Priya came forward and pressed both hands as requested before speaking.

"My name is Priya Mistry."

"Welcome to the A.M.S. KOSTROMA, Priya Mistry. You are now registered as the occupant of Apartment 20282."

"Spirit, Priya Mistry will also have visiting rights to Apartment 20283, which will be occupied by her parents and siblings. The Mistrys will now register for Apartment 20283."

Natalia made the family members repeat the procedure followed by Priya, then made them enter the bigger apartment with their luggage sled. Making them leave the sled in one corner of the wide vestibule, Natalia then led the family in a quick tour of the apartment.

"This apartment has three single bedrooms and one large master bedroom, a family lounge and dining room with kitchenette, a study, a laundry room, a rear open air balcony, plus two full bathrooms and a washroom. Only you and select ship's officers and security personnel can now gain freely access to your two apartments. Other visitors will have to ring and ask your permission to gain access. As you can see, the apartments are already fully furnished and provided with sets of spare bed linen, cutlery and kitchenware. If you really don't like the style or color of the present furniture, you can always ask for alternate sets from our reserve stores, but please don't be too picky: the furniture selection we have is limited."

Rajeev, like Ramya, looked around at the comfortable, elegant pieces of furniture lining the family lounge, before nodding his head with satisfaction.

“This is more than satisfactory, Miss Vasilyeva.”

“Excellent! I will now show her apartment to your daughter Priya while you make yourself at home. Then I will guide you to our ship’s administrative office.”

Now alone with their three younger children, the Indian couple went to admire for a moment the view they had of the forested area from their rear balcony. Feeling like being born again, Ramya then hugged her husband, tears of joy rolling on her cheeks.

“I can’t believe our luck, Rajeev. Our children will now have a future worth looking forward to.”

14:06 (Eastern Standard Time)

Thursday, June 21, 2317

Bronx District, New York City

North American Union, Northern Alliance

The old woman answered her door ring after a good minute, just as Lester Barnaby was about to give up and leave. The gray-haired woman, who had to be at least in her seventies and who was quite frail, looked with suspicion at the tall black man in his early thirties standing on her porch.

“Yes?”

“Misses Turner? My name is Lester Barnaby and I came to see the articles you offered online. I did call in advance yesterday.”

“Ah yes!” Said the old woman, relaxing and opening her door wide. “Come in, please!”

“Thank you!”

Lester, once inside, looked briefly around the vestibule area of the old brick townhouse.

“This building dates from the past century, right?”

“It was actually built around 2230. It was however built over the foundations and basement of a much older building, which are now part of my house’s basement. What I advertised online for sale was found in the old parts of the basement. If you will please follow me.”

The woman then guided Lester to an old staircase leading down, going slowly down wooden steps before setting foot in a concrete basement. Navigating through foundation pillars, piles of old furniture and unmarked cardboard boxes, she led Lester to what looked like an armored steel door. Lester looked with surprise and incomprehension at the heavy door.

“What the hell is this doing here, in a residential area? It looks like a bank vault.”

“I asked myself the same question when I found it after buying this house last year. After consulting the municipal records, I was told that this is an old bomb shelter built around the 1950s, when the people of the time were paranoid about the risks of a nuclear war. It was unearthed when workers dug up the foundations for this townhouse. It cost me a good sum to have someone force open this rusty door, but all I found inside was some old junk. There were however a few old musical instruments inside that seemed to be worth selling, so I placed my add online. Someone came late yesterday and found an old guitar and a saxophone that were to his taste. I hope that you will find something that will interest you in there. Are you a musician, Mister Barnaby?”

“Actually, I am a DJ in a dance club but I do play a few musical instruments.” Answered Lester while mentally swearing at having missed his opportunity at the said old guitar and saxophone. “Well, let’s see what we can find in there.”

Watched anxiously by the old woman, who was probably praying that he found something that she could then sell to him, Lester turned the wheel of the locking mechanism, which had visibly been oiled recently, then pulled open with some effort the heavy door. The inside proved to be dark, prompting him into looking back at the old woman.

“Uh, do you have a flashlight by chance, madam?”

“Of course! Silly me!”

She went to a nearby shelving unit and grabbed a large emergency portable light, then handed it to Lester.

“This shelter had a lighting system, but it used old incandescent bulb lights and those bulbs are no longer produced, or so I was told.”

“I understand, madam. Thanks!”

Switching on the portable light, Lester then saw that the bomb shelter was about twelve meters deep and three meters wide and was clustered with old shelving units, boxes and crates, plus a few pieces of crumbling furniture. Entering cautiously the shelter, he

found that the air inside was actually quite dry, while little dust was in evidence. That was encouraging, as it meant that whatever was inside here had little chance to rot from humidity during all those decades and centuries. It was however quite spooky to go around those old relics that apparently dated back from so long ago. Like the old woman had said, most of the stuff he saw was old junk or tins of food that he wouldn't even dare open. One old framed picture he found on a shelf, while mostly faded away, brought some emotions to him: it showed a young couple, possibly at their marriage ceremony, smiling to the camera. From their style of costumes, Lester would say that the picture dated from at least 200 years ago. Coming out of the shelter, Lester showed the picture to the old woman.

"I wonder if they died from old age. They looked like a nice young couple. I may just buy it. Keep it aside while I finish looking inside."

The old woman nearly started to cry as she stared at the old picture.

"My god! This reminds me so much of my own marriage with my dear Frank. I wonder if they had children."

Lester didn't reply to that, reentering the old bomb shelter and continuing his search. He finally spotted something of real interest as he neared the end of the shelter. Opening the top of what looked like a large wooden chest, he found inside a number of carefully sealed cardboard boxes. Most of them were unmarked, but one particular box made blood rush at once to his head. Hoping fervently that it was what he thought it was, Lester took out that particular box, which was rectangular and flat and bore the image of an old-style phonograph. Opening the box, he nearly screamed in triumph then: inside, apparently still in pristine condition and wrapped in its original factory protective packing foam and sealed plastic bags, was a high-quality phonograph disk player dating back from the late 20th Century or early 21st Century. He then saw that, under where the box had been, sat a pair of acoustic speakers and a sound amplifier unit that probably came with the phonograph, wrapped in plastic bubble sheets. Having already a true treasure in his hands, Lester put the phonograph box carefully aside, then opened one of the unmarked boxes that filled the rest of the chest. His eyes bulged when he found inside that lone box over thirty vinyl disks in their original cardboard covers, wrapped carefully with bubble sheeting to protect them against shock. His hands nearly shaking from the emotion, he very carefully and cautiously took out one of the disks, wanting to avoid any damage to it, and examined its cover. The picture on it was somewhat faded but it was still easily readable.

“The Beatles’ Greatest Hits...”

Very cautiously sliding the vinyl disk out of its pocket, he found it apparently intact, with no warps, cracks or scratches visible. Slowly sliding back the disk in its pocket and putting it back in the box, he quickly opened the other unmarked boxes, finding all of them full of carefully wrapped vinyl musical records. As he was about to go speak with the old woman, Lester saw a small letter that he had not noticed at first inside the chest. Opening it and taking out cautiously an old sheet of paper, he unfolded it and read it with growing emotion.

March 12, 2014

To the one who will eventually find this chest.

Music is the thing I loved most in the World. The thought of such musical treasures being eventually lost was too much for me as a professional DJ and musician, so I did my best to preserve it from the ravages of time. You will find records of songs dating from 1952 to 2014, made on DJ quality disks. May time be kind to my collection of records, so that others in the future could enjoy all that music.

Michael Westley

DJ at the Studio 54 Disco Club in New York from 1979 to 1986.

Lester had to wipe a tear from the corner of one eye as he reread slowly the short letter. This find was turning out to be absolutely priceless. Thankfully, he had a comfortably padded bank account at his disposal. Putting both the letter and the phonograph box back in the chest, he closed it and carefully lifted it, carrying it with some effort out of the bomb shelter to gently put it down near the old woman.

“This chest interests me, madam. How much for it and the old framed picture?”

“What is in that chest, Mister Barnaby?”

“Antique musical records. They are most probably unreadable now but just their old covers will have some historical value. So, how much?”

“Uh, I don’t know, frankly. Are they really valuable?”

Lester could have easily fleeced the old woman then, but he was not that kind of guy. Besides, finding such a treasure deserved a just payback and he had ample money to spare. He thus smiled gently to her and nodded.

“Very valuable, madam. I am ready to offer you 5,000 credits for the lot.”

The old woman opened wide her eyes, visibly not having expected such a deal.

“FIVE THOUSAND CREDITS?! Uh, you have a deal, mister. At that price, I will throw in the framed picture for free.”

“Thank you very much, madam. You will make many music lovers happy with this deal.”

Taking out his wallet, he counted out 5,000 credits in large denomination bills and handed it to the happy woman.

“Again, thank you very much, madam, and have a good day.”

Loading cautiously the precious chest and the framed picture inside his rental air car, Lester made a last wave of the hand to the woman watching him through her windows, then took off on automatic pilot after punching in his destination in the New York automated air traffic control network. He was back in his hotel room in Manhattan twenty minutes later, where he placed a call to the Newark Astroport to book passage to return to orbit the next day. He still had a good week of shore leave left but there was no way that he would wait that long before starting to return to life all that music, and for that he needed his sound studio on the KOSTROMA.

17:04 (Universal Time)

Saturday, June 30, 2317

Port boarding station, Main Promenade Deck

A.M.S. KOSTROMA

Docked to the Las Americas Orbital Spaceport

“Here comes quite a lot of money for us. Be extra nice to the man, Natalia.” Said Tina Forster as she watched a man in his early forties approach while towing an anti-gravity sled full of suitcases.

“After booking a first class suite for an open ended period of one year minimum, he sure isn’t poor.” Replied the ship’s hostess. “At least, he is pulling his luggage himself.”

The man was wearing an expensive suit and a gold wrist videophone and he did look the high-class dandy part, but he surprised both Tina and Natalia with his unassuming tone of voice when he presented himself at the boarding station, a boarding pass in one hand.

“Good afternoon, ladies. My name is James McDowell and I booked passage on an open-ended basis for at least a year.”

“We were expecting you, Mister McDowell.” Replied Natalia, giving him her best smile while taking his boarding pass to scan it in her station’s computer. “You will be in Suite 19046, on Level 19 of our Bow Gravity Sail. Here is a simplified guide of this ship, which also explains the basic safety rules to follow aboard the KOSTROMA. Miss Joan Ferguson, to my right, will be pleased to escort and guide you to your suite.”

McDowell had a look at the very appetizing brunette besides Natalia, smiling with appreciation.

“That would be kind indeed, miss.”

That was when Tina dropped in on the conversation.

“Mister McDowell, I am Tina Forster, captain and owner of this ship. May I point out that this ship is soon due to depart for a long duration deep space trip to the dwarf planet Eris. Once we leave for Eris after our next two stops, you will be stuck with us for the duration of our trip. Do you still wish to keep your open-ended reservation?”

“Certainly, Captain!” Replied the man, grinning from ear to ear. “I have booked long-term passage on your fantastic ship in order to have peace and quiet for the next few months, so that I can write my next masterpiece without being disturbed constantly by calls from my editor or being hounded by fans. What better than deep space for that?”

Tina nodded at that: James McDowell was probably the most popular fiction novelist in the whole Solar System and rarely wrote anything that didn’t turn into huge bestsellers.

“Then I wish you a good trip and tons of inspirations, Mister McDowell.”

“Thank you, Captain.”

The writer then left for his suite, guided by Joan Ferguson, who normally worked as an exotic dancer at the JUPITER Sex Club but also frequently helped Natalia guide newly arrived passengers during boarding time, like the other dancers of the sex club also did. It was an unusual but mutually satisfying arrangement, the dancers of the sex club being familiar with the ship’s layout and also being accustomed to be pleasant to complete

strangers. In exchange, they and their Madame got cut rates on their rents aboard the ship.

The next passengers to show up at the boarding station were a far cry from the elegant James McDowell. Composed mostly of young women and counting over thirty persons, that group wore a collection of rather provocative or suggestive clothes, complemented by often flashy makeup and cheap jewels. Their sight made Tina smirk to Natalia and speak to her in a low voice.

“I bet that they are headed for our next stop.”

“No kidding, Tina! Can we say ‘entertainment specialists’ for the lot of them?”

Tina nodded to that. ‘Entertainment specialist’ was the more polite term to describe members of the oldest profession, but it actually was quite accurate as a description for prostitutes, male or female, straight or gay. Tina had nothing against prostitutes and had no qualms in providing them passage on her ship but, if not kept under control during their trip, they could create a few incidents among his crew and other passengers. She thus stayed close to Natalia as the ship’s hostess started processing the group, all of which had economy class one-way tickets for the ZERO-G NIRVANA space brothel, in the Main Asteroid Belt. Tina spoke up once Natalia was finished registering the newcomers.

“If I may, ladies and gentlemen, I would like to discreetly speak to you as a group.”

“You want to read us the riot act, I suppose?” Countered a young woman with an attitude, nearly a teenager still, getting in return a calm look from Tina.

“I simply wish to make a deal with all of you that you may find beneficial, miss. However, if you prefer getting the riot act instead, that can be arranged.”

One of the men of the group, a hulking Adonis with blond hair and blue eyes, hurried to step forward and smile apologetically to Tina.

“Please excuse my friend Gina, miss: she recently had some bad experience with law officials, through no fault of her own, and is still a bit feisty.”

“I don’t mind feisty people, as long as they don’t get out of control, mister. Let me present myself: Tina Forster, captain and owner of the A.M.S. KOSTROMA.”

The men and women of the group stiffened at once on hearing that, with the young Gina instantly losing a lot of her verve. The tall Adonis however recovered quickly from his surprise and presented his right hand while smiling to Tina.

"It is an honor to meet in person the Victor of Mars, Captain Forster. I am Karl Dahlgren."

"Nice to meet you, Mister Dahlgren." Replied Tina, who couldn't help admire the nearly perfect physique of the impressive Karl as she shook his hand. "What I wanted to tell your group is that we have a sex club here, on this deck, which is the Main Promenade Deck, along with many other commercial concessions. Many of the dancers working there have not yet returned from shore leave and the patron of the JUPITER Club, Madame Lee, may be interested in employing you for the next two nights. That would help you recoup at least part of the cost of your trip to the ZERO-G NIRVANA."

"Hum, that is indeed an interesting suggestion, Captain. We will definitely explore it after we are set up in our cabins. Thank you for the counsel, Captain."

"You're welcome, mister."

The young Gina, definitely not the sharpest mind around the block, tried to make up for her first impression by trying humor, speaking in a conspiratorial tone to Tina.

"Maybe you would want to try Karl during our trip, Captain. I personally recommend him highly."

As Karl, alarmed at Gina's gaffe, was about to excuse her, Tina replied with a grin.

"Maybe I will, miss. Thanks for the tip."

As Natalia gave her an incredulous look, Tina faked indignation at seeing her expression.

"What? Can't a girl have fun from time to time?"

"That's the spirit, Captain." Said Karl Dahlgren as the rest of the group broke out in laughter.

CHAPTER 2 – SPACE BROTHEL

10:06 (Universal Time)

Thursday, July 12, 2317

Dock 10, ZERO-G NIRVANA space brothel

Asteroid owned by the Sverdllovsk Group

Main Asteroid Belt



Dana Durning, the chief navigator of the KOSTROMA, looked with some bewilderment and much indignation at the apparently mad traffic pattern around the 23 kilometer-wide asteroid to which their ship had just docked. Ships and craft of all sizes seemingly kept coming and going at an infernal rate, with some pilots being lax about safety rules concerning docking speeds and distances.

“My god! I heard that this place was wild, but this is like organized chaos. That last shuttlecraft simply ignored our safety zone and skimmed by our hull.”

Tina, herself not pleased at all by this, nodded and looked at Minh Wa Hien, who was presently on duty as a bridge communications specialist.

“Hien, contact that shuttlecraft that just skimmed us and remind him about the size of our safety zone.”

“Right away, Tina.”

The young ethnic Vietnamese woman then spoke repeatedly in her microphone, but didn't get any answer. What she and Tina got instead was the sight of the said shuttlecraft flashing its red navigation lights on continuous for three seconds, the unofficial space equivalent of giving the finger to someone. That made Dana Durning explode.

“The asshole! I'm going to report him to the Space Navigation Sector Administration.”

Some may have laughed at that incident, but not Tina. Any collision would have been fatal to the shuttlecraft and its occupants, while the damage to the KOSTROMA, while relatively light, could have caused a compartment to explosively decompress, possibly killing some crewmembers or passengers. She thus didn't stop Dana from stomping away to file a formal incident report. Thankfully, the rest of their docking maneuver went

on without further problems, her giant cargo ship coupling with a docking station situated at the end of a tall tower structure fixed to the asteroid's surface. Small craft and ships, on their part, simply entered a wide tunnel dug through the asteroid, exiting at the other extremity once their loading/unloading was done. The asteroid's mass was too small to have any noticeable gravity, so the KOSTROMA ended up floating above the surface of the irregularly-shaped asteroid, tethered to one of the twelve docking towers servicing the installation. Presently, ten of the other eleven docking towers were in use by passenger liners or mixed cargo/passenger ships. Frida Skarsgard, the redhead pilot of the KOSTROMA, shook her head in amusement while watching the level of space activity around the asteroid.

"I knew that this place was popular, but I didn't expect so many ships here."

"Well, Frida, if you wanted to find the biggest nest of sins in the Solar System, then this is it. About anything goes here, as long as it is consensual and between adults. Think about what a bunch of hard working space miners on leave look like after six months toiling around bare pieces of space rocks while living aboard a cramped mining ship, then multiply that by a few thousands at a time and you will get the kind of crowd you will find here."

"And how the hell can the local authorities keep order in such a place, Tina?"

"With a very firm hand, I am told. The Sverdlovsk Group, which owns this place and the rest of Hygiean space, was never known to be timid about applying needed measures to any problem. I am sure that there are plenty of Hygiean Security Forces personnel down there to keep order inside the ZERO-G NIRVANA. Well, since we are here to unload passengers and some of our surplus foodstuff, we might as well use the occasion to blow some steam before going on a year-long deep space mission."

Going to her command chair, Tina activated the ship-wide intercom system and spoke after thinking for a few seconds about her announcement.

"Attention all hands! Attention all hands! This is the Captain! We are now docked to the ZERO-G NIRVANA Docking Tower number Ten. In view of our oncoming long deep space mission, I have decided to stay docked to this installation for the next 72 hours, so that each of our three working shifts can take turns to visit the place. We will be going at half-manning during our stay here, so the shift supervisors will have to plan the coming days' work schedules accordingly. Shift 'B' will be the first to go off shift, then Shift 'C' and, finally, shift 'A'. Have fun but follow all the local rules and try to return to the ship on your own power. That is all!"

Tina could have sworn that she heard happy screams through the bulkheads of her ship then as she smiled to her bridge crew.

“Frida, you take care of planning the shift schedules for the bridge crew for the next 72 hours. In the meantime, I will go supervise the unloading of our cargo and passengers and liaise with the local authorities. Don’t do anything I wouldn’t do while on your visit here, guys and girls.”

Leaving behind a happy bridge crew, Tina took an elevator down to the Main Promenade Deck, then to the KOSTROMA’s port access tunnel, which was now connected to the reception lounge of the docking tower. A small group of Hygiean officials, including a few security officers, was on its part about to arrive at the boarding station manned by Natalia Vasilyeva and one of her assistants when Tina showed up at the station. Her eyes lit up and a big grin appeared on her face when she recognized one of the Hygiean security officers in the group of visitors.

“MICHEL!”

Michel Koniev saw her as well and waved happily at her, then accelerated his step, getting ahead of his group in time to receive Tina in his arms to hug and kiss her. The tall, handsome blond Hygiean Security Forces officer then looked at her with fondness.

“It has been a long time since we saw each other, Tina.”

“Over fourteen months, to be precise, Michel. How long have you been stationed here?”

“Two months now, and I can assure you that it has been quite a learning experience. This place is quite unique, believe me.”

Michel Koniev then turned partly around to look at one of the other officials from the station, a small and somewhat overweight man in his early fifties who could be described as anything but handsome.

“Mister Gerhard, may I present you Fleet Captain Tina Forster, owner and master of the Armed Merchant Ship KOSTROMA?”

The said Gerhard stepped forward and shook hands with Tina, a genuine smile on his face.

“It is indeed an honor to receive you here, Captain. Your exploits against those thugs from the Terran ISF forces are now legendary, as are your space victories around Mars. I am John Gacey Gerhard, owner and manager of the ZERO-G NIRVANA. Are you planning to stay here with your ship for more than a few hours?”

"I just told my crew that I was giving them 72 hours to blow steam off in your facilities, Mister Gerhard. They will soon start disembarking in three consecutive shifts."

"Excellent! Then let me express in an appropriate manner my admiration to your ship and crew."

Gerhard then turned his head to speak to a woman in civilian suit holding an electronic tablet and who was the image of the executive secretary.

"Miss Burns, advise all the service counters and sections of our installations that the crewmembers of the cargo ship KOSTROMA and their family members will benefit from a thirty percent rebate on all prices and service fees during their stay here, and this for the next three days."

He then looked back at Tina, who couldn't believe her luck, and grinned to her.

"I couldn't do less to thank those who rid us of the Zembelo goons, Captain Forster. Since you seem to know well the good Major Koniev, I am as of now placing him on a 24 hour leave period, so that he could guide you around my little establishment."

"You are too kind, Mister Gerhard. Since you are here, may I interest you in stocks of low-priced spices and other foodstuff produced aboard this ship. With all the visitors you get here constantly, your restaurants must be going through enormous quantities of supplies."

"That they certainly are, Captain. If you have a list of the foodstuff you are offering for sale, along with their prices, you may show it to my head of supplies, Mister Yamashita, to my left."

Tina nodded and took a data chip from her pocket, presenting it to the Asian man standing next to Gerhard. The man plugged the chip to his own electronic tablet and copied the file before returning the chip to Tina, then started reviewing the list of products and their prices as Tina and Gerhard presented in turn their people present. Yamashita quickly stiffened and made a quick calculation before bending over to whisper into the ear of his boss as Tina was being briefed by the head of security for the station on the various local rules and regulations.

"Sir, we are going to save over seven million credits just on the spices and vegetable oils she is offering, compared to the prices we normally pay for the same products. We also could save another two million credits on the stocks of liquors she is selling. All of her products are in fact listed at prices way below standard. If their quality proves adequate, we could end up saving in total tens of millions of credits."

"Get your food inspectors here at once to check those products. Then, if they prove of good quality, buy everything she is offering." Replied in whispers Gerhard, most happy. Such discounts on items that his facilities used in liberal quantities were going to more than compensate for the cut rates he had offered to the crew of the KOSTROMA for their visit. Called in by Yamashita, a team of food inspectors rushed in less than fifteen minutes later. Seeing how well things were going, Tina then invited Gerhard to tour the KOSTROMA while the food inspectors and Yamashita went to examine the stocks of foodstuff available for sale. That tour, with Michel Koniev and two other Hygiean officials in tow, went on for a good three hours. By the time John Gacey Gerhard was back on the Promenade Deck, his mind was boiling from all the things he had seen, which had given him ideas of his own.

"Captain Forster, your ship is truly a wonder. Your forested habitats in particular are without equal on spaceships, or even on most fixed space installations. You gave me a lot to think about."

"My hope is that more people will emulate my example, Mister Gerhard, so that the quality of life in space could be improved."

"A most commendable wish, Captain. So, where are you headed with your ship after this stop, if I may ask?"

"You may, Mister Gerhard. After our stop here, I will head to Callisto, where we are soon due to leave for a year-long mission to go explore the dwarf planet Eris and install a scientific base there."

"One year in deep space!" Exclaimed the brothel's owner. "That is a very long time away from everything else, Captain."

"Indeed, Mister Gerhard, but the ultimate payoffs for Humanity could be huge, starting with the possible extra resources in hydrocarbons we are expecting to find on Eris. It will also give us an astronomical observatory further from the Sun than anything else we have. Overall, it will be a space expedition that history will remember."

Tina said the last sentence with passion, her eyes gleaming. Gerhard nodded at that, understanding her feelings about such a mission. His own dreams were however quite different from hers and mostly involved things not discussed in polite company.

"I hope that your mission to Eris will go well, Captain Forster. Well, I will now leave you in the good hands of Major Koniev, who will give you in turn a tour of my facilities. I hope that you will find something to your taste here."

"I already have, Mister Gerhard." Replied Tina, smiling, while pressing Michel Koniev's hand, attracting an approving nod from the brothel owner.

"Then, have fun, both of you."

"Thank you, sir." Said Koniev before Gerhard turned around and walked away with his aides, leaving Tina alone with the Hygiean security officer. Both smiled to each other, with Michel then speaking first.

"Do you wish to change out of your ship's outfit before we start our tour?"

"Naah! I just came on duty barely two hours ago. As for personal items, if I need any during the tour I figure that I will be able to buy them in this place."

"Correct! This place is meant after all to make money, as much by selling things as by offering all kinds of services. As long as you have money, you will not be short of anything here. Shall we start the tour, then?"

"I'm now in your capable hands, Michel. Lead the way."

Walking hand in hand down the 250 meters of the Kostroma's port access tunnel, which extended to just past the outer rim of the Bow Gravity Sail saucer and was lined up on both sides by small trees and bushes, the couple passed the opened armored doors of the outer airlock, to then enter the access tube of the docking tower, which was only a hundred meter long. Tina smiled on seeing the message on the giant display board fixed above the reception rotunda of the docking tower: it already announced a thirty percent discount on all products and services for the crewmembers of the KOSTROMA and their family members.

"Your boss was quick to implement his promise, Michel."

"Oh, you will find him to be a very efficient man. He also is very good at understanding the psychology of his fellow humans, especially when it concerns their fantasies and perversions."

Presenting themselves at one of the reception counters, Michel had Tina register as a visitor before leading her into a waiting elevator cabin, punching a level number and making the cabin accelerate downward. He use the fairly brief trip to give her a few tips.

"Since this place caters to the secret fantasies and perversions of its visitors and guests, the right to privacy and anonymity is actually taken very seriously here. No photographic, video or audio recording equipment or device is normally allowed inside the brothel, even wrist videophones with embedded cameras. You were allowed to keep your own wrist videophone only because I am escorting you around."

"But, if someone needs to contact you, how do you get in touch without a wrist videophone?"

"The reception desk we went through would normally have given you temporarily an audio only wrist phone in exchange for your videophone. The big fear of many customers of this space brothel is to be seen in, uh, embarrassing or incriminating situations or company and to have their pictures shown in the medias by reporters from scandal sheets. We also are concerned with individuals who would try to record spicy scenes in order to produce their own pornographic videos and then sell them. We have quite a long black list of banned reporters, cheats, preachers and other troublemakers, who are turned away as soon as they are identified at our reception points."

"Preachers? As in damnation in Hell and penance from sin? Such fossils still exist?"

"Oh yes, Tina! Some of them are also first class hypocrites. One such preacher was recognized and caught a few months ago, after he had tried to entice an apparent minor to his cabin."

Tina rolled her eyes before she caught on the choice of words by Michel.

"Wait! An apparent minor? What do you mean by that?"

A devilish smile appeared on Michel's face at that question.

"It actually is one of the more brilliant ideas from Mister Gerhard himself. Despite all that happens here, there are limits to what is allowed, like no sex with minors or coercive or truly violent sex. In order to catch pedophiles, Mister Gerhard had the idea of using young security officers who look seriously underage as baits. The pedophile preacher concerned here had brought a female undercover officer to his cabin, even though she had told him she was only fourteen. The old bastard was 62 years old, by the way."

"The old fart! What did you do with him afterwards?"

"We kicked him out and put him on the first ship headed back to Earth...after advising his wife, who was still on Earth."

Tina shook her head, partly amused and partly incensed.

"You must have some interesting times around here, then?"

"Oh yes! However, all security officers serving in this space brothel are sworn to confidentiality about what they see and encounter here. You break the confidentiality of the customers and you end up in very serious shit."

"So, what kind of perversion are you going to show me, Michel?"

Michel looked at her with a big grin.

“All of them! I am going to give you the same tour our security agents do to check on possible illegal or prohibited activities inside the various sex rooms.”

Their cabin soon stopped, with its doors sliding open and revealing a large rotunda with multiple service desks, each positioned besides an adjacent door. Michel led an intrigued Tina to one of the service desks and smiled to the attractive young woman manning the desk.

“High, Michelle! I am showing the place to Fleet Captain Forster, of the KOSTROMA.”

“The Victor of Mars? Captain Forster, it is a true honor to meet you.”

Tina shook hands with the receptionist, not a little flattered.

“Thank you! Decidedly, I am better known around than I suspected.”

“But, you deserve to be known, along with your ship, Captain Forster. So, what would you like to see or experiment?”

“Uh, I’m only touring the facility for the moment. Michel is guiding me.”

“We are going to use the security walkway.” Said Koniev, making the receptionist nod in understanding before punching a button on her control board. Tina then saw a screen facing her and Michel and fixed to the front of the desk at an angle light up, showing numerous color rectangles with words in them. Those words in turn described about every sexual fantasy, orientation or perversion one could think of. A small baffle built around the display prevented other persons from seeing what rectangle Michel touched and activated. A door adjacent to the desk then opened, revealing an elevator cabin in which Michel led Tina by the hand. He explained what was happening as the door of the cabin closed.

“To ensure total confidentiality and to prevent others from knowing what part of the facilities you visit, these service desks offer you a discreet choice of sexual services or experiences, then you take an elevator that goes down to the level of the chosen service or activity type. This way, you meet the absolute minimum of other guests while enjoying the facilities of this space brothel. Normally, you would have to pay in advance at the service desk for what you choose but, since I am escorting you around as a visitor, you get the tour for free. If you see something that you like, just tell me.”

“Why, thank you! That’s quite generous from your boss.”

After a very short trip, the cabin stopped and opened, letting them step in a long, curved corridor that extended out of sight in both directions.

“We are now in the security walkway loop, which runs just above the corridors and rooms used by the customers and other employees of the brothel. From the loop, my guards can watch for any unauthorized activity in the various sex rooms and, if need be, get to them quickly. If you will follow me, Tina.”

Going left along the curved corridor, Michel led Tina to a sort of small viewing cabin opening on the inside wall of the walkway loop. The angled windows of the cabin gave an excellent overhead view of a large padded room with chains, manacles, torture racks and other sinister instruments. A bit taken back at once by that, Tina then saw a masked matron busy flogging a man attached to an ‘X’ frame. The matron wore a leather outfit that let her big breasts exposed and hanging out, while the man wore a leather mask and steel-spiked collar...and nothing else. Tina quickly noticed that the whip used by the matron, who was targeting the erect penis of the man with obvious relish, was a rather inoffensive one made of a light and flexible material. Michel then explained to her what they were looking at.

“This is one of our S&M play rooms. A female customer is playing out a personal fantasy with one of our employees. Don’t worry about him: that whip won’t harm him one bit, even though he is faking pain for the benefit of the customer’s enjoyment. When she will have aroused herself enough, that customer will then use our employee to satisfy herself. Believe it or not, but those kind of tastes are quite a lot more common than you would think.”

“I see! I must say that your male employee is quite well endowed in terms of, uh, personal equipment.”

That remark made Michel smile before he looked at Tina.

“Our sex workers are chosen for both their physical attributes and for their open mindedness. They are however not forced to do things that they don’t want to do: we have enough sex workers to cover about any customer taste imaginable. Apart from S&M, customers can choose straight sex, bisexual sex, lesbian or homosexual sex, erotic massages, group orgies, mechanical sex, sex in zero gravity and many more types of activities and experiences.”

Starting to warm up to his game, Tina smiled to the tall and handsome Michel.

“And what kind of sexual fantasy would you like to experiment with me, Michel?”
Michel grinned in turn at that question.

"I thought that you would never ask."

Much later, Tina blew air out as she stepped out of an elevator cabin with Michel and entered the lobby of a large restaurant.

"Wow! That erotic massage session with you and three naked masseuses was something to remember. I understand now why asteroid miners are ready to blow away six months of pay in visits to this space brothel. Your boss must make a fortune with this place. How many people do you get here on average?"

"We receive on average over 3,000 visitors per day at the ZERO-G NIRVANA. Mister Gerhard is very proud of this place: it is truly unique in the Solar System. Apart from offering sexual services, it also has a collection of top quality restaurants, hotels and boutiques of all kinds. The spices you just sold us won't take long before being used in our various restaurants. If you're not really hungry yet, we always could go have a few drinks at the..."

An urgent tonality from his radio earpiece then interrupted him, making Michel stop in the middle of the lobby.

"Major Koniev?"

The voice of the shift supervisor at the space traffic control center of the asteroid then came on line, sounding clearly worried.

"Major Koniev, this is Captain Semianov, at space traffic control. We have an unidentified ship boring on our asteroid at high speed. Its radio and radar beacons are off and it is refusing to answer us. Instead of decelerating to dock with us, it has just started accelerating under fusion rocket power and is heading straight for us."

"Is he nuts? He will be vaporized if he impacts this asteroid. How big is that ship?"

"From its radar signature, it appears to be a heavy ore carrier, Major. If it indeed collides with us, the whole asteroid will probably fracture and may even fly into pieces." Michel fell silent for a second as he mentally pictured the results of such a collision, while Tina looked at him with worry showing on her face.

"What is happening, Michel?"

"A large, unidentified ship is accelerating directly towards this asteroid and is not answering calls to slow down." Answered Michel before activating his microphone again. "Continue trying to hail him, Semianov. In the meantime, sound the general alert and have everybody go don emergency spacesuits. I'm on my way!"

When he was finished speaking and turned around to face Tina, he found her speaking in her wrist videophone.

"...and effect an emergency breakaway procedure. Intercept that incoming ship and, if it still refuses to change course, destroy its engines with laser beams and then tow it off course with our tractor beams... Don't wait for me, Dana: time is short. Good luck!"

"You are sending your KOSTROMA after that ship?" Asked Michel when Tina was finished, making her nod her head.

"Yes! If that ship is as big as I think it is, then only a megaton ship like my KOSTROMA will have the mass and power to drag it off course in time to avoid a collision with this asteroid. Let's go to your space traffic control center."

As they ran back into the elevator cabin they had just exited, a sinister alarm horn started sounding off, accompanied by a verbal message delivered in a firm, urgent tone.

"ATTENTION, ATTENTION! EVERYONE IS TO IMMEDIATELY DON AN EMERGENCY SPACESUIT AND ASSEMBLE AT THE NEAREST EVACUATION STATION. I SAY AGAIN, EVERYONE IS TO IMMEDIATELY DON AN EMERGENCY SPACESUIT AND ASSEMBLE AT THE NEAREST EVACUATION STATION. THIS IS NOT A DRILL."

15:43 (Universal Time)

Bridge of the A.M.S. KOSTROMA

"All our airlock doors are now closed and secured, Dana. The docking tower's airlocks are also closed and secured."

"Then release our docking clamps! Frida, fly us out on gravity sails and head on an intercept course for that unidentified ship."

Dana Durning, the ship's chief navigator and unofficial first officer, now sitting in the command chair on the bridge, next punched the ship's intercom button.

"Battle stations! Battle stations! All support personnel and passengers are to don emergency spacesuits and wait in their quarters. Engineering, be ready to light up our main fusion drive."

Dana then looked at Anwar Duharto, one of the bridge sensors specialists.

"Anwar, do you have that ship on our sensors?"

"It just entered the edge of our long range sensors' coverage, but I am receiving as well the picture from the asteroid's sensors, which have a much longer range than ours. We have enough data to plot an intercept course."

"Excellent! Do we have yet a tentative identification on that approaching ship?"

"From the fusion drive flare signature and apparent size of the ship, I would say that it is probably a KLONDIKE-Class ore carrier, with a maximum loaded mass of about three million tons. Let me just check with the local space traffic logs to see if I can identify it further."

After about a minute, and as Frida Skarsgard was backing the KOSTROMA away from the asteroid, Duharto spoke again to Dana.

"According to the most recent traffic logs, the only KLONDIKE-Class ore carrier present in this sector is the M.S.S. YUKON, a North American Union registered ship that was supposed to be on its way to the Jovian System, coming from the Earth."

"The Jovian System? That ship is way off course! This can't be a simple navigation error or a computer malfunction, especially since they are now accelerating instead of decelerating."

The first pilot of the KOSTROMA, Frida Skarsgard, gave a concerned look to Dana.

"Maybe the crew doesn't have control of its ship anymore, Dana?"

"What do you mean, Frida?"

"That it may have been hijacked. Since it is accelerating towards the ZERO-G NIRVANA, my bet is that whoever is in control of the YUKON wants to ram the asteroid and destroy it. We may be looking at a terrorist attack, and a possible suicide attack at that."

"Damn! Anwar, advise the ZERO-G NIRVANA of our suspicions. In the meantime, I will calculate an optimum intercept course."

"I'm on it, Dana!"

In the space traffic control center of the asteroid, Michel Koniev, who had just arrived with Tina Forster, heard the message from the KOSTROMA and paled.

"My god! If that ship does collide with us, this asteroid will burst into pieces. We presently have over 5,000 persons in our facilities. Tina, do you think that your ship will be in time to deviate that ship from its collision course?"

"I believe so, but then someone will still have to board that ship, to make sure that it doesn't attack again."

Michel nodded his head, his mind quickly formulating a plan of action. He then spoke on the radio frequency used by the security forces of the asteroid.

“First Intervention Squad, this is Major Koniev. Prepare at once for a space assault mission and meet me at the interceptors’ hangar. I want the crew of Interceptor Number Four to prepare as well for a space mission. Time is short, so make it fast!”

“Can I come with you, Michel?” Asked Tina as Michel started running towards the nearest elevator. Michel simply twisted his head while continuing to run.

“No! You will be more useful here. Monitor the situation from here and keep liaison with your ship.”

He then ran into an elevator cabin, leaving Tina alone with the four technicians manning the space traffic control center. A short elevator ride to two levels below brought him to the security division of the space brothel, where he exited the elevator and ran to the male locker room, where his spacesuit and weapons were stored. On entering the locker room, he found the leader of the First Intervention Squad, Sergeant Stefans Kaltigins, already suiting up for space, along with Troopers Karl Suomin and Gregor Warchawski. Kaltigins, whose locker was in the same row as that of Michel Koniev, gave him a questioning look while slipping in his inner spacesuit garment.

“What’s up, Major?”

“We have an ore carrier that is rushing at our asteroid and is not answering calls. This is to be treated as a terrorist ship hijacking and, possibly, as a suicide ramming attack. The KOSTROMA is already on its way to intercept that ship and will do its best to deviate it from its collision course. Our job will be to board that ship once it is captured by the KOSTROMA and to either capture or kill the hijackers.”

Kaltigins, a veteran of the fighting on Mars and Earth during the war against the now-defunct Terran Federation, nodded his head and continued to hurriedly don his spacesuit as Michel opened his own locker and started to undress. Once completely naked, save for his socks and T-shirt, Michel first fitted a urinary tube to his penis, then put on an adult diaper, carefully routing the urinary tube so that its end stuck out of the top edge of the diaper. That procedure, while a bit embarrassing for many, was still essential if one didn’t want to swim in his own urine and excrement inside his spacesuit after a few hours. The procedure was actually a bit more delicate for females and necessitated a different type of urethra adapter. Next on was his inner spacesuit garment, a skin hugging two-piece coverall to which were incorporated thermal body sensors, heating electrical resistances and water circulation tubes meant to warm or cool

various parts of the body as needed. Michel then put on the soft helmet that was to keep his head to the correct temperature and that also incorporated a pair of radio earpieces, a throat microphone and a remote vision visor paired with miniature multi-spectral cameras. Taking one step to the right, Michel faced his pressurized spacesuit shell, covered by a layer of tough, rip and puncture-resistant fabric that provided the suit with thermal and anti-radiation protection. The spacesuit was stored inside a large separate locker, its back facing the door and bent over support bars. Opening the large back access hatch of the suit, which supported the life support systems backpack, Michel grabbed an overhead bar inside the locker and, bending his knees, slipped feet first inside the spacesuit. Still keeping his torso and head out of the spacesuit shell, he quickly connected his urinary tube and inner garment electrical and water tube connectors to the appropriate ports inside the pressurized shell, then slipped his arms inside the suit's sleeves and entered his torso and head in the hard shell of the suit. The transparent helmet of the suit was large and of the fixed type, leaving his head free to twist inside to look around. The last step to putting on his spacesuit was to walk out of the suit locker and lean back against a wall, closing the rear access hatch with an audible click. While the whole procedure sounded involved and complicated, it actually took less than three minutes to complete by experienced spacers, a huge improvement over the first bulky spacesuits of the 20th Century. The hard shell allowed the suit to function with standard air at normal atmospheric pressure, eliminating the need for long pressurization and depressurization periods meant to prevent air embolisms in suits using reduced atmospheric pressure. After double-checking that his back hatch was secured and his suit systems were functioning, Michel opened the valve that allowed him to use the ambient air in the room, then quickly armed himself with a 6mm recoilless rifle, a recoilless pistol and a stun pistol, plus extra ammunition and an assortment of grenades. His recoilless rifle, like his recoilless pistol, used bullets that were in essence small rockets, with the hot gas from their solid rocket motors venting out through a fork-like shoulder butt. The felt recoil was nearly nil, allowing firing in zero gravity conditions without the shooter ending spinning wildly after each shot. The problem of aiming while inside a suit with a large helmet was solved by using an electro-optical sight attached to the rifle and connecting that sight via a wire to the remote vision visor of the spacesuit's inner soft helmet. A laser dot sight fixed to the rifle also helped in quickly aiming it in close combat situations.

Now ready for his space mission, Michel eyed how his intervention squad fared in equipping themselves. The fourteen male members of the squad were now all inside their spacesuits and were also armed or in the process of arming themselves. Corporal Masha Goriunov, the combat paramedic attached to the squad, was also present and fully ready, having come from the female locker room.

“Is Trooper Litvyak about to be ready, Corporal Goriunov?”

“Yes, Major! She is in her suit and is doing a final check on her electronic equipment.”

Just then, the attractive blonde computer hacker specialist came in the male locker room, carrying an electronic equipment bag on top of her weapons.

“Trooper Litvyak present and ready, sir!”

“Excellent! Let’s go to the interceptors’ hangars, then.”

Followed by the sixteen members of the intervention squad, Michel went through one of the doors of the locker room and crossed a hallway, opening a large door and entering a small room that contained two large sleds that sat each on a set of electric levitation rails. The sleds were reserved for the sole use of security personnel, while the rails entered a tunnel that led to the craft and interceptors hangars complex. Using both of the sleds, Michel and his squad got within seconds to the interceptors’ hangar, where they found the five crewmembers of Interceptor Number Four already inside their armed craft. Michel gave an order by radio as he was boarding the interceptor.

“Okay, people, let’s get this show on the road: time is short!”

On the bridge of the KOSTROMA, now rushing in space on gravity sail power, Dana Durning glanced nervously at the large sensors display sphere situated on the lower platform of the bridge complex. They were going to be able to intercept the M.S.S. YUKON in time, but there would be no room for errors.

“Mister Duharto, have our laser battery ready to fire on my command. Patricia, I want our tractor beams slapped on that ore carrier the moment that we are alongside, so that we can start pulling it off course without delay. Ingrid, are we getting any response from the YUKON?”

“Nothing, Dana! These guys are as silent as a fish.”

“There is however somebody at the helm of that ship, Dana.” Said Patricia O’Neil. “The YUKON just did a slight trajectory correction in order to line up precisely on the ZERO-G NIRVANA. If left on autopilot, the ship’s computer would have

automatically forced the ship away from the asteroid. I wouldn't be surprised actually if the YUKON's main computer has been switched off, in order to prevent it from foiling this ramming attack. My bet is that we are dealing here with terrorists on a suicide mission."

"I think that you are right about that, Patricia. Advise the ZERO-G NIRVANA's space control center of this and also download to them the basic schematics of the KLONDIKE-Class ore carriers, so that the Hygiean boarding team can find its way inside that big sucker."

Dana didn't have to speculate much in order to figure out who could launch such a murderous, senseless attack. The Southern Federation, and particularly the African Union, was still bitter at having lost the war against the Northern Alliance and the Spacers League, a war that the Southern Federation itself had started following the military coup by Zembelo and his ISF goons against the Terran government of Chief Administrator Lee, who had been killed in his own home by ISF troopers. The Spacers League's asteroid strike that had destroyed the city of Lagos, along with the secret ISF laboratory producing chemical weapons meant to poison the Spacers' space habitats, had created intense resentment against the Spacers among the populations of Africa, which was still run, or rather mismanaged, by ex-associates of Zembelo. While the war had been over for nearly two years now, the reality was more like a tense armistice than a real peace, with extremist groups in Africa and South Asia vowing revenge on the Spacers League and the Northern Alliance. That de-facto continued hostility from the South had forced the Northern Alliance into placing strict limitations on commerce and people traffic from Africa and South Asia, while the Spacers League had effectively blockaded any spaceships from landing or taking off from those two regions. As a result, the economies of Africa and South Asia were in a death spiral, while their still unrestrained population growth was causing increasingly severe food shortages and mass misery. Unfortunately, the political leaders of those two regions used that misery and famine to build up popular hatred against the Northern Alliance and the Spacers League, blaming them for the population's hardships while hiding their own mismanagement and corruption. At the present rate, something was liable to blow out of control in the coming years. An announcement from Ingrid Holtz then took Dana out of her dark thoughts.

"Dana, I have one interceptor craft with an assault boarding party on approach to the YUKON."

“Good! Anwar, are we close enough for precision laser shots against the fusion drive of the YUKON?”

“Yes, we are, Dana.”

“Then, fire when ready. Target only the fusion exhaust nozzle section.”

“Firing now!”

A blue-green, forty centimeter-thick 240 megawatt laser beam stabbed through the void of space, hitting the fusion exhaust nozzle of the M.S.S. YUKON in an explosion of sparks. Its magnetic plasma containment field compromised, the integrated computer controlling the fusion engine drive of the ore carrier automatically shut off the fusion process before the super hot plasma could melt critical parts. The sudden loss of propulsion power was like a cold shower for the five men and women occupying the bridge of the ore carrier. The thin black man sitting in the captain’s chair swore loudly before looking at the woman, also an African, who was sitting at the sensors station.

“Zamina, go active on the sensors: find out who shot at us.”

The ex-ISF sensors specialist’s fingers danced on her station’s controls as she switched from passive to active sensors mode. What her instruments told her made her swear loudly after a few seconds.

“A huge ship is approaching us from our port flank, Sese. SHIT, THAT’S THE KOSTROMA! A small craft is also approaching from the same sector.”

“THE KOSTROMA, HERE?” Raged the terrorist leader, feeling instant hate and bitterness fill him on hearing that cursed name. The KOSTROMA had been rightly considered as the nemesis of the defunct Earth Federation and the chief culprit in the fall of the Zembelo regime. It had cut to pieces the Terran fleets sent to both Mars and Callisto, in the Jovian system, then had destroyed the main ISF bases and headquarters on Earth. To encounter it here, where they had expected no serious opposition to their suicide mission, was a huge blow to their plans.

“Nelson, can we still get to the asteroid on gravity sail power before the KOSTROMA gets close enough to us to use its tractor beams?”

“Not a chance, Sese!” Replied at once the black man occupying the engineering control station. “This ore carrier’s gravity sails are meant only for orbital maneuvering and docking, not for true space propulsion.”

The head terrorist chewed on that answer for a few seconds. With their ship’s main drive knocked out and with the weakness of their gravity sail propulsion, the

KOSTROMA would easily be able to pull them off course from their collision trajectory once it got close enough to slap tractor beams on the ore carrier, thus turning their mission into a failure. However, there was no way that he would ever surrender to those Spacers.

“Very well. Abandon your work stations and grab your rifles, all of you! Let’s make those bastards pay when they will board this ship.”

“Major, the KOSTROMA has now grabbed the YUKON with its tractor beams and has started to pull it off its collision course.”

Michel Koniev blew air in relief at that announcement from the sensors operator of their interceptor: whatever happened next, at least the ZERO-G NIRVANA was not in danger anymore of being pulverized, along with its 5,000 occupants. The job was however far from finished.

“Good! Lieutenant Yuvchenko, get us close to the aft emergency personnel airlock of the YUKON, so that we could jump to the ore carrier.”

“Understood, Major!”

Michel next looked at his sixteen security troopers, all still in their space suits and firmly strapped in their seats in the troop compartment of the interceptor.

“Listen up, people! We will soon jump and set foot on the target near its aft emergency airlock, which can be opened manually from the outside. Hopefully, the bastards who seized that ship didn’t jam or block the doors of that airlock. Once inside, we will make our way cautiously to the bridge and the engine room, but keep your eyes peeled for booby traps and demolition charges. You all have now in the memory of your tactical viewers the schematics of this ship’s class. Study them during the time it will take to close in on the target, with particular attention to the path between the aft emergency airlock and the bridge and engine room. Once inside, Corporal Terlecki will lead Fire Team Bravo and Trooper Litvyak, our computer hacker, towards the engine room, where he will power down the YUKON’s gravity sails propulsion. Me and Sergeant Kaltigins will make our way with Fire Team Alpha and our remaining support specialists towards the bridge. If we can capture alive one or more hijackers for interrogation, the better, but don’t risk any of us for that. Since they were on a suicide mission, I am not expecting anyway for any of those hijackers to surrender. Questions?”

“Sir, what about the original crew of that ship?” Asked Trooper Kardayev, a wiry, tough young man. Michel made a disillusioned expression at that.

“As much as I hate to say this, I don’t expect to find any of the original crewmembers to be still alive. They were probably murdered after the hijackers seized their ship. Let us concentrate on taking back control of that ship. Once that is done, we will do a detailed search of the ship. Now, do a last check of your equipment and suits.”

Fourteen minutes later, as the ore carrier’s bulk filled the external viewer’s screen in the troop compartment, Michel heard the voice of the pilot, Lieutenant Yuri Yuvchenko, in his radio headset.

“We are now stationary along the hull of the M.S.S. YUKON, less than fifteen meters from the aft emergency airlock, Major. You may jump ship now.”

“Acknowledged!” Said Michel before getting up from his seat, his recoilless rifle in hand. “EVERYBODY UP! GET READY TO JUMP TO THE YUKON!”

Taking the lead, Michel got close to the control pad of the airlock. He then depressurized both the airlock and the troop compartment, which was designed to allow that without compromising the whole interceptor’s atmosphere, so that mass assaults could be launched quickly. Opening the armored external door, Michel saw the outer hull surface of the YUKON facing him, with the target airlock door in direct sight of him. Activating his suit’s gravity propulsion unit, he flew out towards the ore carrier’s airlock door, his rifle at the ready.

“FOLLOW ME!”

The seventeen Hygiean Security Force men and women emerged one by one in quick succession from the hovering interceptor and flew quickly to the hull of the ore carrier, where their magnetic boots allowed them to stand on its surface around the emergency airlock door. Tense as a loaded spring, Michel examined briefly the manual opening mechanism and saw no apparent trap. If there were any, they were probably inside, out of his sight. Praying that nothing would blow in his face, Michel firmly pushed on the opening handle, engaging its gear mechanism, then started turning the wheel. To his relief, the outer airlock door started sliding open at once. Once the door was opened wide enough for him to have a look inside, Sergeant Stefans Kaltigins stuck his head inside to quickly inspect the airlock.

“I see nothing suspect, Major.”

“Good! Get in once the door is opened enough, then initiate the normal electronic command sequence to cycle through the airlock and get inside the ship. If no

booby trap blows in our face by then, we will then cycle through the rest of the squad by groups of five.”

“Understood, Major.” Replied Kaltigins in a calm voice, despite the fact that he was basically going to serve as the guinea pig for the rest of the squad, to find out if the airlock had been rigged with explosives or not. The NCO soon was able to enter the airlock, at which time Michel disengaged the manual opening handle to let Kaltigins use the normal controls inside. The outer door slid back closed and there were a few tense seconds of waiting for Michel and his troopers before the voice of Kaltigins came on the radio.

“I’m now inside, Major. There are no visible booby traps in or near the airlock: it is safe to use the controls of the airlock in my opinion.”

“I copy that!” Said Michel on the radio. “Dijkstra, Morosov, Titov and Litvyak, follow me!”

His heart beating at an accelerated pace, Michel pushed the ‘open’ button of the outer door, making the steel panel slide out of the way, and jumped inside, followed closely by four troopers. He then closed again the outer door and hit the ‘pressurize’ button. The hiss of air filling the airlock went on for maybe six seconds before the indicator light of the airlock turned to green, showing that it was now safe to open the inner door. Activating that door, Michel found Kaltigins crouched with his back to him, covering the corridor beyond the airlock with his recoilless rifle. Entering the ship quickly, he then hugged one wall to let the four troopers behind deploy out of the airlock. Calling next a second group inside, Michel made his whole squad enter in less than two minutes. He got a radio message from the interceptor as he was about to move further inside.

“Interceptor to assault team: the KOSTROMA has safely pulled the YUKON away from the asteroid. You can now proceed at your own leisure.”

“Excellent! Stay vigilant, in case the hijackers try to flee in a shuttle. Out for the moment! Corporal Terlecki, make your way to the engine room with your team. The rest, follow me towards the bridge. We will avoid using the elevators for the moment.”

Letting Terlecki and his five troopers go towards the nearby engine room, Michel went to the nearest staircase tube, entering it and then using his gravity drive unit to fly up towards the bridge level, more than 700 meters above. He had to negotiate in succession six partition airlocks, which were designed to avoid a single air leak from compromising the whole communications tube. Michel however became increasingly

cautious as he approached the last partition airlock before the bridge level: if the hijackers had prepared booby traps, this was one obvious place to put one.

“Corporal Dijkstra, check that partition door for booby traps or alarms.”

“Yes sir!” Answered the demolitions specialist before moving past Michel to examine the partition door. Dijkstra used a multispectral scanner before touching anything, soon getting a picture in the Gamma spectrum that made him swear quietly.

“Tchiort¹! I can see wires connected to the door handle on the other side, with the wires leading to what seems to be a couple of blocks of plastic explosives. I can’t do a thing from this side, Major.”

“Damn! Then, let’s go back to the previous level and see if that way is safe.”

Leading his ten troopers, Michel backtracked one level down, leaving the communication tube and stepping in what was the crew’s mess deck, according to his digital plan of the YUKON. Advancing cautiously towards the entrance to the staircase leading to the bridge level, he again had Corporal Dijkstra check it first for booby traps and alarms. He swore quietly when Dijkstra again found an explosive charge rigged on the opposite side of the airtight door at the top of the staircase.

“Damn! Those bastards must have booby-trapped every access point to the bridge level. Even if we remotely trigger this charge from a safe distance, the collateral damage may open this deck to space and decompress a sizeable portion of the ship. If the original ship’s crew is still alive somewhere, that could kill them.”

Sergeant Kaltigins gave him a sober look at those words.

“I don’t want to be a pessimist, sir, but I doubt that those bastards kept the crew alive after capturing the ship, unless they intended to use them as human shields.”

“You may be right, Sergeant, but I still am not ready to cause significant damage to this ship until we know for sure what happened to the crew. Have your troopers search this deck for any secondary access point to the bridge deck, but tell them to let Corporal Dijkstra first check anything found for booby traps.”

“Understood, sir.”

¹ Tchiort : The Devil in Russian.

Dispersing his squad in pairs, Kaltigins then left Michel near the entrance to the staircase. The latter had to wait only four minutes before he got a radio report from the veteran NCO.

"Sir, we found the ship's crew in the cold storage room of the galley: they are all dead."

Controlling his sudden surge of anger, Michel acknowledged the call and quickly walked to the galley, joining Kaltigins at the opened door of the cold storage room. His first look inside made him swear again.

"The fucking bastards!"

Piled three-deep on the floor of the storage room were dozens of bodies soaked with blood. Michel then noticed in the pile the little bodies of two young children, a toddler girl and a preteen boy, who had also been shot dead. As he fought to control his mounting rage, he also noticed that a few of the dead, all of them young women, were either naked or half undressed, lying on top of the other crewmembers. Sergeant Kaltigins spoke up, disgust in his voice.

"Those pieces of shit apparently took the time to rape the prettiest women onboard before killing them, sir. What are your orders, sir?"

"We still look for an unguarded access point to the bridge, Sergeant. I want as much as possible to take alive at least one of these bastards, so that we can later make him say who sent them on this suicide mission. Have half of your troopers ready their stun guns when we break into the bridge."

"Got it, sir."

The searching then resumed. Ten minutes later, a call from Kaltigins made Michel join him near the access grill of a ventilation shaft running up and down the long axis of the ship. The grill had already been unscrewed by Kaltigins and was lying on the deck.

"Sir, this ventilation shaft runs up through the bridge deck, with most probably one or more ventilation openings there. I am ready to go explore it to see if we could use it to infiltrate the bridge section."

"Go for it, but be careful: it could also be booby-trapped."

Kaltigins smiled at that remark.

"Don't worry about me, Major. My wife Mara is expecting me for supper: she would kill me if I missed her beef stroganoff."

Michel briefly laughed at that, then patted the shoulder of the NCO's spacesuit.

"Then good luck, Sergeant. I will have the squad ready to follow you if you find a clear way to the bridge."

Kaltigins nodded his head, then activated his suit's anti-gravity drive and entered the ventilation shaft before floating upwards. The shaft was quite large, with a section area of at least two square meters, allowing the sergeant to move quite quickly. He still kept vigilant, looking for any trip wire or infrared detection beam with the help of his helmet's thermal and light intensification cameras, whose images were relayed to his goggles. He was arriving close to a ventilation grill that must be opening at bridge level when his eyes caught a very thin, nearly invisible wire strung across the ventilation shaft. Slowing down at once, he grabbed a wall stiffener and pulled himself to a stop just short of the trip wire to examine it, his heart accelerating: one false move here and he would probably be blown to bits. Checking both ends of the wire, he effectively found a grenade that had been taped to the shaft's inner wall, at the corner of two stiffeners, with the trip wire attached to the safety pin. If he would have caught the trip wire, that would have pulled away the safety pin, priming the grenade and making the arming handle fly off. In the confines of the ventilation shaft, he would have had no chance to survive the subsequent explosion. Carefully examining the grenade for any anti-lifting device or second booby trap, Kaltigins found none and let out a breath of relief. It was child's play then to simply cut the trip wire while holding the safety pin in place. Once secured, he pocketed the grenade and cautiously looked through the holes of the ventilation grill. His heart jumped in his chest when he saw that he now had a direct view inside the bridge itself. After a good look inside the bridge, he lowered himself and activated his helmet radio.

"Major, this is Kaltigins. I have found a ventilation trap that gives directly into the bridge proper. I had to disarm a booby-trapped grenade first but the way is now safe. I could count five terrorists inside the bridge: four men and one woman. They are all presently watching the two access doors of the bridge and are armed with assault rifles, over."

"Great job, Sergeant! We are on our way to join you."

Less than two minutes later, the bulky shape of Michel Koniev in his spacesuit joined him just below the ventilation trap. Michel took the time to sneak a peep through the trap first, then looked at his troopers, all lined up single file down the shaft.

"Okay, this is the plan: Sergeant Kaltigins will go first and crash through the ventilation grill, his stun gun at the ready. He will then take down at least one of the terrorists for later interrogation while we cover him from the opening with our rifles. Troopers Rizkin and Suomin, you float up past me and take position above me, ready to fire. Troopers Kardayev and Dobrinin, you pull up to each side of the opening and fire at an angle, using buzz saw shooting. Once the targets are all down, we will all jump inside one by one. Move now, but be silent about it!"

Two minutes of cautious shuffling around inside the ventilation shaft followed as the troopers floated past each other in the restricted space, careful not to make any noise. Michel finally decided that his troopers were now all in proper position and patted Kaltigins' shoulder.

"You can go in when ready, Sergeant."

Taking a deep breath first to calm down, the NCO, bent into a crouch against the wall opposite the grill, rammed it with both feet, making it fly off while he jumped inside, his stun pistol at the ready. By sheer luck, the flying ventilation grill struck the nearest terrorist, a black woman, on the side of her head, knocking her to the ground. Kaltigins then chose her as his target, as she was likely to be less resistant to the impact and electrical discharge of his stun projectile compared to the four male terrorist, who were all much bigger than her. The rubber head of the 30mm projectile hit the woman's ribs at a velocity of sixty meters per second, expanding to a diameter of eighty millimeters on impact while delivering at the same time a 90,000 volt jolt. The assault rifle of the woman flew out of her hands as she was projected to the deck, convulsing from the electrical discharge. At the same time, Koniev's four troopers opened fire with their recoilless rifles, downing the other four terrorists in a hail of automatic fire before they could reply. The Hygiean troopers then jumped one after the other inside the bridge, led by Koniev, and checked at once the downed terrorists.

"Sir, this one is wounded seriously but alive!" Shouted Trooper Suomin to Michel.

"Make sure that he is fully disarmed, then tie him up before providing first aid. If we could keep him alive for interrogation, the better. Sergeant Kaltigins, how is your prisoner?"

"Stunned and in pain but otherwise intact, Major. I have already handcuffed and disarmed her."

“Excellent! Corporal Dijkstra, start disarming the booby traps placed at the access doors.”

“Right away, sir!”

As Dijkstra went to the main access door to disarm the explosives placed against it, Michel called by radio the interceptor and the ZERO-G NIRVANA operations center by radio.

“This is Koniev! We have control of the bridge of the YUKON and have killed three terrorists and captured two others. We will need urgent medical treatment for bullet wounds to one of the prisoners. We found the crew murdered and piled inside the cold storage room of the galley. My troopers will soon start a detailed search of the ship to make sure that no terrorist is still on the run, over.”

“Nice job, Major!” Replied the voice of John Gacey Gerhard on the radio. “I will send you a second squad to help you search the ship, out.”

His adrenaline levels starting to come down, Michel gave a quick look at the female terrorist, who was now looking at the troopers with a mix of fear and hatred. The interrogators were not going to play nice with her, but Michel just couldn't summon even a gram of pity for her right now.

CHAPTER 3 – BACKLASH

18:58 (Universal Time)

Monday, July 16, 2317

Jovian Governorate offices, Callisto Prime

Callisto (8th moon of Jupiter)

Jovian System



Janet Robeson, a solidly-built woman of English descent in her late fifties, had gained a reputation as a resolute, no-nonsense politician and administrator and had recently been reelected to a second term as governor of the Jovian System, collecting a comfortable majority of the votes in the process. Her decisiveness during the war against the Earth Federation had done a lot to contribute to her popularity and it seemed that this moment was going to be another occasion where her decisiveness would come in handy. Sitting at the big conference table with five other top leaders of the Spacers League and with the local representative of the Northern Alliance of Earth, she saluted with a nod of her head Charles Watts, the governor of Mars, as the 62 year-old widower entered the conference room at a hurried pace.

“Welcome to Callisto Prime, Governor Watts. I am sorry that you had to do such a trip on short notice.”

“No need to be sorry, Governor Robeson. This certainly qualifies as an emergency.”

“Indeed! Have you met already Mister Toru Tomonaga, the new CEO of the Ceres Consortium?”

“I haven’t had the pleasure yet.” Replied Watts, who then shook hands with the tough-looking Japanese man designated by Robeson. “So, Mister Suzuki has finally retired as CEO of your consortium?”

Tomonaga, who sported a bald head and a short, carefully trimmed beard, nodded his head while half smiling.

“Let’s say that his board of directors didn’t give him much choice. The slavish way he led the consortium during the Terran occupation of Ceres, using his pacifist convictions as an excuse to do nothing while the ISF goons of Zembelo basically looted

the place, totally discredited him in the eyes of our citizens. By the way, I would like to present to you my condolences for the death of your wife during the Terran occupation of Mars.”

“Thank you, Mister Tomonaga.” Said soberly Watts as he remembered how his wife had been jailed, tortured and then executed by the Terran Internal Security Forces troopers that had taken Ares City at the start of the war between the now defunct Terran Federation and the Spacers League. He then took the seat reserved for him at the table and looked at Nadia Suslov, the young and fiery CEO of the Sverdlovsk Group, which controlled the Hygiea asteroid, along with a goodly number of asteroid mining sites in the Main Asteroid Belt. The 45 year-old blonde, who wore her long hair in old-fashioned braids, seemed quite worked up, something Watts could understand. The ZERO-G NIRVANA space brothel, which belonged to the Sverdlovsk Group, was a major source of revenue for Suslov’s corporation, as well as being one of the main entertainment spots in the Asteroid Belt. There was of course the matter of the 5,000 or so persons who would have died if not for the quick intervention of the A.M.S. KOSTROMA.

“What do we know about those terrorists, Miss Suslov?”

“There were five of them, all African citizens. Two of them were captured alive, one of them seriously wounded. Our interrogators were able to get a few useful information from the woman who was captured intact. They were on a suicide mission to ram the ZERO-G NIRVANA asteroid and were sent by the African Union’s secret services. The space brothel was chosen as a target because it had no effective defenses against such a ramming attack and because it symbolized for the African Union the supposed decadence and extravagant waste of us Spacers. The information given by that woman fortunately allowed us to thwart in time a second suicide team that planned to hijack another cargo ship and ram it into Vesta, where our battle station MJOLNIR was built.”

Watts nodded in understanding at that: the battle station MJOLNIR, in effect a converted asteroid, had been a decisive factor in the past war, destroying the orbital defense stations of the ISF around Earth. It was also responsible for destroying the city of Lagos with a guided asteroid strike that was targeting a secret poison gas factory hidden near Lagos. The resulting multi-megaton impact had killed over thirty million people, but there had been precious few alternatives to that in order to prevent millions of Spacers from being killed by nerve gas attacks against their enclosed space installations. Watts had the good taste of not asking how Suslov’s interrogators had extracted such information

from the captured female terrorist. The Sverdlovsk Group was widely known to be rather ruthless when it came to its security.

“So, now we are assembled here to decide what to do about these acts of aggression against us by the African Union.”

“Correct!” Said Janet Robeson. “We have already implemented new, tighter space traffic control regulations in order to prevent more such ramming attacks. Our armed ships are also on heightened alert and all the citizens of the Southern Federation, to which the African Union belongs, traveling in space will be severely controlled and searched for weapons.”

“Those are only defensive measures, Governor Robeson.” Objected at once Nadia Suslov. “What about taking the African Union to account for their acts? I am certainly not ready to let those bastards go scot free after they attacked us. The African Union in particular should be made to understand that any act of aggression against us will have a price attached to it.”

Karl Langemann, the square-jawed CEO of the Vesta Consortium, nodded in agreement at that and spoke with a firm voice.

“I agree with Nadia: staying passive would send the wrong message to those thugs. I thus propose an orbital strike by the battle station MJOLNIR on a selected target in African Union territory, preferably a military or political target.”

That clearly made uncomfortable Juan Perez, the governor of the Outer System, which included Saturn, Uranus, Neptune and Pluto.

“I hope that we could avoid hitting a major population center this time. I still feel remorse for the Lagos strike.”

“That strike was unfortunately unavoidable.” Pronounced Toru Tomonaga, his face impassive. “We however have to send an unmistakable message to President Mobutu of the African Union. If we could select an appropriate target, then I am in favor of an asteroid strike.”

They were all silent for a moment, thinking about options, until Charles Watts spoke up.

“I may have an idea about what to target. I know that President Mobutu, along with other major members and friends of his government, has his private residence on a small island near Zanzibar, off the coast of Tanzania in the Indian Ocean. That island has in fact been turned into a luxury resort island for the African elite and all those who became rich through corruption and illicit trades. It is said to be heavily guarded and defended, but it would have no effective defenses against an asteroid strike.”

Nadia Suslov grinned at once, obviously liking the idea.

“An excellent idea! If we could catch the bastard when he is home, the better.”
Heads bobbed in agreement around the table, prompting Janet Robeson in speaking.

“This effectively sounds like a nice option. If no one has objections, we will vote on it.”

That vote was quickly done, resulting in a unanimous decision to proceed with the said strike on the resort island of President Mobutu. As the others shook hands in celebration, Janet Robeson raised another subject before they started dispersing.

“Ladies and gentlemen, I would like to make an announcement. In agreement with Governor Perez, I have decided to launch the Eris Expedition as originally planned. The KOSTROMA is presently in Callisto orbit and launching this expedition will be an excellent way to show to the Southern Federation that we have not been adversely affected by their terrorist acts. The KOSTROMA will thus depart for Eris on August 2, in less than three weeks.”

13:15 (Universal Time)

Tuesday, July 17, 2317

Spacers League' space battle station MJOLNIR

In low Earth orbit

“Captain, we are receiving an encrypted message from Callisto Prime, priority IMMEDIATE.”

Navy Captain Sergei Koslov, who had been looking at the 3D sensors fusion sphere of his bridge, hurried at once to the communications officer's station to look over his shoulder at his viewing screen. Koslov, a native of Hygiea, was a veteran security officer and ship commander of the Sverdlovsk Group and had been chosen to command the MJOLNIR as much for his strong self-control and mental equilibrium as for his past experience as a Spacer ship captain. In truth, such qualities were a must where the command of a space weapon system capable of eradicating whole cities was concerned. Still, the nature of the message now visible on the screen made him both stiffen and frown.

“It's a strike order! But why delay it until next Saturday?”

Reading quickly the whole message, along with the communications officer, Koslov then understood the reason for the delay.

“The League’s Council wants as much as possible to catch President Mobutu of the African Union when he will be spending his weekend on his resort island near Zanzibar, off the eastern coast of Africa. Well, that certainly makes sense to me. No point in destroying his fancy palace if the corrupt bastard is not home. The delay will actually allow us to modify very progressively our orbit, so that our next move does not become too obvious. Acknowledge the message and send it to the strike command station, Lieutenant, so that I could examine in detail the target area. Commander Holtz, join me at the strike command station.”

“Aye, Captain!” Replied his weapons officer, Greta Holtz, before walking quickly to the large holographic display table that served to plan and command the launches of the thermonuclear rocket-powered asteroids that were the primary armament of the MJOLNIR. Each of these asteroids, varying in shape and size but all being at least a hundred meters in diameter and being made of iron-nickel cores, could strike a planetary target with the equivalent of dozens of megatons of kinetic energy. A bit over half of the asteroid missiles of the MJOLNIR had been expended during the war against the Zembelo regime two years ago, but the space battle station still had enough firepower to devastate a whole continent if need be, on top of having ultra high power laser batteries able to slice in two any spaceship. Koslov didn’t relish the need to use such firepower, but the acts of terrorism sponsored by the African Union made a counterstrike necessary. Punching in the coordinates of the target provided by the Spacers League’s headquarters on Callisto, Koslov examined for a second the holographic map now showing on the display table before letting out an incredulous remark.

“This must be a joke!”

Greta Holtz, as surprised as Koslov, smiled at the irony of the name of their target.

“Actually, I find this very appropriate, Captain.”

“Mafia Island? A fine name indeed for the resort island of a corrupt dictator like Mobutu.”

Koslov then examined in detail the representation of the island, lying about 25 kilometers off the coast of Tanzania and situated 115 kilometers south-southeast of Dar Es Salaam. It was shaped like an arrow point and measured about fifty by seventeen kilometers at its largest. The whole island was quite flat and was only a few meters above the level of

the sea, with most of the buildings on the island being on the high ground in the southern part.

“One asteroid missile should easily destroy everything on this island. Greta, start studying the geology of this island and of the nearby continental coast with your officers. I want simulation runs done to predict the effects of our strike. Use a maximum missile velocity scenario: I want as much as possible of this island to disappear. If we are to pass a message to these thugs of the African Union and of the Southern Federation, then we might as well make it a spectacular one.”

“Understood, Captain.”

23:29 (Universal Time)

Friday, July 20, 2317

Presidential air limousine of Jonas Mobutu

On approach to Mafia Island

President Jonas Mobutu, leader of the African Union and Vice-President of the Southern Federation, was not in a very good mood as his air limousine was coming in sight of his resort island palace, despite the fact that he had three of his mistresses with him, along with two of his bodyguards. There was still no news about the two strike teams he had sent more than three weeks ago to hit Spacers installations. The lack of news alone would indicate that their missions had ended in failure, but what was strange was the lack of official reaction from the Spacers themselves, who seemed to have heavily censored anything concerning those African strike teams. That had left Mobutu to wonder and worry about possible reprisal measures from the Spacers League but, since all the space surveillance radars of the Southern Federation had been destroyed in the past war, he had no way to know about the movement of Spacers' spaceships. The rundown state of the Southern Federation, allied with its chronic mismanagement of resources and its bureaucratic incompetence and corruption, had prevented the rebuilding of those space surveillance radars, even though Mobutu understood well their importance and had pushed for the funds and resources for them to be made available. Unfortunately, the Northern Alliance's ban on the exportation of high technology items to the Southern Federation, along with the barely hidden suspicion and antipathy shown by most of the so-called neutral states on Earth, had made impossible the acquisition of key radar and electronic components that could not be produced these days within the

Southern Federation. Mobutu was far from being a stupid man and the full extent of the decrepit state of the economy and industries of his own African Union was becoming more evident to him every day, showing him the near impossibility of his task in making his continent great again. The idea of retiring from power and disappearing with his accumulated fortune and mistresses touched his mind as he saw the lights of his resort palace ahead in the night.

The air limousine landed at the vertical on the landing pad of the palace six minutes later, with no less than ten armed soldiers visible on duty around the pad perimeter. The four supersonic atmospheric interceptors that had escorted it to Mafia Island then turned back to return to their base. While the majority of the poorly educated masses in Africa still supported Mobutu and believed the propaganda spewed by his administration that said that the ills of Africa were mostly due to the economic blockade by the Northern Alliance and the Spacers League, many in the steadily shrinking middle to wealthy class blamed him for the continent's decline. There had already been a number of assassination attempts against him, something that had prompted him to spend more and more of his time on this heavily guarded island. Many of his closest collaborators had done the same and also spent most of their weekends on Mafia Island, away from the squalor, overcrowding and pollution of most African cities. Four soldiers came to meet the air limousine, saluting at attention as Mobutu stepped out of the luxury vehicle. Surrounded by his soldiers and bodyguards, the dictator then walked into his palace, followed by his mistresses and by servants carrying his luggage.

A reconnaissance satellite tracked and filmed the arrival of the limousine and its escort of four atmospheric interceptors in Mafia Island, relaying its sensors and visual feeds to the MJOLNIR. The presence of the interceptors was enough to designate the limousine as Mobutu's vehicle to Sergei Koslov, who then called Greta Holtz to join him at the strike command station. When it became evident that Mobutu was in his palace for the night, Koslov looked at Holtz and nodded his head, then took out his command key, suspended to his neck by a long chain. Holtz did the same with her own command key and waited for Koslov to punch in the command code sent by the headquarters on Callisto. Koslov then introduced his command key in the command console of the station and punched in his personal command code. Greta Holtz next did the same on her own console, which was widely separated from Koslov's console. Such a triple

command code system made an unauthorized asteroid missile launch nearly impossible, a necessity in view of the terrifying destructive power of the main armament of the MJOLNIR. On a count of three, Koslov and Holtz turned their keys simultaneously, activating the fire control system of their asteroid missiles. Holtz next punched in the exact location and parameters of the target, plus the wanted terminal velocity of their asteroid missile, closely watched and double-checked by Koslov. A large red light on the command panel started blinking, indicating that the designated missile was now ready to be launched. Koslov hesitated for a fraction of a second before pushing the launch button: the small tsunami that the missile strike would cause was going to kill some innocent inhabitants on the nearby continental coast, even though the number should be small. A muffled roar and vibration then told them that the missile was on its way.

01:03 (Universal Time)

Saturday, July 21, 2317

Presidential palace, Mafia Island

Indian Ocean

Unable to find sleep, Jonas Mobutu gently pushed away the arm of one of his mistresses, who was asleep besides him, then slowly stepped out of bed and put his robe and slippers on before walking out on the balcony of his bedroom. There, he contemplated the sea and nearby continental coast, now a dark line on the horizon. After a few minutes of breathing the salty air brought by the wind, he raised his head to look at the stars in the night sky. A small but intense point of violet light quickly attracted his eyes: it was apparently unmoving and was right above him in the sky. Intrigued, Mobutu kept watching it and soon realized that it was steadily growing, now being the size of a lit match. He however could hear nothing but the wind and the muffled voices of two of his guards. His curiosity gradually turned to worry as the violet point of light kept growing in the sky while apparently falling towards the island and its palace. The truth then struck the African dictator and his mouth opened in fear and horror as he watched death coming down at him. He had seen the huge crater and the surrounding devastation caused by the Spacers' asteroid strike against the Lagos area two years ago and now understood that a similar asteroid missile was heading his way. There was however absolutely nothing he could do now to escape his fate.

Coming down at hypersonic speed while surrounded by a violet halo of high level plasma energy from the friction with the atmosphere and followed by a long tail of fire, the four million ton asteroid missile slammed down on Mafia Island a mere two kilometers away from Mobutu's palace, its kinetic energy and halo of super hot plasma making it dig deep into the ground before the impact vaporized it, along with the surrounding rock. The titanic explosion caused by the impact dug a crater 3,800 meters in diameter and 600 meters in depth, while projecting in the air tens of millions of tons of molten earth and rock. The fireball and blast wave, allied with the powerful seismic tremor that went through the crust and surrounding waters, completely razed and incinerated everything on Mafia Island. Fortunately for the inhabitants living along the nearby coast of Tanzania, the depth to which the asteroid penetrated before exploding into hot plasma substantially reduced the lethal range of both the blast wave and of the thermal radiations from the explosion. Most of the coastal houses on the continent to the west of Mafia Island were still blown away and their occupants either killed or severely wounded. What was left along the coast was then swept by a tsunami wave coming from the island, most of which had by now crumpled under the waves. In Dar Es Salaam, 115 kilometers away, window panes shattered when the blast wave rolled over the city, wounding thousands of people, while the gigantic flash from the asteroid's impact lit up the night sky and was seen over a thousand kilometers away. Hundreds of ships and boats of all types were sunk either at sea or in port by the traveling tsunami wave, while heat from the flash of the explosion could be felt on the skin well over 150 kilometers from Mafia Island. The survivors along the coast, as well as the witnesses further inland, then saw a gigantic fireball about eight kilometers in diameter rise in the sky, while a mighty ear-splitting roar could be heard as the sound of the explosion traveled outward at the speed of sound. By the time one hour had passed, over half of Africa was plunged into panic and chaos.

CHAPTER 4 – DEPARTURE

15:39 (Universal Time)

Thursday, August 2, 2317

Docking Station 5, Callisto Space Terminal

Callisto (8th moon of Jupiter)

Jovian System



Tina Forster was in attendance with Natalia Vasilyeva, the ship's chief hostess, and Bill Morrison, the head of security of the KOSTROMA, at the port access airlock when a long convoy of ground cars and buses arrived at the ship's reception point. From having followed on the public viewing video channel of the Callisto Space Terminal the ceremony given in their honor, Tina knew that the convoy carried the crewmembers of Station Eris, the prefabricated scientific base to be carried to the dwarf planet Eris by the KOSTROMA. Also coming along was a small army of astronomers, geophysicist, planetologists and space habitat engineers and technicians, plus family members of the Station Eris' crew and working passengers, who would travel to Eris but would return with the ship to Callisto. There were even 32 paying passengers who were either rich enough to pay by themselves for such a long space trip or were sponsored by associations or corporate entities. Altogether, she expected a total of 789 passengers for this expedition, nearly three times the KOSTROMA's normal crew of 280 persons, to which one had to add the more than 400 family members of her crew who lived permanently aboard her ship, but still much less than the maximum passenger capacity of her ship. To provide for all those extra people for over a year, thousands of tons of supplies of various types, including foodstuff, were being loaded aboard via the aft port cargo access airlock. As for the prefabricated module elements of Station Eris, they were already hooked up to the cargo module clamps along the flanks and the bottom surface of her giant ship.

As the lead buses and ground cars came to a halt near her group, Tina smiled and nodded to Natalia, Bill and the ten employees from the JUPITER Sex Club who would help guide the newcomers to their quarters and then give them a quick tour of the

ship's facilities. The twelve men and women then each boarded a bus, while Tina went to the lead ground car, which carried Oleg Ulianov and Mireille Cartier, respectively the chief planetologist and chief astronomer of Station Eris. Taking place in the front passenger seat, she turned towards the rear and smiled to the two graying scientists, whom she had met already many times during the last couple of weeks.

"Welcome to the KOSTROMA, Doctor Ulianov and Doctor Cartier. I will personally guide you to your quarters. Once you are settled in, I would be happy to invite you to my table for supper."

"And we will be happy to accept your invitation, Captain." Replied Ulianov, who was officially in charge of Station Eris. "When are we due exactly to depart for Eris?"

"If there are no hiccups, we should undock at nine o'clock this evening. Maneuvering and moving to a safe distance before lighting up our main drive will take another hour or so afterwards."

Mireille Cartier was next to speak from her rear seat, bending forward to gently press Tina's right hand.

"I must again thank you for offering to carry the family members of our station's crew at no cost, Captain Forster. To have our spouses and younger children aboard during the outgoing trip will do a lot to keep up the morale of our people."

"It was truly my pleasure, Doctor Cartier." Replied Tina while smiling to the French planetologist. "To be truthful, since the Spacers League's Administration was already funding this expedition and your trip, and since I have hundreds of suites suitable for families, it didn't really cost me anything extra to invite the families of your people aboard, apart from the cost of the food for them. Even part of that extra cost is being covered by the Jovian Administration, thanks to a deal between me and Governor Robeson. Since my ship possesses full medical and educational facilities to accommodate families with children, along with commercial and entertainment establishments, why not use them to the fullest anyway?"

"Still, your offer was very generous and was most appreciated, Captain."

"Please, simply call me 'Tina' instead of 'Captain', Doctor."

"Only if you call me 'Mireille' in return."

"Deal!"

As they spoke, the convoy started rolling, guided by a ship's electric cart driven by a crewmember. Delivering the nearly 800 newcomers to the Hangar Deck, on Level

7, and bringing them and their luggage to their suites on the Bow Gravity Sail Deck's apartment ring, 75 meters up, took less than forty minutes. Once that was done, Tina excused herself with Ulianov and Cartier and went to see Denise Lonsdale, the ship's cargo master. She found her with Winnie Zambela, the ship's assistant purser, as they were supervising the storing of countless crates and kegs in the wine and liquors cellar of the Main Cafeteria Deck, on Level 10. Tina's eyes widened when she saw the product descriptions on the crates and kegs and the amount involved.

"My god! Are we leaving for a long range scientific expedition or for a year-long beer and wine festival?"

The black assistant purser gave her an amused smile in response.

"It may seem a lot of alcohol to you, Tina, but we will be in space and away from everything else for over a year...if we don't hit any snag. Also, contrary to our common average passenger, those scientists, engineers and technicians on the whole earn an average salary that is much higher than that of middle class passengers. They thus have a lot more money available to burn during their trip, which will by itself be much longer than usual for us...and will feel very long for them. I am actually wondering if we will have enough to follow up with the demand for the whole trip. The various owners of our commercial concessions, and especially those of restaurants, have made the same reasoning and are taking delivery of extra supplies and merchandises to be sold to our passengers during our trip to Eris. You should see the amount of bottled or canned sauces, frozen specialty meats and fish, marinades and vegetable oil I have seen stored away since yesterday. Even Madam Lee has hired some extra dancers, 'to provide a greater variety to her customers' as she said to me."

"Uh, I see." Said Tina, still impressed by the long file of kegs and crates. "Let's hope that we won't end up stuck with too much leftover stocks at the end of our mission. These crates and kegs represent millions of credits in alcohol products."

"Bah, don't worry about that, Tina: those space habitat construction specialists will drink our stores dry by themselves, mark my words."

Tina nodded her head before looking at Denise Lonsdale.

"How is the loading of our supplies and equipment for the trip going, Denise?"

"There are only a few dozen supply containers left to bring inside the ship, Tina. Most of the work left to be done involves distributing and storing supplies in their correct locations around the ship. Everything will be finished well before our departure time."

"Excellent! What would I do without you?"

“Panic?” Replied the cargo master, grinning. That made Tina pull out her tongue at her before leaving the duo.

21:01 (Universal Time)

Bridge of the A.M.S. KOSTROMA

Docked to the Callisto Space Terminal

“All docking clamps are retracted. Our access points are closed and secured.”

“Callisto Space Control has given us permission to undock at our convenience.”

“Very well! Frida, take us away on gravity sail power.”

“Aye, Captain! Pulling out now.”

The giant cargo ship, measuring a bit over 1,700 meters from end to end and weighing close to eighteen million tons with its present cargo and fuel, started pulling away sideways from the Callisto orbital terminal with apparent majestic slowness, even though it was actually moving away at an acceleration of three meters per second. All the other ships and craft nearby, along with the space terminal itself, were blinking their navigation lights continuously as a salute for the departure of the KOSTROMA on its historic mission. Tina Forster, sitting in her command chair on her bridge, felt immense pride on watching this on the viewing screens. She however didn't let that pride blind her to the risks and responsibilities of this mission. She was now in charge of over 1,500 souls engaged in a year-long return trip, a trip that would bring them farther from the Sun than any other humans had gone before.

Fifty minutes later, with her ship now far enough from the orbital space terminal and from other ships, Tina told Dana Durning, her chief navigator and unofficial executive officer, to pivot the ship and line it up on the calculated heading for Eris. That heading had been much less simple to calculate than a neophyte would have thought just from looking at a space chart. Even though Eris was at one of its closest point to the Sun in its 557 year-long orbital period and was only 50.1 Astronomical Units from the Sun at the moment, a bit further out than Pluto, it was now moving away along an extended hyperbole with an inclination of 44 degrees to the Solar System's orbital plane. This meant that, on top of accelerating to the orbital speed of Eris to rise towards it, the KOSTROMA would also have to add a significant velocity vector at a right angle, in order to push its trajectory to a 44 degree inclination. Any lesser ship carrying the same mass

of cargo as the KOSTROMA was right now would have had barely enough fuel to get to Eris, orbit it for a while and then return on a slow trajectory that would take over four years. In contrast, thanks to its high efficiency fusion engines and huge fuel tanks, the KOSTROMA was going to be able to do the return trip in less than six months. With its flight plan in automated mode and with all the parameters double-checked and all systems showing nominal, Tina spoke six words in a calm voice to her pilot.

“Light up the drive, half power!”

In the black space around the Callisto orbital space terminal, a searing point of white light suddenly appeared, quickly turning into a long, pencil-thin white flame. That long flame gradually accelerated away towards outer space, decreasing in size and finally disappearing from the sight of the viewers on the station after a minute or so.

CHAPTER 5 – SPACE ROUTINE

06:45 (Universal Time)

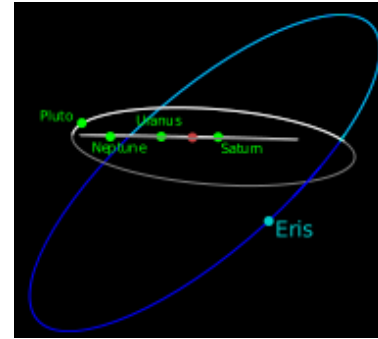
Saturday, August 11, 2317

Apartment 20282

Bow Gravity Sail Deck's upper ring, Level 19

AMS KOSTROMA

Space beyond Pluto, 41 Astronomical Units away from the Sun



Priya Mistry had been aboard the A.M.S. KOSTROMA as a crewmember for less than two months by now but she already positively loved her job as an apprentice hydroponics technician. Apart from the truly fantastic living conditions she and her family had found on the KOSTROMA, which contrasted starkly with their impoverished past life in polluted, overpopulated India, she was able to study part-time in the evening to complete her diploma in hydroponics techniques. To know that her family now had a decent life as well, with her father working as a forklift operator and her mother being employed as an assistant cook in the kitchens of the ship, also contributed to her happiness. Having awakened half a hour ago, Priya, a tall and thin nineteen year old brunette with light beige skin, left her apartment on the Bow Gravity Sail Deck outer ring to go to the crew cafeteria, dressed in a blue ship's work coverall. Using one of the four overhead observation galleries linking the outer ring with the ship's core section, Priya looked alternatively left and right as she walked along the 230 meter-long gallery, admiring the temperate lowland forest and boreal forest ecosystems visible from her gallery, each covering over seven hectares. Two more similar forest ecosystems were situated on the other side of the central core, with the rear balconies of the apartments on the outer ring overlooking the forests. Such an arrangement, unique to the KOSTROMA, helped greatly make life truly agreeable on the ship for both the crew and passengers. Another particularity unique to the KOSTROMA was its extensive hydroponic gardens, fish farms and animal farms, which made it mostly self-sufficient in food and even produced sizeable surplus of produces highly sought by Spacer communities, surplus whose sale helped inflate the business profits of the ship. As Captain Tina Foster had rightly said in the past, the KOSTROMA was as much a

traveling space community as a giant cargo ship and auxiliary warship. Priya was truly proud to work on such a ship.

Passing the large armored doors that gave access to the core section, Priya walked to the crew cafeteria and entered it, finding it already alive with other crewmembers and their families. Making her way to the service counter and grabbing a food tray and utensils, she slowly reviewed what was on the menu. Since the ship had to operate on a continuous basis and thus employed multiple work shifts, the cafeteria always served items suitable for either breakfast, lunch and dinner, and this at all times of the day and night. Things were a bit different in the dining rooms serving the passengers of the ship, with the kitchens there following more regular meal hours. Priya, accustomed to a mostly vegetarian diet in India, had found the menus served on the KOSTROMA quite to her liking. She had learned many things about Spacers since her arrival on board, one being that Spacers in general tended to eat less meat and more vegetables and fish than the average Earth citizen. That was mostly due to the economics of food production in space installations, since animals raised for their meat monopolized much more resources and volumes than for growing plants in hydroponic gardens or growing fish in ponds. There was still meat being produced on the KOSTROMA, with waste products from gardens and fish ponds used to feed the animals, but the emphasis had been deliberately put on dairy and poultry production, in order to provide a balanced menu to the occupants of the ship. As a result, the KOSTROMA was self-sufficient in dairy products like milk, cream and cheese and also produced enough fresh eggs to fill the breakfast trays of its crew and passengers. Priya, like most of the other crewmembers lined up along the service counter, profited from that and took two eggs sunny side up with her slices of multiple grain toasts, then went to paste some strawberry jam, which the ship produced in quantity, on her toasts, completing her breakfast with a glass of fresh apple juice and a cup of tea.

Seeing her supervisor from the hydroponics department, Marco Rizzuto, eating alone at a table, Priya went to him and smiled down to him, her food tray in her hands.

“Good morning, Marco! Do you mind if I eat breakfast with you?”

“Please! I would be happy to.” Replied Rizzuto, smiling back. While married, with his wife and two young children also living on the KOSTROMA, he did find Priya

quite attractive and appreciated her intelligence and eagerness to learn. Priya quickly sat opposite him and asked a question as she started eating her food.

“What do you have lined up for me to do today, Marco?”

“Our team is due to go inspect how our coffee plants and tea bushes are doing, to make sure that there are no molds or parasites present. We will also harvest the beans and tea leaves that are ready for the picking. I believe that you are well acquainted already with tea production, Priya?”

“It was indeed a staple product of my old region in India. We cultivated the Darjeeling variety in hydroponic gardens, since droughts too often interfered with the natural growth of tea plants in the open.”

“Excellent! You will then lead the pickers assigned to the Darjeeling tea production area on Deck 016. They are due to show up at one this afternoon, so you will have ample time this morning to inspect the plants first.”

“You can count on me, Marco.” Replied Priya. Since there were nowhere near enough hydroponics technicians present on the ship to do all the picking and harvesting, Captain Forster had arranged for idle family members of the crew to be able to volunteer as pickers on times of their choosing. Since the various crops on the KOSTROMA were growing according to a carefully calculated production calendar, the various harvests were staggered along the whole year, allowing a comparatively small crew of pickers to provide sufficient manpower for continuous harvesting. In return, those family members benefited free from all the services offered on the ship, a mutually satisfying arrangement.

Eating their breakfast quickly, both Marco and Priya then brought their used trays and utensils to the dishwashing area, where robots picked them up and placed them in dishwashing machines. Robots were another thing that Priya had gotten accustomed to on the KOSTROMA: they were to be seen everywhere, taking care of the routine janitorial duties and maintenance work on the ship. There were in fact a lot more working robots aboard than there were crewmembers and were an essential part of the smooth working of the ship. Leaving the crew cafeteria, the duo made its way to the food production office, one deck up, where they met with the other hydroponics technicians of their shift and discussed for a few minutes the work to be done today before splitting up to go to their various assignments. On her part, Priya took an elevator cabin and went down to Deck 016, one of the 170 levels of the longitudinal spine tube of

the ship dedicated to food production. Each level comprised a central core section containing processing and packaging facilities, surrounded by an outer section with a diameter of 160 meters at its armored steel outer hull, giving a food production floor surface of 1.2 hectare per level. That surface was further multiplied if hydroponic basins were stacked on top of each other, depending on the size of the plants grown. In the case of multi-stacked basins, a sophisticated carousel system controlled by computer allowed easy access on demand to each basin. The food production facilities of the KOSTROMA, without equal among the ships roaming the Solar System, actually produced 82 different types of vegetables, fruits and spices, over 2.2 million liters per year of fresh milk, twenty types of fish and shellfish and five types of meat, plus an average of more than 4,000 fresh eggs per day. This was in fact one of the main factors that had designated the KOSTROMA as the best ship to carry the Eris Expedition. Priya could only contrast this with bitterness to the disaster that local food production had become in her old town in India, with pollution, lack of water and mismanagement resulting in not enough food being produced even for local consumption. Looking first around Deck 016 and its gleaming stainless steel and acrylic hydroponic basins, with their UV lamps illuminating the tens of thousands of tea plants inside them, Priya then started a methodical visual inspection of the plants, noting which plants were ready for harvesting and checking for molds or parasites as she went.

Taking a break for lunch at a bit past noon, ship time, Priya then came back on Deck 016 in time to greet the nine volunteers pickers that she was expecting. Briefing them on what had to be done and showing them examples of plants ready to have their leaves picked, along with how to pick the said leaves without damaging the plants, Priya then supervised their work, hurrying to them if questions arose. The picking work took a bit less than four hours and produced a total of close to twenty kilos of tea leaves, which were then brought to the processing section of the deck. Thanking her pickers first and sending them on their way, Priya then reported back to Marco Rizzuto, who declared her duty shift over. From there, Priya returned to her apartment to shower and change before having supper.

As she toweled herself dry after taking a shower, Priya looked at herself in the mirror of her bathroom. She was having this urge to have fun tonight, to do something outside of the routine she had kept since arriving on the KOSTROMA with her family and

to burn some of the money she had earned. Up to now, she had spent much of her free time with her parents and siblings, having suppers together and discussing their new lives on the ship and their various experiences since their departure from Earth. Priya was not what one would call a teenage rebel and loved and respected her parents, who in turn had always returned her love and had proved to be tolerant and understanding. The society she came from in India was still a conservative and puritanical one, especially where the poorer classes were concerned, and teenagers there were expected to be close to their families and to obey their parents. Girls in particular were requested to be modest, chaste and to avoid relationships that their parents would not approve of in advance. Well, Priya had now been exposed for the better part of two months to a new and very different society that had proved to be tolerant, egalitarian and caring, a society she wanted to join fully. Priya was tempted for a short moment to go tell her parents before going out tonight but decided against it. It was high time that she lived the way she felt like, even though she would never consciously do anything to hurt her parents or bring shame to them. There were anyway many ways for her on the KOSTROMA to go have fun in harmless ways. She thus chose the sexiest outfit she owned, a combination of silk blouse and short skirt with medium-height heel shoes, for her evening and carefully brushed her hair, applying some makeup and perfume. She put on a nice but rather inexpensive set of silver jewels as a finishing touch and buckled a wide, decorated belt supporting a purse before walking out of her apartment.

Priya set foot on the Main Promenade Deck, on Level 9, twelve minutes later, coming out of one of the elevator shafts of the central rotunda of the deck. She then started walking along the eastern hallway towards the outer ring of restaurants and commercial establishments of the Promenade. It was now supper time and a few hundred people were also on the Promenade Deck, which was the center of the social life on the ship, both for its crew and their families and for the passengers. There were many young children visible as well, going to eat or shop with their parents. Their presence in fact did a lot to make life in space look more normal to Priya. Once she arrived at the junction of the hallway and of the outer ring of the Promenade, with its five meter-wide circular pedestrian track bordered on both sides by plants, flowers and bushes, the large, thick viewing windows along the outer steel wall reminded Priya that she was indeed in space. The Sun was visible in the darkness of space as a bright but small ball barely bigger than a marble, while the stars and nebulas of the galactic plane

formed a majestic background. The high ceiling of the Promenade, ten meters above the floor, helped to enhance its impression of vastness, while the inner side of the track actually bordered an inner ring of patios and terraces five meter wide. Turning right and starting to walk at a moderate pace along the outer pedestrian track, Priya eyed methodically the two-storey inner façade of stores and restaurants, watching as well the passersby, shoppers and patrons in front of the various establishments. The first of those establishments was actually a wide and deep children's playground, in which dozens of enthusiastic and screaming little children played in the various modules. An overhead net close to the ceiling, where the artificial gravity field from the floor generators could not be felt, was particularly popular with the children, who launched themselves from a side gallery that had artificial gravity, to float in zero-g to the opposite gallery while tumbling and flipping to their content. Priya smiled on watching them for a moment: she had her first experience of zero gravity up there, the day after arriving on the ship. Her younger siblings had also gone crazy up there and it had taken all the authority of her parents to convince them to come down from there after half a hour.

Resuming her walk along the Promenade's pedestrian track, Priya passed in succession a convenience store, a liquor store, a children's clothing store, a toy store and a clothing store for women before arriving at the junction with the southern hallway leading to the central core. Continuing along the track, she passed in front of six more establishments, including the 'ASTEROIDS' electronic arcade parlor and crossed the junction with the western hallway, stopping in front of the terrace of the 'APEROSSIMO BAR-LOUNGE'. Deciding after a moment that she could come back to it after having supper, Priya continued walking, stopping again near the junction with the northern hallway, looking discreetly at the flashy advertising panels in the front of the 'JUPITER SEX CLUB'. Her parents, while liberal-minded by the standards of India, still would look crossly at her if they would see now the way she was looking at the advertising panels, with her eyes particularly attracted to the pictures of three very handsome and well built male dancers. Her heart started beating faster and she felt excitement mounting in her as she eyed in particular the picture of a dancer called simply 'Marcel', whose muscular body sported a tan skin not unlike her own skin. Getting close to that picture, Priya admired it for a good moment and took the decision to definitely come back to the sex club later in the evening.

She finally entered a nearby restaurant, a delicatessen called 'BEN'S PLACE'. While religion in India was by now mostly a thing of the past, old customs and also the dreadful local economic situation still made beef and porc products rare in India, especially in the rural areas where the old Hindu customs were still practiced by a few. A coworker on the KOSTROMA had told her how much he loved a juicy, spicy smoked meat sandwich, making her curious about that specialty. Thinking that her mother would probably look down with disapproval at the menu of such a place, Priya sat at one of the small tables of the delicatessen, which seemed quite popular with many people on the KOSTROMA. A male waiter promptly came to her with a menu and took her order for a glass of mineral water before leaving her alone as she looked at the menu. Since she was going to go next to a club and have drinks there and since her capacity for absorbing alcohol was strictly limited, Priya didn't want to consume beer or wine yet. She finally ordered a smoked meat sandwich accompanied by marinated cucumbers and French fries when the waiter returned with her mineral water. The man returned a mere three minutes later with her plate, surprising her with the speed of the service. Discreetly smelling first her sandwich, Priya had to say that the thick pile of sliced meat in it had a tantalizing smell that she never had experienced before. Grabbing with both hands her sandwich and lifting it to her mouth, she took a first bite in it, having to open her mouth wide to be able to take her bite. The spicy taste of the tender, juicy smoked meat overwhelmed nearly at once her tasting buds and made her close her eyes with delight as she savored her sandwich and as the meat melted in her mouth. She had to restraint herself and eat slowly in order not to devour her sandwich with indecent haste, alternating with bites at her cucumber and French fries. She was nearly tempted to order a second sandwich once she had finished her first one but reasoned herself that she was already quite full. Promising herself to come back often to this place once she was finished with her meal, Priya paid the waiter and walked out of the delicatessen, happy and satisfied.

Taking the nearby northern hallway to walk back towards the core section, Priya turned left once at the core rotunda and entered the 'MOONLIGHT DANCE CLUB'. Paying first the entrance fee and passing through the reception and vestibule area, she entered a large, high-ceiling room that measured a good 500 square meters in surface, most of it taken by a dance floor where over fifty customers were already shaking, twisting and shuffling to the rhythm of a loud music. Feeling excitement rising in her, the

Indian teenager looked around her at the tables and bar counter lining three sides of the dance floor. Apart from the fifty or so dancers, another thirty or so patrons were sipping drinks and conversing at the tables. As she was deciding which table or place at the bar to take, the music died down while the voice of the DJ came up on the speakers.

“Ladies and gentlemen, for the next tune, I will start to play some new music never heard before in this time. In fact, the following songs come from the distant past, from the late 20th and early 21st Century, and are part of a collection of old music records I was fortunate enough to find in New York City, gathering dust in an ancient basement. It took me a few weeks since then to cautiously extract and digitalize those old songs but now they are ready for public playing and I hope that you will like them. My first song from the past is by a group called ‘ABBA’ and is titled ‘DANCING QUEEN’. Enjoy!”

Priya was still standing in front of the bar counter, still digesting that announcement as the other patrons exchanged excited comments, when a catchy tune and young female singing voices started to play on the speakers, being unlike anything she had heard before. Despite its unfamiliar mix of instruments and slightly bizarre English words, the song quickly caught on Priya, who unconsciously started to move to the rhythm of the music. A young man sitting nearby at the bar counter got up from his high chair and promptly came to her, a charming smile on his face.

“Could I ask you for this dance, miss?”

“Why not? My name is Priya.”

“And my name is Alex.”

“Then let’s go dance, Alex!”

The two of them were promptly joined on the dance floor by seemingly all the other patrons, who were apparently anxious to dance to the new tune. While the music didn’t have the level of sophisticated sound mixing and synthesizing customary to 24th Century songs, it was still quite nice and catchy and the singers had truly first rate, sensuous voices. That song, along with the following one by a female singer called Victoria Duffield and titled ‘BREAK MY HEART’, proved to be truly good. After a third song, a slow tune titled ‘CAN’T FIGHT THIS FEELING’ by a group with the improbable name of ‘R.E.O. Speedwagon’, Priya agreed to go sit at the bar counter with her dance partner, who insisted on paying for her drink. Seeing her hesitate then, Alex smiled to her.

“You are not sure what to order?”

“Uh, it’s more like I don’t know much about cocktails.” Answered Priya, a bit embarrassed. “I have been on the KOSTROMA for less than two months and lived

before in a small town in India. My family was not wealthy and I didn't go out in fancy clubs or bars."

The young man, who appeared more and more handsome and nice to Priya as time went by, nodded his head in understanding.

"Then, let me choose something for you that you may like, if you don't mind."

When Priya didn't object, Alex shouted an order to the barman.

"BARMAN, TWO PINK JUPITERS, PLEASE!"

As the barman started preparing their drinks, Alex smiled again to Priya, who was taking the time to detail him: he was apparently athletic and fit, had short blond hair and gleaming gray eyes and had a really pleasant smile.

"The Pink Jupiter cocktail was invented to mimic the multiple bands of color of Jupiter. So, would you mind telling me a bit about you? Where are you working on this ship?"

"I am an apprentice hydroponics technician and no, I won't mind telling you about me, Alex. First though, where do you work?"

"Me? I am a member of the Eris Station crew and am a shuttle pilot."

Priya hid her slight disappointment on hearing that: in about six months, that nice young man was going to disappear from her life as quickly as he had entered it, to stay for two years on the farthest spot of the Solar System.

"Well, Alex, there isn't much to say about me, truly. I am from the city of Sehore, in the state of Madhya Pradesh in Central India. I was studying hydroponics techniques when my father lost his job after the plant he worked in closed. We were facing poverty and destitution when I was lucky to get a job offer from the KOSTROMA. Now, here I am, with my family also on this ship."

"I am happy to hear that you were able to find a job here, Priya. As for me, I was born on the Jovian moon Europa and am a Spacer through and through. My family is still on Europa. Ah, here are our cocktails!"

As they kept conversing at the bar while sipping on their drinks, more and more people entered the club, apparently attracted by excited calls from patrons who had been mesmerized by the songs from the past. The place was soon packed to capacity, to the delight of the club manager, who gave a big thumbs up to his DJ.

"Lester, you are a genius! These old songs are really great: they attract customers like flies to honey."

“They are actually a true musical treasure from the past, Greg. Would you mind if I offer the tunes that are not meant for dancing to the ship’s entertainment section and to Miss Manzini, of the APEROSSIMO?”

“Hey, you found and bought those old records, Lester. Technically, you could resell them or sell their user rights to anyone you like and there would be nothing I could say about it. Just make sure that you keep the best dance tunes for us.”

“Thanks, Greg!” Replied Lester Barnaby, pleased. He actually had digitalized thousands of songs and pieces of music, from dance tunes and meditation music to classical instrumental pieces, more than half of which would be of little use to the dancers of the MOONLIGHT CLUB. If there was something that Lester hated, it was to leave good music being unheard.

CHAPTER 6 – CLOSING IN

20:52 (Universal Time)

Monday, December 10, 2317

Bridge of AMS KOSTROMA

19 million kilometers (0.127 AU) from Eris



Tina Forster, sitting in her bridge command chair, eyed the display screen attached to her chair via a swivel arm, reading the latest sensors data on Eris. After four months of deep space travel, most of it spent coasting along their calculated trajectory, they were finally getting close to the dwarf planet, decelerating on gravity sail power while a small army of astronomers, astrophysicists and planetologists studied Eris via the long range telescopes and sensors of the ship. Already, the close observations had brought a few surprises, as well as many questions. Of nearly the same diameter than Pluto at 2,320 kilometers, Eris had also been known to be more massive, with a density of 2.52 compared to Pluto's 2.03. Astronomers had also known for three centuries that Eris was covered with methane ice and some nitrogen ice and that water ice was also present. It had one small, irregularly-shaped moon named Dysnomia, which measured from 100 to 250 kilometers and orbited around Eris in 15.77 days. That had until recently been the basic knowledge about Eris. Now, however, close visual and spectral studies had revealed a few new, intriguing points about the dwarf planet. For one thing, what appeared to be geysers of methane, nitrogen and water ice at multiple points of the surface had been detected by the telescopes of the KOSTROMA. Those geysers apparently helped keep the planet's surface smooth and highly reflective. There was also a total absence of surface outcropping of rocks, suggesting a deep ice crust over the whole of Eris. Those two points had made the scientists on the KOSTROMA wonder what was powering such geysers, despite Eris being bone-chilling cold, with a mean surface temperature of 42.5 degrees Kelvin, barely above the absolute zero. The biggest surprise had however been the detection of a magnetic field around Eris. Since only the presence of a molten metallic core could explain the existence of such a magnetic field, the planetologists and astrophysicists on the KOSTROMA were now deep in conjecture, with new theories being advanced nearly every day. Unfortunately, only a detailed study of Eris made with the help of surface measurements could settle for

good the many questions now floating around about the dwarf planet. In any case, it now seemed that the launching of the expedition had been fully justified.

Looking at her watch, Tina saw that Renée d'Argenteuil, the ship's second pilot, would be about to arrive to relieve her and take control of the bridge. The French woman effectively arrived two minutes later, wearing her usual ship coverall and ball cap.

"Good evening, Tina! Anything special happening?"

"Apart from new imagery of Eris being taken, nothing worthwhile, Renée. We are still coasting towards Eris and will arrive in orbit in two days. That's when the real work will start. Don't hesitate to wake me, though, if anything significant happens. I will be in my day cabin."

D'Argenteuil nodded in understanding: the Captain's day cabin was a small cabin just under the bridge complex that allowed Tina to rest and wash up while staying close to the bridge, allowing her to be available at very short notice during critical periods. Getting first a cup of hot coffee from the small relaxation lounge adjacent to the bridge, Renée then took place in the command chair and reviewed the latest data on Eris with intense curiosity.

16:44 (Universal Time)

Wednesday, December 12, 2317

Bridge of the A.M.S. KOSTROMA

In low polar orbit around Eris

"Our orbit is now circularized at an altitude of 430 kilometers over the poles, Tina."

"Very well, Frida. Shut down the gravity sails! Main generators to idle! Secure from maneuvering stations!"

Tina Forster next switched her intercom to ship-wide mode and spoke up in her microphone.

"To all aboard, this is the Captain! We are now in a stable polar orbit 430 kilometers above Eris. We have arrived at our destination."

The crewmembers on the bridge cheered loudly at that announcement and Tina was sure that the same was happening all over the ship at this moment. Letting a few

seconds pass to give a chance to the celebrating to die down, she then spoke again on the intercom.

“The scientific staff of the Eris Station, along with the heads of the Eris construction crew and of the ship’s astronomy and astrophysics departments, are to assemble in thirty minutes in the main conference room of the Bridge Deck, in order to discuss our work program. Captain out!”

Stepping out of her command chair with a sigh of relief, Tina had a last look at the picture of Eris that filled half of the viewing screen before heading towards the main conference room, situated on the same deck than the bridge complex. For any neophyte, Eris would appear to be only another large, icy moon like there were many in the Solar System. However, the observations made during the approach had already indicated that it was peculiar in many ways, on top of harboring a huge quantity of frozen methane that would be able to sustain the human needs for hydrocarbons for centuries to come. Grabbing first her laptop computer in her day cabin, Tina then walked to the main conference room, a large compartment able to sit up to twenty persons around its oval table, plus up to forty more persons on seats along the walls. When she arrived there, a few of her ship’s officers and scientists had already arrived, along with a couple of scientists from Eris Station. After another twenty minutes, the room was filled to near capacity, with a total of 56 persons present on top of Tina. Rising from her chair, she looked around while smiling to the others sitting at the table.

“Ladies and gentlemen, we have finally arrived at our destination. However, this marks only the beginning of our mission, which is to study in depth Eris and to establish a manned research station on its surface, or rather just below its surface ice. I will now ask Doctor Ulianov to resume for all of us what is known of Eris to date. Doctor?”

“Thank you, Captain!” Replied the planetologist and head of Eris Station before making a picture of Eris appear on a large wall viewing screen, with lines of data on one side. “As you all know by now, Eris had a few surprises in store for us as we were approaching it, not the least being the presence of a magnetic field around it. Another surprise were the multiples geysers spewing methane, nitrogen and water ice, which indicate some serious geothermal activity inside the dwarf planet. Finding clues and answers about those two mysteries will obviously be part of our priorities. Another priority will be the complete mapping of Eris, including in-depth seismic echo-sounding and a study of its crust’s composition. My opinion right now is, as already stated in our

mission brief, that we should wait until we better know Eris in depth before choosing a site for our research station and before putting it in place.”

“I agree with Doctor Ulianov.” Said Mireille Cartier, the head astronomer of Eris Station, sitting two chairs away from Tina. “Starting to establish our base before we know what Eris has in store for us would be foolish. I am thus afraid that your construction specialists will have some more free time on their hands, Mister Stennis.”

Jake Stennis, the big manager of the space habitat construction crew responsible for assembling and positioning the future research station, smiled and shrugged his shoulders.

“I don’t think that they will mind having more free time to spend at the Jupiter Sex Club, especially while being paid the double salary of deep space contracts, Doctor Cartier.”

Everybody around the table laughed briefly at that, with Ulianov then speaking again.

“While the KOSTROMA maps the surface from orbit, I would like to send as soon as possible geological teams to the surface, in order to start studying the innards of Eris and to drill for ice samples.”

“My shuttles will provide you maximum support, Doctor.” Replied Tina. “If you wish so, we could send the first surface teams tomorrow morning, once our first revolutions will have helped us build preliminary maps of Eris.”

“That would suit me just fine, Captain.” Said Ulianov, pleased. “I thus suggest that I meet again with you and Doctor Cartier tomorrow morning at eight, so that we could study your preliminary maps and choose the first landing spots.”

“Agreed! A word of caution first to your planetologists and mapping specialists: don’t burn yourselves up right at the start with all-nighters. We are due to stay here over Eris for at least two months, so we have ample time to do the job properly without exhausting ourselves. Enthusiasm is fine, but long term staying power and persistence is better...and avoids mistakes brought by fatigue.”

“Hum, a sensible advice, I would say, Captain, and one I will personally have to heed. I will make sure that my specialists establish proper work shifts.”

“How many teams could you send and sustain at once on the surface, Doctor Ulianov?” Asked Alan Ashford, the senior shuttle pilot of the KOSTROMA.

“I have enough geologists and geophysicists to form up to six complete surface teams. However, I would prefer to send only four teams at a time, so that I have specialists left aboard the ship to receive and analyze their data in real time.”

"Then, I can provide you four shuttles on a long term basis, Doctor."

"Excellent! I think that we will be able to do good progress once we start tomorrow. I would suggest that we break this meeting soon, so that our people rest properly before the start of the work tomorrow on the surface."

"A good idea." Said Tina. "On my part, I will go prepare and send a message to Callisto, to say that we are now in orbit around Eris. Does anyone have any more questions or remarks? No? Then I wish you all a good evening. And don't go party too hard at the APEROSSIMO or at the JUPITER tonight, people!"

That brought again a few laughs as the participants rose from their seats to disperse.

CHAPTER 7 – ERIS

03:58 (Universal Time)

Thursday, December 13, 2317

Mapping section, A.M.S. KOSTROMA

In low orbit over the dwarf planet Eris



“Jennifer, come see this for a moment, please.”

One of the geophysicists assisting the geomatics experts of the expedition in producing preliminary maps of Eris came at once to Heinrich Hausmann, who was contemplating on a wide viewing screen a part of Eris surface that had just been photographed and scanned. Jennifer Wolf saw at once that Hausmann was looking at a picture taken by a magnetometer. The geomatician then pointed to her a specific spot on the screen.

“Look at this anomaly there. What could cause such a localized magnetic signature? Up to now, we have seen nothing but ice and more ice.”

“Is it on the surface or is it under the ice?”

“Under the ice, if I can believe our scans.”

“Hum, maybe it is a nickel-iron meteorite that struck the surface of Eris and then sank under the surface when the heat from the impact melted the top layer of ice. How big is it and how deep is it?”

“How deep is difficult to say right now, but it is certainly big, with a diameter of at least a hundred meters if it is a solid body, or more if it is hollow.”

“Wow! That would have caused quite an impact. No wonder it melted the surface ice and sank. Well, our surface study teams will have plenty of time to check it out in the next few days. Just make sure to note this anomaly for further study and that our maps reflect it.”

“Understood, Jennifer.”

14:25 (Universal Time)

Tuesday, December 18, 2317

Geological Survey Team Number Three

Surface of Eris

“Alright, I think that we won’t get any more meaningful new data from this spot, guys and girls. Let’s move to the next planned spot. Pack up the equipment and put it back in the shuttle.”

As his geological surface crew started repacking their ground sensors and drilling equipment, Toru Ide made a last panoramic visual sweep of the area they had been scanning and drilling, eyeing the flat expanses of methane ice. They were now in their sixth day of work on the surface of Eris and what his team and the three other geological survey teams had found up to now had increased immensely their understanding of the dwarf planet. From multiple seismic sounding tests and ice drillings, they now knew that the crust of methane ice on the surface was only the first layer of a deep and complex planetary structure. On one part, the ice layers on top of the inner structure were about eighty kilometer thick and comprised in succession as you went down a thick surface layer of methane ice covered by a thin film of nitrogen and water ice, followed by intermixed layers of nitrogen ice, liquid methane and water ice. Below those layers, the geologists had found to their surprise a huge ocean of liquid water as deep as 400 kilometers. Just that had been enough to force a complete reappraisal of the inner structure and composition of Eris. But that had been only one part of the surprises. The seismic tests had revealed that under that deep ocean lay a thick layer of rock, the deeper parts of which were most probably molten into magma. Finally, the core of Eris seemed to be made of molten metal, which would explain the magnetic field surrounding the dwarf planet. The astrophysicists and geologists had been dumbstruck by those findings, with the next question being what kept that core molten? In view of the unexpected dept of the ice crust and water ocean, which should have lowered significantly the overall density of Eris, the core part had to be very dense, denser than a simple iron core similar to that of Earth, in order to provide for the calculated density of 2.52. Doctor Steven Barrie, one of the senior astronomers embarked as a passenger on the KOSTROMA, had then advanced the theory that the core was made, not of molten iron, but of molten heavy radioactive elements, possibly uranium mixed with heavy metals like iridium, thorium and tungsten. The intense heat produced by such a gigantic natural uranium reactor pile would be sufficient to melt the iron and rock around it and warm up the sub-surface water ocean, keeping it liquid and also creating volcanic vents that would from time to time erupt on the surface. The so-called ‘Barrie Model’ had now been discussed for more than a day between the scientists on the KOSTROMA and was

rallying more and more believers to it as more data came in to support it. Since the very unusual orbit of Eris around the Sun meant that it probably had originated far away from the Solar System and had then been captured by the Sun as it passed by, millions or even billions of years ago, that hot uranium core could in turn mean that it was part of the leftover core from an exploded star, whose strong gravity had then attracted to it interstellar dust and ice particles as it traveled through the galaxy.

Repacking their equipment and putting it back in the waiting shuttle resting on the surface ice took less than fifty minutes for the seven men and women in spacesuits working with Ide. Their shuttle then flew off, skimming the flat, icy surface of Eris at low altitude while heading south. It again landed vertically on its skids twenty minutes later, near to one of the recorded geyser vents seen from orbit by the KOSTROMA. That spot also happened to be close to a magnetic anomaly attributed to a suspected nickel-iron meteorite sunk under the methane ice. Toru Ide was especially anxious to scan the geyser vent, hoping to find in it further clues to the nature of Eris' interior. In that he was not disappointed, as a remark from the copilot of their shuttle just before landing attracted his attention.

"Hey! Our mapping radar is picking up a multitude of very small objects sprinkled around that geyser vent."

"Sprinkled? And how small are they, actually?"

"Barely big enough to register on our radar when set on top definition, maybe the size of ping pong balls or less. They appear to be mostly on the surface, but some are also embedded at shallow depth in the ice."

"Hum! That sounds like they were spewed out of that vent, to be partially covered afterwards by ice ejected on the surface."

"Any ideas what they could be?" Asked the shuttle pilot to Ide, who was thoughtful for a moment.

"A few possibilities come to my mind, but I will wait until I can find some of those objects before speculating aloud. Whatever they are, they are liable to tell us more about the inside workings of Eris."

The pilot nodded his head at that, understanding his reluctance to speculate. They would anyway know soon enough once landed.

"I will take a couple minutes to do a slow overflight of the geyser area, to map with our radar where those objects lie, so that you can find some of them more easily."

“A good idea, Alex. Once on the surface, my team’s first job will be to use our portable ground penetrating radar sets to find some of those objects. If they indeed originate from the deep core of Eris, then their composition could tell us a lot about this dwarf planet. Mind you, just what we found out up to now more than justifies this expedition. There is enough frozen methane here to supply Humanity in hydrocarbons for millenniums, while this underground warm water ocean could well sustain some forms of living organisms.”

Five minutes later, Toru got from the sensors operator of the shuttle a digital map of the area around the geyser head, which was inactive at the moment, as their craft landed smoothly on the icy surface of Eris. Returning in the aft section of the shuttle, he briefed his team members about what they were going to do, giving them at the same time electronic copies of his area map taken by high definition radar. Sealing their spacesuits, they then cycled through the airlock of the shuttle two at a time, with Toru going out first. With young Ying Lee holding and directing a ground penetrating radar set mounted on a small anti-gravity sled, Toru started walking towards the nearest location where a hard object had been detected around the geyser vent. Having to pass near that vent, he made a small detour to examine it and soon stood beside a long, narrow crack in the methane ice. Looking down in the two meter-wide crack, he was able to see what looked like an ice plug about thirty meters below the surface. Using his camera to film it for a moment, he then resumed his walk. He now could see what looked like a piece of icy rock barely forty meters away, right on the surface. That made him smile with satisfaction: he wouldn’t even need to dig through the ice to get it. That ‘rock’ turned out to be about the size of a small football and was covered by a thin layer of ice. Using a small pick to detach it cautiously from the surface ice, Toru then took it with both hands and lifted it up. He was surprised at once by how light it was for its size. Putting the rock under the radar sled, he let Ying Lee scan it in detail from up close. The young Chinese geologist nodded her head after looking at her imaging screen for a moment.

“I see what looks like a very hard object embedded in the middle of a softer shell. That object occupies only about twenty percent of the volume of this rock, which is made of volcanic, porous rock according to my integrated spectrometer. That volcanic rock’s density is less than that of water, which would explain why this rock could float all the way to the surface to be ejected by this geyser.”

Those words brought more excitement to Toru, who looked himself at the imaging screen.

"A volcanic rock? Then, this could be coming all the way from the central, molten core of Eris. Whatever is embedded inside could give us the composition of that core. This could be a great find indeed."

Looking back at his other team members, now all out of the shuttle, he could see that a pair of them had also found another rock and was busy cutting it out of the ice. He thus spoke in his helmet radio microphone.

"Richard, this is Toru. I found one rock made of light volcanic material surrounding a small, harder object. It may have come all the way from the central core of Eris. What do you have?"

"Wait one! I am going to scan it now... Yup! I also have some kind of nugget embedded in porous volcanic rock."

"Then, keep it intact for later study on the KOSTROMA. The same goes for any further rocks we find. On my part, I am going to break open the rock I have, to see what's inside."

"Understood!"

Retrieving the rock from under the radar sled, Toru put it flat on the surface ice and, cautiously using his pick, started breaking away the crust of volcanic rock surrounding the central object while watched by a curious Ying Lee. That porous rock proved quite easy to break and he soon held in one hand a sort of crystal the size of a golf ball. It had a faint orange tint to it, something that triggered a thought in his mind: he had seen in the past uranium glass, which had hues of orange-red to lemon yellow. If this was indeed uranium glass, then it would all but prove the 'Barrie Model' about the core of Eris being heated by a mass of uranium. With his heart beating faster now, Toru put the crystal inside the spectrometer analyzer that was part of the sled and ran a scan on it. The results made his eyes and those of Ying bulge from surprise.

"Pure carbon with traces of uranium and thorium?" Said Ying. "And a density of about 3.5? Could this be..."

"A rough diamond? Yes, Ying! It actually makes sense and is another indication that this indeed comes from deep in the hot core of Eris. The conditions there would be right to form such diamonds, while the traces of uranium and thorium would validate the theory about the core being made of radioactive elements. This is indeed a very important find."

The young female geologist took the diamond from inside the spectrometer and held it in the light from her helmet-mounted lamp, making it shine a light orange color.

“Once cut properly, this could make a truly magnificent diamond, Toru.”

“True! If we consider the number of ‘rocks’ we have detected around this vent and the number of vents we saw from orbit, then we may have on Eris a cheap, abundant source of diamonds, something that would certainly please many back on Callisto.”

Ying then smiled to him, a tempting thought going through her mind.

“Do you think that we could claim a finder’s fee and keep a few diamonds for ourselves?”

Toru grinned and wiggled a finger at her.

“Nice try, Ying! The captain will however be the one to decide how those diamonds will be used. Now, let me send a preliminary report about this back to the KOSTROMA: this is big.”

Making his report and answering the avalanche of questions that it triggered from the scientists aboard the KOSTROMA took the next ten minutes, by which time Toru’s team had collected another six ‘rocks’, all of which turned out to be diamonds embedded in volcanic rock. Letting six of his team mates continue collecting diamonds, Toru returned to the geyser vent with Ying and her radar sled, where he studied the crevasse in detail, mapping its inside with radar. Those scans revealed more diamonds and volcanic rocks embedded in the ice walls of the vent. After nearly one hour of scanning the vent, Toru decided that they had enough data about it for the moment: a more thorough study would need a deep drilling rig, something that would wait another day. Looking at the map made of the area, Toru pointed towards the Northwest for the benefit of Ying.

“We will let the others continue picking rocks on the surface. In the meantime, we will go see that magnetic anomaly. If it is indeed a nickel-iron meteorite that slammed into Eris eons ago, then it would constitute by itself a most interesting subject of study.”

“I’m with you!” Replied Ying, pushing her radar sled in the direction shown by Toru and following three steps behind him. They bounced forward in small, cautious hops in the light gravity of Eris, which was only eight percent that of Earth. With the slippery ice surface, there was a real risk of slipping and falling, possibly damaging or

compromising the integrity of their spacesuits. In the nearly non-existent atmosphere of Eris, made of trace vapors of methane and nitrogen, and the actual ambient temperature of minus 224 degrees Celsius, this would result in death within a minute, so Toru went on cautiously, taking fifteen minutes to arrive over the spot of the recorded magnetic anomaly. One reading from his portable magnetometer confirmed to him that he was over the right spot.

“Alright, Ying, activate your radar and start a grid pattern coverage. I will follow beside you and watch the readings at the same time.”

“Got it!”

She barely had time to switch on her radar and have a first look at the imaging screen before she hesitated, unsure of what she was looking at.

“Uh, that meteorite is really big, Toru, but it also has a weird shape.”

Looking as well at the screen, Toru also felt puzzlement: the object embedded deep into the methane ice was indeed big, with a diameter of about 300 meters, but its shape was nothing like any meteorite or asteroid he had seen before. From the lateral radar view he had of it, it looked like a giant saucer with a thickness of seventy meters which was connected to a short, cylindrical base about 150 meters in diameter and 200 meters in length. For a long moment his mind refused to recognize the object for what it was, while his heart accelerated wildly. Cold sweat broke on his forehead as he finally was able to speak.

“That’s not a meteorite or an asteroid: THAT’S A SPACESHIP!”

CHAPTER 8 – A SHOCKING FIND

18:21 (Universal Time)

Tuesday, December 18, 2317

Main conference room, A.M.S. KOSTROMA

Low orbit over dwarf planet Eris



Mireille Cartier had one question for Tina Forster as she entered at a near run the ship's main conference room, where another dozen scientists and ship's officers were already sitting around the table, conversing excitedly among themselves.

"Are we sure that what our geological team found is indeed a spaceship, Captain Forster?"

Tina, who had been discussing with Steven Barrie, gave her a cautious look.

"Not one hundred percent certain, but anything else would surprise me at this point. However, I believe that we should delay any announcement back to Callisto until we know more about what we found."

"Hum, I would tend to agree with you on that." Replied the chief astronomer of Eris Station. Heads around the table nodded at that, telling her that everyone seemed to agree on that point. "So, what do we know up to now on that probable spaceship?"

"Our geological team on the spot has by now composed a fairly good radar picture of the object embedded 200 meters under the surface ice of Eris. Here it is on the wall viewing screen."

The participants to the meeting turned their heads to look at the giant flat screen on the wall behind Tina Forster, where the picture of an object was now visible.

"It looks like a giant mushroom." Remarkd Oleg Ulianov, the chief planetologist of Eris Station. His choice of words brought a faint smile on Tina's face.

"The analogy is actually quite accurate. I can tell you right away that it isn't some sort of meteorite or asteroid: radar scans show that it is made of metal, not rock. Its shape is also too regular and well cut to be anything but an artificial construct. As for being some ancient Earth spaceship that somehow came all the way to Eris, a search of our historical archives told us that the only known spacecraft to approach Eris was the automated exploration probe KUYPER TWO, which skimmed by Eris 104 years ago

before being lost in space. As for being a recent human ship, that is also a non-starter: no ship ever built in the Solar System has this shape and size.”

“Did the KUYPER TWO probe signal the magnetic anomaly that led us to this ship?” Asked Doctor Wei Ming, one of the planetologists that were travelling as passengers on the KOSTROMA. Tina shook her head at that.

“No! In fact, the probe was only able to make a limited number of observations before flying out into deep space: it suffered some major malfunctions before getting to Eris and its magnetometer was not working.”

“So, we don’t know how long this...object has been on Eris?”

“No, but there are a few facts that could tell us things about it. First, it apparently sank into the ice at the vertical, tail first, which suggests that it landed smoothly instead of crashing at an angle. Second, there is no evident damage visible on our radar scans, something that points to a controlled landing. Finally, the fact that it sank so deep in the ice, even though it didn’t crash on Eris, may be due to the hot exhaust of some kind of rocket engine, which melted the ice as it landed.”

“But, if that ship really made a controlled landing, then why didn’t its crew at least try to dig itself out of the ice?” Objected Dana Durning. Steven Barrie, the astronomer who had pushed the leading theory about the structure of Eris, took on himself to answer the ship’s navigator.

“If this is indeed an alien ship and if it is propelled by some sort of rocket engine, then it may very well have landed under the control of a computer acting according to preprogrammed directives. Let me explain: any ship propulsion other than some sort of faster than light drive would mean that any interstellar travel would take decades or even centuries. In that case, you would have the choice of either putting the crew in hibernation, or of building a generation ship, where people would live and die while reproducing themselves. To be viable, a generation ship needs to be truly enormous, with a size at least equal to the KOSTROMA. However, that object is much smaller than our own ship. I would thus tend to think that the crew of this ship is in hibernation mode and may even be still alive, although frozen asleep.”

Everyone around the table gave him stunned looks, with Mireille Cartier speaking next in a near whisper.

“So, we could be facing a possible first contact situation. This could possibly turn into the most important moment ever in human history. We can’t afford any mistake here.”

"I fully agree with you on that, Doctor Cartier." Said Tina Forster, her face somber. "We will thus proceed with extreme caution from now on. One thing that I am resolved to avoid at all cost is a misunderstanding that would end in violence. I thus am ordering that no weapons be carried anywhere near this unknown ship, or inside it. Our first task will obviously be to free that ship from its ice tomb, so that we could study it and find a way to enter it without damaging it."

"What about our original mission to establish a station on Eris, Captain?" Asked Oleg Ulianov.

"It is still on, along with our exploration of Eris, Doctor Ulianov. Our embarked space construction crew will however start digging out that ship while our exploration and geological teams are studying further this dwarf planet to establish the ideal spot for our research station. We will decide on further steps once we have that ship freed from the ice."

"That sounds like a logical plan to me." Said Ulianov. "I'm ready to follow it." Seeing that everyone around the table seemed to agree with that, Tina nodded her head.

"Then, we will proceed accordingly, ladies and gentlemen. Mister Stennis, you may tell your workers that their paid vacation is over."

15:09 (Universal Time)

Thursday, December 20, 2317

240 meters under the surface of Eris

"Pedro, get that ice drill to dig an horizontal ring tunnel around the ship at the 250 meter level."

"Right away, Boss!"

Jake Stennis watched closely as part of his workers, led by Pedro Montes, started drilling down an oblique tunnel from the level they were on. Drilling was actually a misleading term in this case, since they were using digging machines specially designed to work in ice, be it water ice, methane ice or any other type of ice. Those machines basically used heating heads that melted the ice, with the liquids and vapors then pumped out to the surface via heated hoses. Jake Stennis had been doing and directing this kind of work for over twenty years now all over the Solar System, on the icy moons of Jupiter, Saturn, Uranus and Neptune as well as on Pluto and on dozens of asteroids.

Eris was in fact the third dwarf planet he was working on, Jake having built space habitats on Ceres and Pluto in the past. Nearly every Spacer living in fixed installations did so in habitats buried under the ice of their host worlds, with that thick layer of ice protecting them from space radiations and from small meteor strikes. Only things like surface access points, craft landing pads and observation towers normally projected above the surface. Hundreds of millions of humans already lived in such space habitats and, with the recent war with Earth over, Jake anticipated another boom in space construction to house all the people who wanted to escape their depleted, polluted and overpopulated countries of origin on Earth.

Twelve minutes later, one of the workers using a small, portable ice digger to scrape clean of ice the surface of the alien ship already dug out called him, making Jake hurry to the female technician. He didn't have to ask Lena Iskander why she had called him to her, as it became fully obvious to him at once: free of its coating of methane ice, the metallic hull of the alien ship now showed a series of painted symbols. They clearly stood out, being painted white on the light gray of the hull plating and with each symbol being about two meter tall. Jake felt blood rush to his brain as he looked at the alien inscriptions, which looked like nothing he had seen before.

"My god! Lena, you just discovered the first alien writing to be seen by humans. Let me film this, so that I can send a picture to the KOSTROMA."

As he positioned himself in order to be able to film the inscriptions with his spacesuit's helmet camera, he switched to the working frequency of the KOSTROMA and spoke in his radio microphone fixed inside his helmet, near his mouth.

"KOSTROMA, this is Stennis speaking. We have just uncovered some inscriptions on the hull of the alien spaceship. I am going to send you a video via my helmet camera."

Even though the communications technician on the cargo ship did his best to control his excitement at that announcement, it still showed in his voice.

"Alien inscriptions? I will link you up at once to the Captain. Hold on!"

The voice of Tina Forster effectively came on the radio fifteen seconds later.

"Mister Stennis, this is Captain Forster. I have Doctor Cartier with me. You can send your video feed now."

"Here it is, Captain!"

There was a heavy silence for many seconds as Jake slowly swept his camera along the five alien symbols. Tina Forster finally spoke, emotion evident in her tone.

"This could very well be the name of this ship. We can now tell Callisto with absolute certainty that we found an alien ship that came from outside the Solar System. Have you found any other inscriptions up to now, Mister Stennis?"

"Not yet! However, we have uncovered only a small part of the hull of that ship up to now and..."

A near shout on the frequency used by his workers then resonated in his left earphone.

"Boss, I think that we just found some sort of access point while we were approaching the 250 meter level."

"I'm coming!" Said at once Jake, who then relayed that information to Tina Forster as he hurried to the short tunnel going down at an angle of twenty degrees that had been freshly dug by Pedro Montes' team. He arrived beside Pedro's digging team a minute later, noticing at once the large, round depression now visible on the hull of the ship. A worker was still busy cleaning up the ice over part of it but it definitely looked like some sort of hatch with a diameter of maybe 180 centimeters. All the while, Jake left his helmet camera on, so that people on the KOSTROMA could see what he saw now.

"Captain Forster, we have here something that looks furiously like an access hatch to me. I am going to check for any opening mechanism once this part of the hull will be completely cleaned of its ice coating."

"Understood, Mister Stennis. However, even if you find such a mechanism, do not try to open this hatch: we are going to assemble a specialized team that will deal with the job of exploring that ship. It will also give us the time to study those alien symbols. Hopefully, there will be more such symbols around this hatch you found."

"I think that your wish is being granted right now, Captain: one of my technicians is just now uncovering something to the left side of the presumed hatch. Hold on!"

Under the excited eyes of Jake and of his workers, what looked like instructions to open the hatch gradually appeared as the portable ice drill did its work around the round depression. Jake's heart jumped inside his chest when he saw some kind of panel appear, situated just above the inscriptions.

"Captain, I am now filming what appears to be an access mechanism panel and its opening instructions. Are you seeing this now?"

"Yes, we are, Mister Stennis. The exploration team should be at your location in forty minutes. In the meantime, continue your digging around this ship."

“Understood! Stennis, out!” Replied the construction foreman before switching to the frequency of his workers. “Okay, guys, keep digging around that ship, but don’t attempt to enter it: a special team will be here soon to deal with this access hatch.”

Realizing that they were engaged in a work that would truly make history, his men and women redoubled their efforts, anxious to see what would be found inside.

Less than one hour later, a six person team led by Tina Forster herself arrived in the ice tunnel, followed by technicians carrying a portable emergency airlock. Jake Stennis nodded his head with approval on seeing the foldable airlock: such airlocks were designed to be able to fit over access doors and hull openings in order to be able to rescue Spacers trapped in a pressurized compartment surrounded by vacuum. In this case, since they didn’t know if there was a residual atmosphere of some sort inside the alien ship, the airlock would prevent any spill into the vacuum of Eris and would also allow the exploration team to keep the alien access hatch opened, avoiding the possibility of the exploration team ending up trapped inside the ship if the hatch closed back by itself. One of the technicians was in fact carrying a thick, heavy steel jack meant to block a door or hatch in the open position. Taking one step back, Jake pointed the presumed opening mechanism cover to Tina.

“Here is the cover and inscriptions, Captain.”

“Thank you, Mister Stennis. Let’s first put in place our portable airlock over this hatch before touching anything, though. Okay, guys, deploy the airlock!”

Working quickly, the five technicians took only six minutes to install the airlock over the access hatch and its opening mechanism panel and to secure it in place with electromagnets. Once that was done, Tina looked at one of her team members, Jim Lowell, who was the KOSTROMA’s second engineer.

“Me and you will enter the airlock first, Jim. I will let you figure out how to open this hatch.”

“Understood, Tina.” Replied Lowell, whose heart was beating fast: he could very well become the first human ever to enter an alien ship. Carrying a toolbox in one gloved hand, he walked in the airlock ahead of Tina, who entered and closed the inner airtight door of the airlock, securing it and then signaling through one of the windows of the airlock to one technician.

“Alright, pressurize the inner airlock now!”

With their helmet cameras on and with Anwar Duharto, one of the ship's sensors and communications specialists, filming through the window of the airlock, Lowell started studying visually the panel cover and its inscriptions.

"Hmmm! Even though this is clearly alien to us, this indeed looks to me like an emergency access hatch of the sort crewmembers would use to exit the ship to effect emergency repairs on the outer hull. If whoever designed this followed the same philosophy than us about emergency cases, this should be designed to be opened manually, even without ship power."

"What about any inner door? Our own airlock inner doors are designed not to open if the airlock is in vacuum."

"Which is where our airlock may indeed prove handy, Tina. I see some kind of small lever on the hatch, which is probably meant to open it. I'm going to try it."

Inserting two gloved fingers in the recess of the panel containing the lever, Lowell pressed on it and was rewarded by seeing the lever go down and the access panel pop partially open, probably thanks to some spring mechanism.

"Bingo! It seems that those aliens believe in simplicity. I'm starting to like them already."

Opening fully the panel, which was mounted on hinges, he found inside a thirty centimeter-deep recess with two large buttons, one large lever and a small hand wheel, as well as more alien inscriptions. The engineer then stepped aside to let Tina look inside the recess.

"It looks to me like one lever meant to lock and unlock the hatch, with the hand wheel meant to manually open the hatch. The two buttons are probably meant to operate the hatch when the ship is powered."

"That would make sense, Jim. Let's try the buttons first."

To Tina's disappointment, pushing the first button, a blue one, produced nothing. Waiting a few seconds, she then pressed the other button, a red one. Again, nothing happened and no noise was heard.

"Damn! It looks like this ship is dead in terms of power. I will now try the manual levers."

Taking hold of the handle-like lever first, which was tilted to one side, Tina pushed it in the opposite direction. She had to put some significant strength in her effort before the lever moved with a noise of rusted out metal.

"Hell, it sounds like this thing may not have been lubricated in centuries or even millenniums."

"It could very well be the case if this ship truly came from another star system on rocket power alone, Tina."

"Well, let's hope that this wheel can still be turned. I will let your muscles work on this, though."

The big, Titan-born engineer smiled and stepped forward, grabbing the wheel's handle and turning it clockwise first. It didn't budge one bit, making him grunt.

"Either it is stuck, or I am turning in the wrong direction. Trying counter-clockwise now."

A smile appeared on his face when the wheel started turning nearly at once after some resistance.

"I think that we are in business, Tina."

Tina, who was watching closely the hatch as Lowell was turning the wheel, suddenly felt elation fill her.

"IT'S MOVING! KEEP TURNING, JIM!"

Under their expectant eyes, the hatch started opening slowly towards the inside, while a faint hiss of air escaping from inside could be heard through their spacesuits' microphones.

"This thing is mounted on inside hinges." Said Lowell while continuing to turn the wheel. "It was probably designed to stay firmly closed if the inside is pressurized and the outside is in vacuum."

"You are probably right. From what I can see now of the hatch's frame, the outer hull seems fairly thick, being at least five centimeter thick. I can now see the inside of some sort of compartment big enough for six people in spacesuits... YES! There is a hatch visible opposite the exit hatch. The inside was pressurized when we opened it and there seemed to have been little difference in pressure between the inside of this ship and our inner airlock. Let me analyze the air content of that ship..."

After over a minute of watching her portable atmosphere analyzer, Tina nodded her head, pleased.

"Even when taking in account the air that had been inside our inner airlock, the air in this ship seems compatible with us. The oxygen content is richer and there is a surprising portion of helium and other rare gases in it, while the ship pressure was nominally around 1.15 atmospheres."

"It sounds like the atmosphere one would find on a planet with a heavier gravity than Earth." Said Doctor Maria Perez on the radio, making Tina nod her head again.

"True! Join us inside with the rest of the team. I am going to put in place our steel jack and block this hatch in the opened position."

Cycling through the airlock the other four members of the exploration team took six minutes, ample time for Tina to position their steel jack and block the ship's outer hatch. Jim Lowell used that time to go inside the ship's airlock and study the opening mechanism of the outer hatch, as well as the inner hatch giving access to the inside of the alien ship. The low ceiling of the airlock became immediately evident to him, with the top of his spacesuit helmet nearly scraping against it.

"The aliens who built this ship must be much shorter than us on average: the height clearance is no more than two meters. Yet, the width of the inner hatch suggests that they are at least as wide as us."

"Again, something to be expected from a race living on a high gravity planet." Said Maria Perez. "I hope that the artificial gravity inside will not be prohibitively strong."

"Well, right now there is none." Replied Tina. "We are sticking to the floor strictly thanks to our magnetized boot soles. I can't hear any functioning machinery either. This ship seems to be truly dead in terms of power."

"Let's hope that the occupants are not dead as well: it would be a pity for them to travel on such a long trip and die within reach of us."

"A pity indeed! Let's see if we can open this inner hatch and gain access to the inside of the ship."

It took only one minute of examination for Lowell to smile in satisfaction.

"These aliens certainly seem to believe in the K.I.S.S. principle: this hatch can be manually opened from our side."

"The K.I.S.S. principle? What's that?" Asked Maria Perez, making the engineer chuckle.

"Come on, Maria! You don't know about it? It means 'Keep It Simple, Stupid': one of the most important principles in engineering."

"Oh!" Simply said Maria, making Tina giggle.

"Learning new things is never wasted time. Let's see if this hatch mechanism still works."

Remembering to turn counter-clockwise, Tina used both of her hands to turn the hand wheel of the hatch. To her relief, it started turning at once with little effort. After three full rotations, she was able to push open the hatch, revealing a dark compartment beyond. She used her helmet lamp to look around inside, her heart beating faster now.

“It looks like some kind of locker room, which would be logical to find next to an airlock. I am...”

Her sudden gasp and interrupted sentence made Lowell and the others tense at once.

“What is it, Tina?”

“There are three spacesuits hanging in one corner: alien spacesuits.”

“Let me see!” Said Maria Perez, at once excited. “They could tell us a lot about those aliens.”

Entering the dark room first, Tina then pointed the spacesuits to Maria, who approached them with near scientific reverence.

“These aliens must indeed be quite short, although stocky, if I can go by these spacesuits. Their average height seems to be around 150 centimeters. They have two arms ending in hands with four digits: three fingers and an opposing thumb. The two legs of these suits however denote a quite peculiar anatomy: those aliens apparently have Z-like legs, a bit like chicken legs but with an extra joint at the junction with the feet. It is harder to say about the feet themselves: the boots look like fins to me and may be designed to distribute weight over a large surface.”

“All this is prime information.” Said Tina in a sober voice. “Anwar, take close-ups of these suits and retransmit them to the KOSTROMA. Jim, can you assess the technological level of those aliens from these suits?”

“It certainly is worth a try, Tina. Give me a few minutes.”

“Take all your time, Jim: this ship may be the most important find in the history of Humanity and we will take all the time needed to study it properly.”

As Jim Lowell and Karl Grundig, the KOSTROMA’s head life support engineer, started studying the alien spacesuits, Tina swept her helmet lamp around the locker room, examining every detail of it. Realizing that they had left the inner hatch of the airlock open, Tina went to close it out of long-established Spacer reflex: a ship’s hatch was meant to be closed when not in use, in order to avoid a catastrophe in case of a hull breach and explosive decompression. Since Anwar Duharto had placed signal repeaters both inside the airlock and in the locker room, closing that hatch was not likely

to cut them off from the KOSTROMA. Besides, Tina didn't want to risk any accidental damage to this alien ship, especially with the fate of its crew still unknown.

Jim Lowell spoke to Tina on the radio a few minutes later, sounding quite excited.

"I have completed my initial examination of those suits, Tina. We will still need to bring one such suit to our ship for more in-depth study, but I can say that their technology, while different to a point, appears quite similar to ours in terms of level and capability."

"Let's hope that their language will prove to be decipherable. I am dying to learn more about those aliens."

"Please don't use the word 'dying', Tina." Said Vincent Reed, the ship's head computer engineer and last member of the exploration team. "It reminds me of the space horror movie I watched three days ago. In it, some kind of alien monster roamed the inside of a ship, ripping to pieces the crewmembers it met."

"Thanks a lot for bringing this up right now, Vince!" Grumbled Maria Perez, making the others chuckle at the exchange. Tina then became serious again.

"Well, we won't learn more about this ship if we stay in this locker room. Let's find the bridge or engine room of this ship. Our best bet is to go towards the central core. I will lead."

Using the sole hatch of the compartment leading inside the ship, Tina and her team stepped inside a long, wide corridor that was totally dark. Sweeping her helmet lamp around, Tina saw that large doors were spaced regularly along the two sides of the corridor. Walking slowly down the corridor, towards the core of the ship, she soon stopped in front of one of the side doors and examined it.

"It is a sliding door. I can't see any manual opening mechanism."

Just to make sure, she pressed on what seemed to be the button meant to open the door, without results. She couldn't help feel a mix of disappointment and frustration then.

"Until we somehow restore power to this ship, I am afraid that many parts of it will be inaccessible to us. I would hate to have to cut through these doors just to gain access. God knows what could be on the other side of this door."

"Well, it won't be living aliens, if the ambient temperature inside there is the same than in this corridor." Replied Maria Perez. "The temperature in this hallway is only

minus 221 degrees Celsius, about the same as on the surface of Eris. Apparently, the inside of this ship has not been heated for decades, if not for centuries. This does not bode well for the fate of its crew.”

“I am starting to think the same, Maria. It would be a true shame for these aliens to travel all the way to the Solar System, only to die once on Eris. Let’s continue towards the core.”

Resuming her walk, Tina counted 130 paces before arriving at a sort of central rotunda. A large central shaft with a diameter of maybe ten meters sported a number of sliding doors, probably for elevator cabins.

“The general design of this ship is a bit reminiscent of that of our own KOSTROMA. With luck, there should be some sort of emergency stairwell. Look for manual hatches!”

Splitting in two groups of three, they turned around the central shaft, checking for hatches. Jim Lowell’s trio was the first to find one.

“Tina, I have a hatch with manual opening wheel here.”

Tina and her own group joined up with him in a hurry, arriving as Lowell was turning the hand wheel of the hatch. They all anxiously looked inside the darkened space beyond the hatch, with Tina’s heart jumping in her chest when her helmet lamp illuminated the foot of a spiral staircase.

“This must be meant to be used by maintenance and repair crews in case of a power failure. It looks like it is going both down and up. We’re in business!”

“Which way do we go now, Tina?” Asked Lowell. “It would be faster if we split up in two now, with one group going up and the other going down.”

“I agree! Besides, I don’t see what kind of threat this dead ship could be to us. You go down with Karl and Anwar. I will go up with Vincent and Maria. Just make sure to place radio repeaters at intervals to keep in contact.”

“Got it!”

With Vincent Reed and Maria Perez at her back, Tina started climbing the wide stairs, helped by the negligible gravity felt on Eris and in the ship. Exiting the stairwell repeatedly at each level, they found the next eleven levels to be identical to the one they had come through on entering the ship, with six corridors radiating from the core on each level and with similar sliding doors along their sides. Nowhere did they see any lit light or other sign of a powered system on those levels. Things however changed when they

stepped outside of the stairwell on the twelfth floor up. While everything was still dark on that level, a number of steel hatches with opening hand wheels lined the outer wall of the rotunda, something that raised Tina's hopes at once. Stopping for a moment, she activated her helmet's radio microphone.

"Jim, this is Tina. I am now twelve levels up from our entry point and this floor seems to be different, with manual hatches instead of powered sliding doors. How are you doing on your part?"

"I have gone down eleven levels up to now and found them all to be similar to our initial level. I am now proceeding down to the next level."

"Call me at once if you find something new, but don't try to activate any machinery or controls that you may find, apart from door mechanisms."

"Understood!"

Going to the nearest hatch, Tina turned its hand wheel and pushed gently the door open before stepping inside. Her eyes opened wide on seeing in the glow of her helmet lamp what looked like some sort of technical shop.

"It looks like an electronics repair shop. Vince, what do you think?"

Approaching one of the work benches, Reed opened one of the small drawers lining the wall above the bench and took out of it some kind of part, examining it with interest.

"This is some kind of circuit switch. You are probably right about this being a repair shop. We may finally have hit the working levels of this ship."

"And what would be on all those levels we saw prior to this one?" Wondered Tina, attracting a remark from Maria Perez.

"They may be reserved for cryogenic berths for the crew, Tina. Such berths would need minimal power to stay functional, especially with the freezing temperatures on those levels. It was a crying shame that we could not gain access to those lower compartments."

"Indeed! Let's see what else we find on this level."

Going out of the maintenance shop and into the next compartment, they found what looked furiously like some sort of washroom, with stalls containing what had to be toilet seats of obviously alien design. Vincent Reed sat on one of them and smiled inside his spacesuit helmet as he pointed the sort of frontal bulge facing his opened legs.

"Well, if this is indeed a toilet seat, those aliens must be very well endowed, judging from this front cavity: it is a good thirty centimeters deep."

Out of professional curiosity, Maria Perez went to examine closely one of the other toilet seats for a minute.

“Well, there is a liquid evacuation orifice at the end of that frontal cavity, on top of what must be a solid waste evacuation hole at the bottom center of the seat. That cavity could indeed be meant to house the alien equivalent of a penis. This may sound rather unimportant, but it actually tells us more about the anatomy of those aliens. Also, the height of those seats and of those sinks confirm their small height.”

“There is a shower room at the extremity.” Announced Tina, after going to the opening visible at the back of the washroom. We are definitely on a living and working level. Let’s try the next compartment.”

As they were moving out of the washroom, Tina got an excited message from Jim Lowell on the radio.

“Tina, this is Jim! I think that I just found the engineering spaces of this ship. Everything is however so alien in design that I can’t say for sure what I am looking at.”

“Don’t touch any controls, Jim! Just scan and film. We will have ample time to do a detailed study of their technology later. On my part, my group has hit what is looking like a living and working level. I will keep you appraised if anything else of interest pops up. Tina out!”

Opening the next hatch and stepping inside, Tina gasped on seeing circular rows of control stations forming a semi-circle around a central, elevated chair. She knew at once that she was now on the bridge of the alien ship. Walking slowly to the central chair, which had side panels attached to its arm rests, she reflexively brushed her gloved left hand over one of the side panels to remove the thin cover of dust on it, so that she could better examine it. She nearly jumped back when a small green light on the panel lit up, blinking quickly.

“Damn! I must have accidentally activated something by touching this side panel. Jim, this is Tina! I just accidentally powered some kind of control in what must be this ship’s command bridge. Has anything changed at your end?”

“Yes!” Replied the engineer in a tense voice. “I can now hear some kind of machinery come to life somewhere close by. I am however still in the dark.”

“Then, find that working machinery, but proceed with extreme caution. KOSTROMA, this is the Captain: I accidentally triggered some sort of control button and

the alien ship is starting slowly to come to life. Tell the ice digging crews around the alien ship to be ready to evacuate at a moment's notice.”

“Understood, Captain. Do you want that we send a security team to you?”

“Negative, KOSTROMA! I don't want any weapon present within or near this ship. We will deal ourselves with what will happen next. Captain out!”

A low rumbling noise then attracted her attention to what seemed to be a ventilation duct grill. The thermal camera slaved to her helmet visor showed her that warm air was now coming out of the duct, mixing with the stale freezing air presently filling the bridge.

“Tina to Jim! The life support systems just kicked in on the bridge.”

“Here too! I...red lights just lit up from the ceiling!”

Tina also found herself bathed by red lights as she saw control station after control station power up. She suddenly crumpled to the deck with a ‘oomph’ when a strong artificial gravity switched on, sending as well her two team mates to the deck. Maria Perez, doing her best not to show her fear, spoke up then on the radio.

“The bridge is now under a gravity of 1.3! The air in the compartment is warming up quickly. It is now at minus 180 degrees Celsius and climbing.”

“My god, what have I just done?” Whispered Tina to herself.

CHAPTER 9 – FIRST CONTACT

19:56 (Universal Time)

Thursday, December 20, 2317

Inside the alien ship

Surface of Eris



“What do we do now, Tina?” Asked anxiously Maria Perez as she picked herself up heavily from the deck. Tina and Vincent Reed also had to strain themselves to get up with their spacesuits in the 1.3 artificial gravity they now felt.

“We stay, wait and observe for the moment. Tina to Jim: start climbing back to the level of the exit airlock and be ready to evacuate the ship on short notice. Take your time to climb back up, though: no sense in exhausting yourselves by climbing those twelve levels all at once under this 1.3 gravity.”

“Are you kidding? I would have a heart attack if I tried to climb all those levels in one shot. I am on my way up now.”

Tina then looked again around her and saw that all the control stations now sported lit displays and indicators. The red light from the ceiling lamps gave an eerie aspect to the room, attracting a comment from Maria Perez.

“This red lighting seems to be the standard lighting for this ship, instead of being just some emergency lighting system. This may tell us that those aliens come from a solar system with a red star, possibly a red dwarf.”

“Great! This would include about two thirds of all the stars in our galaxy. You are however probably right about your assumption, Maria. If that’s the case, then those aliens will literally see things in quite a different perspective from us. Continue monitoring the changes in environmental conditions.”

“Well, the air pressure and composition has not changed from what we detected on our entrance in the ship. However, the ambient air temperature is continuing to climb quickly and is now at minus 84 degrees Celsius.”

“Then, we should be able soon to open our visors and breathe the ship’s air.” Suggested Vincent Reed. “That way, we could save on our spacesuits’ air reserves.”

"NO!" Countered at once Maria Perez. "We have no idea of what the germs we carry could do to those aliens if we spread them by breathing around this ship. I advise a total biological separation from any alien until we know more about their morphology and immune systems. I also advise that we decontaminate our spacesuits on return to the KOSTROMA: this biological danger could work both ways."

"I agree." Said Tina before switching on her ship's frequency. "KOSTROMA, this is Tina. All our people entering and exiting this alien ship will follow full decontamination procedures on return to our ship. The same will apply to all the equipment brought inside this ship and to both the inside and outside of our shuttles."

"Understood, Tina." Answered Dana Durning from the bridge of the KOSTROMA. Tina was then quiet for the next few minutes as Maria Perez kept monitoring the ambient conditions. Jim Lowell came back on the radio seven minutes later, sounding exhausted and panting.

"Tina, this is Jim... My group is now back near the airlock. I must signal you that, while the air in the machinery spaces and the central spine hub have been warming up, the air on the decks with sealed sliding doors is still at minus 224 degrees Celsius. Karl thinks that this is due to an intentional alien procedure to keep at freezing temperatures the levels used possibly for cryoberths, in order to save energy."

"This could mean in turn that only a select few crewmembers are meant to be reanimated first on arrival in our system, in order to assess and select their final destination." Added Maria Perez. "Once a definite landing point would have been reached and declared suitable for life, then those select crewmembers could start reanimating the rest of their people. That is a classic scenario often discussed in the past about possible interstellar travel."

"Hum, you are probably right." Said Tina. "How soon do you think those select crewmembers could start awakening, if they are indeed in cryogenic hibernation?"

"Not before the ambient conditions on their deck level are back to normal, at the least. The whole thing is probably managed by a special computer program. However, awakening from cryogenic sleep could take hours for those aliens. All our own studies on that subject pointed to the need for a very cautious and gradual awakening process."

"Then, we may still have hours before any alien shows up. Let's use that time to continue exploring this deck and the decks above us."

Tina, followed by Maria and Vincent, then left the bridge and went to check on the other compartments on their present deck. They found in succession what appeared to be some kind of crew lounge or cafeteria, thirty empty crew cabins, a storage room full of alien clothes sealed in plastic bundles and boxes and a circuitry room. The last compartment they visited on this level was actually a suite of interconnected rooms that awakened Maria Perez' enthusiasm.

"This looks like the ship's infirmary: look at those anatomical charts on the walls and that examination table. This is a fantastic find!"

Accompanied by Tina and Vincent, Maria approached one of the wall charts, which showed the anatomical structure of an alien creature, and examined it avidly.

"This is fascinating! Those aliens are utterly different from us, but they are still quite fair-looking. From this chart, I would also say that they are probably hermaphrodites, with sexual organs for both impregnation and gestation. Look at this penis just above a kind of vagina connected to a uterus."

"So, everybody in their society could screw anybody else then?" Said a bit crudely Vincent Reed. "That could make relationships among their crew, uh, interesting."

Tina winced at Reed's remark but kept her eyes on the anatomical chart of the alien. The creature depicted on it had two strong-looking Z-shaped legs ending in wide, duck-like feet. The torso, short in proportion to the legs, supported two strong arms with four-digit fingers, with a long, relatively thin neck supporting a head with a voluminous cranium. That cranium was however stretching to the back, rather than up, with a long, slender snout and a small mouth. Two large eyes were positioned behind the snout, under a prominent brow ridge that also featured a pair of nostrils. The head was completed by a pair of long, slender ears pointing up that reminded Tina of the head of a deer, but with a large brain. There was no hair or fur visible on the whole body, whose skin was of pale brown color. Maria then pointed at the internal organs, visible on the chart.

"From the arrangement of their digestive system and from their dentition, I would bet that those aliens are vegetarians or herbivores. All this is incredible! I'm going to film this and retransmit the pictures at once to the KOSTROMA."

"Good idea, Maria. These pictures will certainly be part of the report I am going to send to Callisto once back on our ship. I can already imagine the kind of shock and sensation this will make on Callisto and the rest of the Solar System."

Vincent Reed gave her a cautious look then, speaking in a subdued voice.

“Well, let’s hope that all the reactions will be positive ones, Tina.”

“What do you mean, Vince?”

“What I mean is that, if we can’t even live in peace among ourselves and tolerate each other, what could be the reaction of some to those aliens coming here? I can bet that a few idiots will scream about an alien invasion or some other stupid fear.”

“Hum, I hate to say this but you may be right about that. However, any decision concerning how to relate with those aliens will be way above my pay grade. The only thing that I can ensure by myself is that we cut the possibilities of any misunderstandings to a minimum. Let’s see what the rest of this infirmary has to show us while Maria takes her pictures.”

The next rooms connected to the examination room proved to be a kind of medical laboratory and a small ward with six empty beds. The ward’s aft wall was actually a transparent partition with a large sliding door. Approaching it and looking through the transparent pane, Tina nearly jumped back and gasped audibly on seeing what looked like three robots of undefined functions moving around a double row of coffin-like metal boxes on pedestals. There was a total of thirty boxes, each easily big enough to contain an alien like the one depicted on the chart she had just looked at.

“MARIA, YOU BETTER COME HERE, QUICKLY!”

“What? What did you find, Tina?” Said Maria while starting to walk towards the back rooms.

“I see thirty alien cryoberths, with robots active around them. I think that we just found the initial contact crew of this ship.”

Stopping by Tina’s side less than twenty seconds later, the doctor looked with wide eyes inside the room containing the coffin-like boxes.

“Oh my god! They are in the process of being reawakened.”

She then tried to open the sliding door by approaching it, the way the doors had been sliding open in front of them inside the infirmary, but the door stayed closed. Her attempt however triggered a kind of sound alarm accompanied by the rapid flashing of a blue luminescent panel near the frame of the sliding panel.

“Damn! What is happening now?”

“We must have triggered some kind of alarm system.” Said Tina, now tense. “Since this reanimation process is certainly a delicate operation, I suppose that any

unauthorized presence near the reanimation room would trigger some kind of response. That's it: we're leaving! Let these aliens wake up undisturbed by us. We will reassess our approach to them as things happen. Jim, this is Tina: evacuate the ship now! KOSTROMA, have the digging crews pull out with all their equipment and return to the ship. However, tell them to leave our portable airlock in place. I am now withdrawing as well."

"What is happening, Tina?" Asked the voice of Dana Durning, alarmed, on the radio.

"The aliens are starting their reanimation process, that's what. Make sure that everyone that went inside this ship follows the decontamination procedures on return to the KOSTROMA. Tina out! Maria, Vince, let's get the hell out of here!"

23:17 (Universal Time)

Residence of the Governor of the Jovian System

Callisto Prime, Callisto (8th moon of Jupiter)

Jovian System

Janet Robeson was very un-governor-like at the time, wearing only her night gown and sitting in her favorite sofa with her feet up while listening with her husband Gerald to some classical music in the lounge of her residence. She was doing her best to relax after a long day of work when her wrist communicator vibrated, signaling an incoming call. Sighing with frustration at what was probably another work related problem, the solidly built sixty year-old woman opened the link and saw the face of some duty officer of the Spacers League Administration on the tiny screen of her communicator.

"Governor Robeson! What is it, mister?"

The man, who appeared and sounded agitated, answered her in quick words.

"Sorry to disturb you at such an hour, Governor, but we just received a top priority encrypted message from the KOSTROMA, around Eris."

"And?" Said a bit impatiently Janet.

"They found an alien spaceship buried in the ice of Eris, Madam Governor."

"WHAT?" Shouted Janet, making her husband jump in his easy chair.

"An alien ship, madam. That ship appeared dead at first but, when a team entered it to explore it, it came back to life. While no actual direct contact has been

made yet between crewmembers of the KOSTROMA and those aliens, the team that entered that ship saw enough to convince them that the ship comes from another star system. The report from the KOSTROMA includes still pictures and videos taken inside the alien ship. Should I relay that report to your residence, Madam Governor?"

"Yes! You have the code for my secure home terminal?"

"We do, Madam Governor. I am sending you the file right now."

"Thank you! I will go review it, then will call you back to initiate any action needed. We will probably have to call an emergency meeting of the Spacers League Council about this. However, keep this piece of news under tight wrap for the moment: we don't want all the yahoos in the Solar System to start panicking about this."

"Yes, Madam Governor!"

As Janet closed the link and was getting up from her sofa, her husband looked at her with curiosity.

"What's up, Janet?"

"Something that words can hardly describe. Come with me to my private study: we have to view something together. Put the music on hold."

"Uh, okay!"

With her husband in tow, Janet walked quickly to her study and sat behind her big work desk, then powered her secure computer terminal. Gerald stood behind her, looking over her shoulder, as she opened the file sent by the duty officer. Both looked and listened in silence at the video report from the KOSTROMA, specially shaken by the pictures showing the alien anatomical chart in the infirmary of the unknown ship and by the view of the rows of coffin-like cryoberths in the process of reactivating. Gerald Robeson was the first to speak at the end of the report, his voice weak.

"My god! After so many centuries of hoping to find life in other solar systems, we finally get visitors. What will you do now, Janet?"

"This is too big an event for me to decide alone, Gerald. Besides, we still know too little on these alien visitors to make intelligent decisions about them. Did they come as visitors, as invaders or as refugees?"

"As refugees?"

"Yes! We don't know yet how many of those aliens are aboard that ship on Eris. They may very well be fleeing from a devastated home world, with the hope of finding a new world to live in."

“And what could have forced them to flee their world? A natural disaster? A giant asteroid strike?”

“That, or a war.” Replied glumly Janet. “We need more information on those aliens, and quickly. Hopefully, Captain Forster will manage to tell us more soon.”

10:20 (Universal Time)

Saturday, December 22, 2317

Bridge of the A.M.S. KOSTROMA

In orbit around Eris

Tina was trying her best to hide her growing impatience as she watched from her command chair the various sensors displays around the bridge. Since she had full confidence in the competence and diligence of her bridge specialists, she knew better than harass them every five minutes with questions about the alien ship. It had been over a day and a half since she had to exit that ship in a hurry, yet there had not been any external sign of life or activity from the alien ship since, not even a single radio signal. Not wanting to waste precious time, Tina had ordered the surface survey teams to resume their work studying the dwarf planet and selecting the best spot for the research station whose modules were still carried by the KOSTROMA. In the meantime, dozens of scientists had been poring over the pictures taken inside the alien ship, with the medical specialists and biologists paying a lot of attention to the pictures of the anatomical charts seen in the alien infirmary. Those pictures, apart from telling a lot about the aliens themselves, also had helped to start building a written vocabulary of the alien language, using the written words connected to the various parts shown on the charts. That written list of alien words was however still very limited and tentative.

One of the surface planetary survey teams had just reported that it was moving to a new location when Anwar Duharto, one of the two communications and sensors specialists on duty, jerked in his padded, crash-resistant seat, then shouted in Tina's direction.

“CAPTAIN, BLINKING LIGHTS HAVE APPEARED ON THE EXTERNAL HULL OF THE ALIEN SHIP!”

Herself straightening up in her command chair, Tina looked in the video screen that kept a view of the alien ship on it and effectively saw blue and green blinking lights now faintly visible through the thick ice covering it.

“At last! They have awakened! Watch for possible incoming radio signals from the alien ship.”

“I am on it, Captain.”

Less than one minute later, Duharto spoke again in an excited tone.

“We are now receiving a video signal on our main ship to surface frequency, Captain. It is from the alien ship. Putting it on your main viewer.”

“Thank you, Anwar!” Replied Tania. “Make sure that everything is recorded from now on.”

Looking down at the display screen attached to the left armrest of her chair, Tina saw a still picture appear on it. It showed the alien ship, but not in its present ice tomb. Rather, it was sitting on a sort of landing pad in a plain bathed by the rays of a red sun in a pink sky, with buildings visible in the distance. Tina understood with a shock that she was seeing it as it was prior to launch on its home world. Two small groups of alien symbols then appeared on the picture, just above the image of the ship. Five seconds later, those symbols started blinking at the same time as a voice started repeating at five second intervals two words.

“Veon Shouria... Veon Shouria... Veon Shouria...”

The still picture changed half a minute later, to show an alien standing on the launch pad, dressed in a sort of white coverall and carrying what looked like a tool belt. One group of symbol appeared above the alien and started blinking five seconds later, as the voice started repeating one word.

“Koorivar... Koorivar... Koorivar...”

The still picture changed to a moving video film another half minute later, showing first a close-up of the big rocket exhaust nozzle under the ship as it erupted in blue flames. The view then switched to a more distant one, to show the ship as it flew off its launch pad to climb skyward. The view then changed again, to that of a view from orbit of a beautiful planet as the alien ship was speeding away from it. Again, a single group of symbols appeared on the video, accompanied by a single, repeating word.

“Shouria... Shouria... Shouria...”

“The Koorivar have left their planet, Shouria, on their ship, named ‘VEON SHOURIA.’” Whispered to herself Tina, nodding in appreciation at the clever way the

aliens had chosen to communicate without a common language. The video was however far from over. One minute later, the view changed to a computerized image using icons and symbols. One icon, which represented most probably the alien ship, was flying away from the planet Shouria, heading towards deep space. A dotted blue line linked the planet to the ship. After another minute, the view changed to show a complete star system, with three stars in the system. The two main stars in the center were orange in color, while a third, smaller red star, turned around them at a respectable distance. The red star was the one linked to the trajectory of the departing ship and possessed six planets, the third planet being marked as Shouria and showing a big moon around it. A moving yellow dot appearing at the edge of the image then attracted Tina's eyes. It was apparently going very fast as it intruded inside the red dwarf star system and was clearly coming from deep space. As it approached the red dwarf sun and its planets, two more icons departed from Shouria, heading in two different and opposite directions from the VEON SHOURIA.

"The Koorivar launched two more ships from their planet, but in different directions than the one we found." Said Tina, making Reena Shapour, the second navigator of the KOSTROMA, nod her head.

"You are right, Captain, and I believe that this yellow dot is the reason the Koorival launched their ships: its course will deeply disturb the orbits of the planets around the red dwarf star and, depending on its mass and precise trajectory, may even destroy them."

Reena's prediction unfortunately proved prophetic, as the video image split into two views: one of the whole system of the red dwarf star, the other looking like a long range telescope view of a huge, gas giant planet with a uniform brown surface.

"A wandering brown dwarf!" Exclaimed Reena with horror. Tina understood too well her reaction then: a brown dwarf was basically a gas giant planet so big that it barely missed becoming a star during its formation. Some of those brown dwarves, like other lost planetary bodies, were known to be traveling freely through the galaxy, unattached to any star. Being dark objects, they were notoriously difficult to detect from long distances and, due to their gigantic mass and gravity pull, could cause havoc if it ever crossed the path of a star system. Havoc was precisely what the brown dwarf caused in this case, shown in accelerated fashion by the digital video display. Pulling the fifth planet from its normal orbit and making it spiral down closer to the red dwarf star, the brown dwarf then skimmed the surface of the red dwarf, ripping huge masses of

hot solar material from the red dwarf while itself losing part of its mass in the exchange. The careening brown dwarf then collided head on with the second planet of the system. That planet disappeared inside the brown dwarf in a monstrous flash of kinetic energy. That impact in turn sent a shock wave through the system, a shock wave that the third planet, Shouria, could not avoid. The wave impacted first the big moon orbiting Shouria, then swept over the surface of the third planet, blowing away its atmosphere and oceans. Blood rushed to Tina's brain as she watched with horror that apocalyptic vision. More was however in store for the unfortunate planet, as its moon was pushed down by the shock wave and collided with Shouria. The impact speed was not enough to break to pieces the planet, but the moon ended up burying itself deep inside Shouria. By then, Tina understood too well that no one on Shouria could have survived this. As the brown dwarf continued its way through the solar system, eventually returning to deep space as if nothing had happened, a wave of solar magma ripped off from the red dwarf washed over Shouria, completing the destruction of all life on the planet and adding to its initial mass and that of its moon, now embedded in it.

The whole bridge crew was left stunned and speechless after watching that tragedy. Tina had to sit back to go over the emotional wave that just hit her. The next image on the video however made her look closely again: a star chart now covered the background, with a dotted blue line shown leaving a triple star system that had to be the Koorivar home system and going towards a solitary yellow star. Reena Shapour, the navigator on duty, spoke up excitedly then.

"Captain, I now recognize the triple star system of the Koorivar from its position relative to our sun: that's Gliese 667! The red dwarf star was Gliese 667C, while Shouria is what we call now Gliese 667Cc, although it was originally what we would have been calling Gliese 667Cd. The spectral types of the stars on the chart we see correspond to our charts of this region in the constellation of Scorpius. The Koorivar have thus traveled a full 22 light years to come to us. With them using a sub light ship to arrive here, their trip must have taken a few hundred years."

"You are probably right, Reena. So, these Koorivars are refugees from a world destroyed by a natural disaster. We must send that information..."

The picture on her screen changed yet again, interrupting Tina. This time, it was a moving video film showing herself in her spacesuit, along with Vincent Reed and Maria Perez, inside the infirmary of the Koorivar ship.

"Hell, some cameras did film us after all while we were inside the alien ship."

She then fell silent as she watched Maria Perez approach the cryoberths vault, triggering the alarm that had made them withdraw. As her trio left the infirmary, an icon shaped like a human being attached itself to her image. The picture of the infirmary then quickly shrank, becoming that of the alien ship, buried under the ice of Eris. The human icon remained visible, shown exiting the ship and climbing to the surface through the drawing of a tunnel in the ice connecting the ship with the surface. The human icon then joined up on the surface with a group of other human icons, then remained still. What followed ten seconds later made blood rush to Tina's head. The group of human icons moved together back into the ice tunnel, then was shown making the ice covering and surrounding the alien ship disappear. That brought a puzzled exclamation from Anwar Duharto.

"But, we didn't dig the ice above the alien ship. Why are they showing this?"

"We effectively didn't dig the ice there, but the Koorivar are now asking us to do it, Anwar. They want us to free their ship from the ice."

Everybody on the bridge looked with shock at Tina as she activated the ship's intercom.

"This is the Captain. Mister Stennis is requested on the bridge at once! I say again, Mister Stennis is requested on the bridge at once! The space construction crew is to prepare to resume ice digging operations at the earliest."

Tina next looked at Reena Shapour.

"Reena, I want you to prepare a video response to the Koorivar's video, using the same pictorial and sound system they used. Show them the KOSTROMA, pictures of a man, a woman and a group of children of varying age and sex, plus Earth, our solar system and our departure from Callisto. I want that video to explain clearly who we are and where we come from, on top of teaching them a few words in English. Show us at the end returning en masse to their ship to dig it out. Make it as fast as you can but show it to me for review before sending it."

"Understood, Tina. What are you going to do in the meantime?"

"I will be briefing Mister Stennis on the job I expect his crew to do to dig out the VEON SHOURIA. Afterwards, I will prepare and send a new report to Callisto, with the Koorivar message attached to it."

Reena actually came thirty minutes later with her draft video to Tina's day cabin, where she had finished briefing Jake Stennis and was now preparing her report for

Callisto Prime. A quick review satisfied Tina, who approved it for transmission to the Koorivar ship. Another fifteen minutes later, Tina's intercom beeped, making her open the link. She was not a little surprised to see that the call was coming from Spirit, the ship's central computer. Spirit spoke in her usual calm female melodious voice, but her words shook Tina.

"Captain, this is Spirit. I just received a call from the central computer of the VEON SHOURIA. It wants to open a data link between the two of us."

"They want to open a data link? Did they say why?"

"Shanya, their intelligent computer, explained graphically to me that it was with the goal of building a translation program between us."

Tina nodded slowly her head at that: it certainly made a lot of sense and could help a lot to build relations with the Koorivars.

"You have my permission to proceed with the data link, Spirit. Once you have enough of the Koorivar language deciphered, start building a translation program that we could use in our portable translators."

"Are there some subjects I should avoid using during our data link exchange, Captain?"

Tina had to think seriously her answer about that, as it was far from a frivolous question. She suspected that human history, with its litany of wars and atrocities, could very well repulse the Koorivars and make them suspicious of her intents, or make them squarely hostile. She however believed that being frank now was better than to lie and then have the Koorivars find out themselves the truth about human past.

"Do not discuss our encrypted communications protocols with this Shanya and do not display our weapons but, if you are to show them our history to them to help build a vocabulary, then do not paste over our violent past. Just make sure that they understand that we can be good more often than when we can be bad. Also, show them in what state the Earth is now ecologically and physically. I want them to understand that we are ourselves short of living space and that I can't promise them anything yet. Our political leaders on Callisto Prime and on Earth are the only ones that will be able to make and keep promises."

"I understand, Captain. I will keep you apprised of my progress in building a translation software. Spirit out!"

As the intercom viewer went blank, Tina sat back to think about that latest conversation. This was becoming more and more a political problem as it was becoming a

humanitarian rescue operation. Hopefully, the politicians back home would find some compassion in their hearts and forget their conflicting interests at least long enough to help the Koorivars.

CHAPTER 10 – POLITICAL REACTIONS

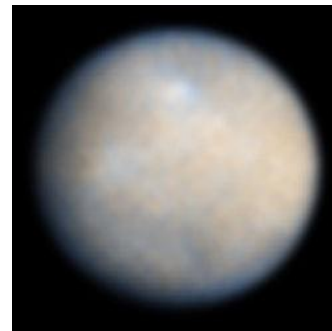
09:08 (Universal Time)

Monday, December 24, 2317

Ceres Consortium head offices

Demeter, dwarf planet Ceres

Main Asteroid Belt



Toru Tomonaga shook hands with Juan Perez, who had just arrived from his distant Titan, in the Saturn System, and showed him to his seat around the big conference table before going to his own seat. While his consortium was hosting this emergency meeting of the Spacers League Council due to Ceres being the nearest common destination for their group, Janet Robeson was chairing the meeting as the current head of the League. Also present due to the nature of the meeting's main subject was Claudia d'Arcy, the President of the Earth's Northern Alliance, a strong ally of the Spacers League. Janet Robeson then opened the meeting with a smile and a nod from the head.

"Thank you all for coming on such short notice, ladies and gentlemen. A special thanks to you for coming, President d'Arcy. I realize how busy you are due to the continuing hostilities between your Northern Alliance and the Southern Federation. I also want to present my excuses to you all for providing you with only the most minimal information about that alien ship found on Eris. However, that information was at first very scanty and had the potential to start public disturbances and possibly panic if leaked in the open. Now that we are here together to discuss this in private, I can inform you that the KOSTROMA was able to obtain more information about that alien ship. In fact, it received a video message from the alien ship two days ago that explained a lot of things, then started an ongoing exchange of information and data with that ship. I will first show you that initial alien video message, then will brief you on what happened during the last two days."

The showing of the initial alien video took about nine minutes and left the participants to the meeting, save Janet Robeson, seriously shaken. Charles Watts, the governor of Mars, spoke somberly at the end, looking around the table.

"After seeing this, I believe that those Koorivars deserve our help and that we should do our utmost to assist them in finding a new home. Our main topic of discussion should thus not be about whether to help them, but rather how to help them."

"I fully agree with you, Charles," replied Janet Robeson, "but you should listen to a few new information before we start discussing this seriously. That data exchange between the VEON SHOURIA and the KOSTROMA, apart from helping to build a translation software, has also revealed some very relevant information. First, that alien ship left Shouria with a total of 22,134 Koorivars in cryogenic sleep, with a computer in charge of the ship. Second, it left Shouria in the year 1959 of our calendar and traveled for 301 years before arriving in our Solar System. It thus traveled at an average speed of 7.3 percent of the speed of light, or close to 22,000 kilometers per second, a rather impressive performance for a rocket ship. The VEON SHOURIA was by then under the control of a secondary, low performance computer that had been built for maximum long term reliability while the main computer was in sleep mode inside a heavily protected anti-radiation vault. That secondary computer however still failed partly and, unable to fulfill the last part of its program, effected an emergency landing on the first celestial body it encountered, in this case Eris. Its rocket exhaust melted the surface ice of Eris on landing and it buried itself deep in the ice. That secondary computer then compounded its final failure by not awakening its designated first contact crew, contrary to its initial directives. Only the visit of the KOSTROMA's exploration team, by triggering an alarm, initiated the awakening of that first contact team. Since then, and after receiving the first video message from the VEON SHOURIA, the construction crew embarked on the KOSTROMA has been busy melting and pumping away the methane ice covering the alien ship, at the request of the Koorivars."

Jacobus Stein, a metallurgist engineer and the CEO of the Pallas Mining Industries, a major industrial player in the Spacers League, was the first to ask a question.

"Has the crew of the KOSTROMA have yet a face to face meeting with one or more of those aliens, Janet?"

"No, not yet! Captain Forster wants to wait to be invited in before returning to the Koorivar ship. She is also waiting for a translation software to be ready, to facilitate any future exchange."

“And what do we know exactly of the biology of those Koorivars?” Asked Nadia Suslov, the CEO of the Sverdlorsk Group, based on Hygiea. “Is there any possibility of mutual contamination or transmission of diseases? The spreading of an alien virus or microbe in our space habitats could be catastrophic to all of us. In fact, has Captain Forster followed biological hazard protocols when visiting that ship?”

“She did!” Answered at once Janet Robeson. She could not blame the fiery blonde for asking that, as it was a legitimate question about a very possible threat. “All those that entered the Koorivar ship kept their spacesuits sealed and went through decontamination on returning to the KOSTROMA. As for the possibility of biological contamination, the main computers of the VEON SHOURIA and of the KOSTROMA have exchanged a mass of biomedical data, including cell structures, tissue and blood composition, body micro-organisms and even food compatibility. While the Koorivars turned out to be purely vegetarians and herbivores and don’t eat meat, their biological differences with us have been assessed to render mutual contamination unlikely. We will however have to wait for actual testing of tissue and organism samples before we could give a more definitive verdict on that.”

“What about the food the Koorivars eat normally?” Asked Claudia d’Arcy. “Could they assimilate our own vegetarian products and grains without danger of poisoning?”

“Again, we will have to wait for actual sample testing before we have a definite answer on that. However, preliminary data about the chemical structure and composition of the main staples of the Koorivar show them to be fairly close to a number of our grains, fruits and vegetables. If we ever give assistance and shelter to all these Koorivars, I then believe that the best way to take care of that problem will be to build for them special hydroponic gardens, planting in them seeds they brought with them.”

“Hum, that would imply that we would give them some land space or space habitat volume, so that they could live decently. Twenty-two thousand Koorivars is still a manageable number, but selecting a location for them could be contentious, especially if they intend to reproduce quickly and expand their population.”

“Well, I believe that this last point is precisely the one on which we will have to work the hardest to arrive at a consensus.” Said soberly Janet Robeson. “Is any of you ready to receive, house and support those alien refugees, as well as giving them adequate living and development space?”

Janet was not surprised to see the men and women around the table look at each other with indecision, clearly reluctant to volunteer their own resources. She however understood too well their hesitations: Humanity had just come out of a costly war two years ago that had left deep scars in the psyche of their populations. Also, the Earth was still as overpopulated as before and the various Spacer worlds were still scrambling to build more space habitats, mostly under the ice surfaces of various moons and giant asteroids, for their growing populations and for the flow of prospective immigrants wanting to escape the pollution and overpopulation of Earth. Claudia d'Arcy finally asked a question to Janet.

"What kind of environmental conditions did the Koorivars live under on their planet Shouria? Was it a cold, hot or temperate world? Did it have oceans?"

"We are lucky in that the KOSTROMA got that information during its data exchange with the VEON SHOURIA, President d'Arcy. To sum it up, the gravity on Shouria was 1.3 gravities, the atmospheric pressure at sea level was 1,156 millibars, the average annual temperature at the terminator turned around 21 degrees Celsius, falling to sixteen degrees Celsius on the dark side and rising to maximums around 29 degrees Celsius at the equator, facing its sun. It had both salt water oceans and dry continents covered with vegetation. While the atmosphere was thicker and heavier than that of Earth, it also had a higher oxygen content, on top of containing quite a lot of helium, radon and other rare gases."

"So," said pensively d'Arcy, "high altitude locations on Earth would definitely harm those Koorivars, while tropical and desertic climates would be quite uncomfortable for them."

"Correct! The scientists on the KOSTROMA deemed that a temperate continental climate, allied to a low-lying, forested land, would be the most appropriate type of home for them. That or a specially adapted space habitat."

That attracted a frown on the face of Karl Langemann, CEO of the Vesta Consortium, one of the biggest builder of space habitat components.

"To produce enough prefabricated space habitats to house over 22,000 persons would take months, if not close to a year. That does not count the time needed to transport them and bury them in selected locations on an ice moon, nor the time to produce all the industrial and hydroponic equipment that would go into them."

As the group pondered the last arguments, Claudia d'Arcy seemed to take a decision and spoke up.

"Let me time to study this problem. I can't promise anything right now, but I may have a possibility in mind. In the meantime, I believe that we should worry about something else: the possible reactions of Earth citizens to alien neighbors. You all know as well as me how easily some demagogue preachers and hatemongers can manipulate crowds if they raise the specter of some kind of alien threat."

"You are unfortunately too right about that, President d'Arcy." Replied Janet Robeson on a disillusioned tone. "I remember what happened a century ago, when local micro-organisms and primitive aquatic creatures were found to populate the underground oceans of Europa, Callisto and Enceladus. Many tried then to have the Jupiter and Saturn systems quarantined indefinitely, to supposedly protect Earth from 'space contamination'. It took some endless argumentation and months to calm the public fears raised by a few doomsayers."

"Yes, I also remember that." Said the governor of the Saturn, Uranus, Neptune and Pluto systems, Juan Perez. "It will be even worse if we settle these Koorivars on Earth. However, I strongly believe that they need to be settled on Earth, for psychological reasons."

"I think so as well." Said Claudia d'Arcy. "Besides, it will be much easier to find space for them somewhere on Earth than to build new space habitats. Switching to another problem concerning the Koorivars: even if we settle them somewhere, how do we make them productive, inclusive citizens of our society?"

"I'm afraid that this problem will be better studied by an army of economists and sociologists." Replied Janet Robeson. "The KOSTROMA will not come back from its expedition for at least another six months, so we will have ample time to discuss those various problems and find solutions. For the moment, I suggest that we let Captain Forster and her team of scientists free to study the Koorivars and give us more information on them."

CHAPTER 11 – GETTING TO KNOW EACH OTHER

13:46 (Universal Time)

Tuesday, December 25, 2317

Command bridge of the A.M.S. KOSTROMA

Low orbit around ERIS



“KOSTROMA, this is Stennis: the VEON SHOURIA is now completely free of ice and my digging teams are in the process of pulling out of the site, over.”

Tina, sitting in her command chair, replied herself to that message.

“Understood! Advise us once your teams are at a safe distance from the basin.”

“Will do! Stennis out!”

Tina then concentrated on the view of the VEON SHOURIA on one of her screens. Three days of intensive work by Jake Stennis’ digging crews had hollowed a basin in the methane ice with a diameter of nearly 500 meters and a depth of 550 meters. The Koorivar ship now rested in the open at the bottom of that basin, standing on its five landing legs. Six minutes later, just after Stennis had reported that all his workers and their equipment were back in their shuttles and on the way back to the KOSTROMA, Tina saw the Koorivar ship starting to slowly rise from the basin, probably under some sort of anti-gravity propulsion. She watched, fascinated, as the alien ship emerged above the surface ice of Eris, then moved sideways equally slowly, finally landing back on its skids on the methane ice surface. Less than a minute later, she heard on her opened radio channel the slightly high pitch voice of Shanya, the central computer of the VEON SHOURIA, speaking in its now more than decent English.

“Thank you, KOSTROMA, in the name of the Koorivars.”

Spirit, the KOSTROMA’s central computer, replied to that in the Koorivar language, with the English equivalent being scribbled simultaneously on Tina’s viewer. Then came a message from the VEON SHOURIA that Tina had been hoping for since she had withdrawn from the alien ship.

“Captain Forster, Captain Shanandar would like you to meet him aboard his ship, at your convenience. You may bring up to three companions with you if you wish so.”

Tina hurried to answer at once.

“VEON SHOURIA, this is Captain Forster. I am pleased to accept the invitation of Captain Shanandar. I will be at the foot of your ship with three companions in approximately one Earth hour. Thank you again for your invitation. KOSTROMA out!”

As soon as she closed the channel, Tina thought about who would accompany her and with what. It took her less than a minute to take a decision and switch her intercom on.

“Attention, please! This is the Captain speaking! I want Jim Lowell, Doctor Maria Perez and Doctor Steven Barrie to report immediately to the command bridge conference room. I say again: Jim Lowell, Doctor Maria Perez and Doctor Steven Barrie are to report immediately to the command bridge conference room. Thank you!”

Next, she called the head of her agronomy department, Janus Kadar.

“Janus, this is Tina. You remember the list of vegetal products we checked for possible compatibility with the Koorivars’ biochemistry?”

“Yes, I do! We also checked out a few dairy products as well.”

“Then, I want you to prepare samples of all those products, as well as of the food items we produce on the ship out of those products. Measure enough of those products and items for multiple sampling and analysis. Make it quick: I will be getting them in about half an hour.”

“Holy! Then, I better get on it right away!”

“Thanks, Janus!”

Tina then got out of her command chair, heading towards the small conference room of the bridge complex.

15:03 (Universal Time)

At the surface of Eris, near the VEON SHOURIA

Tina’s small group stepped out of the shuttle that had brought them close to one of the landing legs of the Koorivar ship, carrying two large storage boxes full of foodstuff samples. The armored door of what seemed to be an access tube integrated into the landing leg and skid then opened as they heard a radio message in English in their spacesuit helmets.

“Please enter our access airlock with your companions, Captain Forster.”

“Thank you!” Replied Tina before starting to walk towards the open door, followed by the three others. Climbing the ramp leading to the door, she entered a fairly large compartment that would have been large enough for twelve humans in spacesuits.

As soon as the whole group was in, an airtight door on the inside closed and the noise of hissing air filling the compartment started to be heard. Pressurizing the compartment took about twenty seconds, with an inside door opening afterwards, revealing what looked like an elevator cabin. The group of humans could not help step back in surprise on seeing a suited alien figure inside the elevator cabin. The Koorivar, who stood about 155 centimeters without his spacesuit, bowed to them and spoke on the radio in his language, with his ship's computer translating at once.

"Welcome on the VEON SHOURIA. I am Kooroo. Captain Shanandar sent me to guide you to him. Please step inside the elevator cabin."

"Thank you, Kooroo." Said Tina before entering the cabin, imitated by her companions, who put down their two storage boxes. She waited until the door of the cabin had closed and that they had started moving up before speaking again.

"Kooroo, may I present my friends, from left to right: Doctor Steven Barrie, Jim Lowell and Doctor Maria Perez."

The Koorivar eyed all four of them with intense curiosity, evidently noting the difference in body shapes between the two men and two women.

"You have both male and female friends with you, right? We did have such male/female differentiated species on Shouria, but we are ourselves what you would call hermaphrodites, I believe."

"Me and Maria Perez are indeed females, while Jim Lowell and Steven Barrie are males."

"And what did you bring in those two crates, if I may ask, Captain Forster?"

"We brought with us samples of the various vegetal foodstuff we have on our ship, so that you could test them for compatibility with the Koorivar digestive system."

Tina thought that she saw then a sudden spark of interest in the purple eyes of Kooroo, who made what she believe to be a smile with his small, deer-like mouth.

"An excellent initiative indeed, Captain Forster. Aren't you going to unseal your spacesuits now? I assure you that our atmosphere is completely compatible with your breathing needs."

"If you don't mind, we prefer to keep our suits sealed until we are both reassured that we are not going to contaminate you and your ship."

"An understandable precaution, Captain. Ah, here we are!"

The cabin now stopped, its door slid open, revealing a long, wide corridor lit by red overhead lamps.

"Please follow me!" Said Kooroo before stepping out of the cabin and starting to walk down the corridor while removing his spacesuit's helmet. His gait was strange indeed in the eyes of the four humans, his two thick, muscular legs reminding them of chicken legs, but with an extra joint. While definitely alien in aspect, the Koorivar could be said to look cute in a way, the way a human would find a young deer or kangaroo cute. The Koorivar in fact reminded Tina of a kangaroo with a deer head, but with no tail and with different, much thicker legs and arms. It had no fur, its pale brown skin being smooth and bare under its spacesuit, and its long snout, with a narrow mouth under it, sported what looked like a vestigial short horn at its tip. Slight bulges in the torso of Kooroo's spacesuit showed the presence of a pair of breasts, something Tina had seen previously on the anatomical charts inside the alien ship's infirmary. Breasts would be logical for hermaphrodites, on top of both male and female genitalia, since all the members of that species could procreate and have to feed infants. The knowledge about breasts with the Koorivars had pushed Tina in thinking that maybe they could eat and digest some of the dairy products produced on the KOSTROMA, which was the reason she had asked Janus Kadar to include dairy products in the samples.

Following Kooroo while carrying their two storage boxes, the four humans were finally invited by him to enter a room on the left side of the corridor, close to the central core. They found themselves in a large, nearly empty room whose only furniture was a 'U' shape arrangement of twenty seats. The seats itself were strange, looking like chairs placed backward and with computer terminals and screens attached to their high backs. Tina's eyes however hooked at once on the six Koorivars waiting in the room, each one behind a chair. They wore a sort of loose fitting blue coveralls and wide, soft sole boots. One of the Koorivars, whose coverall sported more white braid than the others, then spoke in his language with a high pitch voice, with the ship's computer translating at once.

"Welcome on the VEON SHOURIA, Captain Forster. I am Shanandar, captain of this ship. I must say that your KOSTROMA makes for an impressive sight indeed."

"Thank you, Captain Shanandar. However, your ship's interstellar trip is even more impressive."

Shanandar bowed to that compliment, then looked at Kooroo.

"You may return to your duties, Kooroo."

“Yes, Captain!” Replied Kooroo before turning around and leaving the room. Once the door was closed behind him, Tania pointed her companions to Shanandar.

“May I present you my ship’s medical doctor, Doctor Maria Perez, my second engineer, Jim Lowell, and one of our top astronomers, Doctor Steven Barrie.”

Shanandar and the five other Koorivars bowed after that, with Shanandar returning the favor.

“And here are Krennek, my ship’s navigator, Shoumak, my chief engineer, Shirani, our head planetologist, Kazmiriel, our ship’s healer, and Shourazan, our head bio-chemist. Before we go further, I must thank you and your crew for delivering us from our icy tomb. Without your visit and your subsequent digging work, we would have been probably condemned to stay in cold sleep for many more centuries, until our isotopic batteries would have run out. Then, we would have all died, and with us would have died one of the last hopes of our species.”

“To save your ship and crew brought us great pride and joy, Captain Shanandar. As you may have seen from our history, which you were able to view, we may be a violent race at times, but we are also capable of much compassion and kindness.”

Tina thanked at that moment the fact that they had to pause to let the ship’s computer, Shanya, translate both sides of the conversation, something that let her ample time to think before speaking. Shanandar bowed again.

“Your honesty and openness are certainly reassuring to us, Captain Forster. I must say that we were at first nervous to face carnivorous beings, especially after seeing the way you raise animals and then eat them. On Shouria, we had all but wiped out carnivorous predators, so that our people could go around in peace.”

That made Tina smile.

“I certainly can understand your point of view, Captain Shanandar. While on the subject of food, we brought with us samples of all the types of vegetal and dairy foodstuff that can be found on our ship, so that your specialists could analyze them and confirm if they would be edible or not for your people.”

She didn’t miss the fact that all the Koorivars immediately looked at the boxes with apparent intense interest. Maybe their food situation was bad and they were short on rations. That was a very real possibility, since a 301 year-long trip in space would put to the ultimate test the shelf life of any type of preserved foodstuff. The next question from Shanandar only reinforced that supposition.

“Do you have much reserves of those vegetal foodstuff on your ship, Captain Forster?”

“We in fact grow our own food on our ship and have enough surplus to be able to sell part of it at our various stops. We also happen to have come to Eris to establish a scientific research station and we brought substantial extra food reserves to stock that station. Even for my ship, which is considered very fast and long range by human standards, the return trip between Jupiter and Eris takes close to one Earth year, so that station needs to have enough food reserves for two years. Are you in immediate need of some food?”

Tina, anxious to see if Shanandar would be frank with her or would try to hide his difficulties because of pride, was reassured to see him answer in a straightforward way.

“We in fact are facing a cruel problem right now, Captain Foster. When we woke up, we initially used a synthesized liquid nutrient formula to regain our strength in the first hours. Then, we opened our ready reserves of solid food, only to find that they have all turned bad during our long trip among the stars. Further checks showed us to our despair that all of our food reserves, including the seeds from Shouria that we intended to use to plant new crops once we had found a new home, have gone bad and are unfit for consumption. I am afraid that, if your own foodstuff is found to be incompatible with our digestive systems, then we will be condemned to starve to death.”

Tina, like her three companions, was left speechless and horrified by that declaration.

“But...but, there must be something that can be done to prevent that. Surely, some of our foodstuff will prove to be edible by Koorivars.”

Shanandar saw the emotion in her response and nodded his head somberly.

“We hope so as well. Shourazan, Kazmiriel, you will need to work fast from now on. Bring those food samples to our bio-chemistry laboratory and start analyzing them at once.”

Maria Perez, who had been even more shaken by Shanandar’s confession than Tina had been, then took a quick decision.

“Then I will stay and help your people test our samples.”

Tina, like Jim Lowell and Steven Barrie, looked at her with surprise and misgiving.

“But...you will run out of air for your spacesuit in about twenty hours, Maria. You can’t remove your spacesuit here until we are sure that you won’t contaminate the Koorivars with some human disease.”

"Then, I will have Minnie, my assistant, replace me in fifteen hours. Time is of the essence now and extra helping hands are needed here."

What appeared furiously like tears ran down the faces of Shanandar and of the other five Koorivars present.

"You were not lying when you said that your race was capable of compassion and kindness, Captain Forster. We will be most happy to accept the help of your doctor and to host her. Kazmiriel, you will take Doctor Perez with you to the laboratory."

"At once, Captain!"

They all watched as the two Koorivars and Maria Perez walked out, carrying the two boxes of food samples. Shanandar then pointed the 'chairs' nearest Tina and her two companions.

"Please, have a seat: we have much to discuss together."

Shanandar then sat himself, advancing with his legs spread until he straddled one of the chairs' horizontal bench, lowering his posterior on the bench and leaning his chest on the front vertical padded support, with his two arms straddling the vertical support and now being in position to use the computer terminal attached to the vertical support. The three humans imitated him and actually found the benches quite comfortable. Shanandar addressed Tina again, with Shanya continuing to translate.

"Now that the most urgent matter has been taken care of, let us talk about the future, Captain Foster. Your information sent to us showed that, apart from going through a fratricidal war recently, your race's original planet is grossly overpopulated, heavily polluted and depleted of much of its original natural resources. In these conditions, what are the chances that your race will be able to offer us some viable living space? Before you answer that, please know that, contrary to you, the Koorivars are mostly a sedentary people and did not travel or live in space to the extent you humans do. While we certainly had the technology to easily travel within our solar system, we made a conscious choice to cling to firm ground and thus built only minimal space installations and ships. You could in fact say that you are truly space veterans compared to us. Your own KOSTROMA, while not having an interstellar drive, is a very impressive ship by Koorivar standards. You also seem to have some types of technologies in which you are superior to us."

"In which technologies, if I may ask?"

"In weapons, for starters." Replied Shanandar with a meaning smile. "Your so-called 'gravity sails' are also way superior to our own short range anti-gravity fields in

terms of secondary propulsion system. Our computer technology, while different, seems to be about on par with yours in terms of capability. Where we Koorivars particularly shine by contrast is in bio-chemistry and what you would call the decorative and creative arts. While you humans seems to be very good at working in space, we Koorivars fancy ourselves to be artists first and foremost. Our nature is mostly pacifist, probably due to the fact that we don't eat meat and never had to hunt other species. The time and resources you expended to make war during your own history, we used to develop our social and artistic skills. So, what could your race offer to a community of artists and farmers?"

"To be frank, that would rightly be a decision to be taken by my politicians, Captain Shanandar. I however can tell you that, while much of Earth is indeed overpopulated and polluted, some areas managed to avoid those problems, through more careful local management and long term policies. There are still intact territories large enough for a few tens of thousands of people that are available on Earth, notably in a number of natural wild life reserves and parks. I myself periodically go take vacations in such a park area on the west coast of what we call North America, which is the best preserved continent on Earth by far. There are dense forests there, with long ocean coastlines and plenty of wild life. I am sure that you would love it."

"I would indeed like to visit it, Captain Forster."

"Please, call me simply Tina." She replied with a gentle smile. Shanandar made a smile of his own and nodded his head.

"Very well, Tina. And what would your politicians ask of us in return for giving us a place to live?"

"That is something that only they could decide, Shanandar. Hopefully, they will ask for nothing in return save for your friendship. I myself would find that more than sufficient. Just the cultural exchanges between us would stimulate greatly our own social growth and, with luck, make us a less violent race. Please understand that the question about whether other intelligent beings existed in the Universe has been one that has resulted in many heated debates during our history. Now that we have found you, that debate could possibly now turn to a more positive one, by shutting up the demagogues who were claiming that we were some kind of special exception created by God."

“Ah yes, this religion business.” Said Shirani, the Koorivar planetologist, in a guarded tone. “We once cultivated such kinds of beliefs, thousands of years ago, but we thankfully outgrew them once we realized how tiny a part of the Universe we were.”

“Many of us have also outgrown those beliefs, Shirani. Unfortunately, some still push those beliefs, targeting in particular the least educated and the more naive of our people, with the goal of influencing them and gaining power on them.”

The Koorivar chief engineer, Shoumak, then jumped in the conversation.

“Tina, you have sent us much data about your history, your bio-chemistry and the structure of your society, but you have given us little hard data on your own ship and its various systems, save for its general characteristics and performance.”

“To which I could reply that you did yourself tell us little about your ship, my dear Shoumak.” Replied Tina without hesitation but in a polite tone. That seemed to amuse Shanandar, who looked at Shoumak while speaking to Tina.

“Please excuse my chief engineer, Tina: he tends to be more suspicious than me on many things. It must be a professional deformation on his part. However, he was correct in saying that you didn’t say much specifically about your ship. For one, you didn’t tell us if you have any weapons on your ship, yet your recent history mentions your KOSTROMA as having taken part in the hostilities during your last war.”

“Touché!” Said Tina, electing to stay honest with the Koorivar. “At the time, I deemed those details as superfluous: finding ways to help you was a more pressing matter. To answer you: yes, we have weapons on our ship. In fact, despite being officially an ultra heavy cargo ship, the KOSTROMA is presently rated as the most powerful warship in this solar system. We destroyed dozens of enemy warships in combat before peace could be reestablished. Be assured however that we have nothing but peaceful intentions towards you.”

Her direct answer threw a bit of a chill on the conversation, as she had expected but, in her mind, lying would have been worse in the long run. Her gamble seemingly paid off, with Shanandar bowing to her.

“Honesty is a quality we admire most, Tina. Let us talk openly to each other, then. I can tell you now that our ship’s main propulsion system is based on the release of energy from the mutual destruction of matter and anti-matter.”

Jim Lowell’s face lit up at those words.

“I suspected so! Only an anti-matter rocket engine would have the power to propel a ship up to a notable fraction of the speed of light, short of some kind of system

that would distort space and time. But manufacturing this much anti-matter must have been a huge industrial undertaking for you, no?"

"Not really, Mister Lowell." Replied Shoumak. "We produced our anti-matter as we went."

That pronouncement left Tina, Jim Lowell and Steven Barrie speechless for a moment. Lowell finally got over his stupor and nearly shouted his next question.

"But, how could you do that? We need huge particle accelerators and fabulous quantities of electrical energy just to produce a few milligrams of anti-matter."

Shoumak nodded at that.

"Your data showed that much to us. However, know that we have developed a technique to transmute matter into anti-matter, using little energy and only very compact equipment. Our ship is fuelled by lead pellets, with pellets melted and heated into vapors. Half of those vapors is then converted into anti-matter and injected into a rocket exhaust chamber, along with an equal amount of normal lead vapor. The reaction between the two types of vapors then liberate massive amounts of energy that is funneled out through our main rocket nozzle, propelling our ship."

"But...but, that's fantastic! This could revolutionize our whole space travel industry and make space travel much cheaper." Exclaimed Lowell.

"But it also could cause our utter destruction." Replied Tina somberly, her face grave. As Lowell and Barrie looked at her with confusion, she spoke in a gloomy voice.

"Imagine what some on Earth would do with such a technique to easily produce anti-matter at will. It would take no time before someone produced weapons and bombs with that technology, weapons and bombs that could blow to pieces whole asteroids and carve huge craters where our subsurface space cities are. Do you think that men like President Mobutu of the African Federation, or Marshal Khan, would have hesitated to use anti-matter weapons against the Spacers League, or against the Northern Alliance? I don't think that they would wait one second and there are plenty of men like them left on Earth...and around the Solar System."

Lowell and Barrie were unable to reply to that, mostly because they realized at once that she was right. On his part, Shanandar got up from his bench and clapped his hands together, obviously imitating human applause.

"I see that I judged you right, Captain Forster. You are indeed a good, honest and forward-looking person whom we Koorivars can fully trust. You would be one of the first persons to benefit from using our anti-matter technology, yet saw at once its

potential dangers if put in the wrong hands. So, what would you counsel us to do with that technology?"

"It belongs solely to the Koorivars by right, Shanandar, and no human should order you to give it away. If I would be you, I would destroy your anti-matter engine and erase all the computer files concerning it, to avoid its misuse."

"And how would we then bring our ship to your Earth afterwards?" Asked Shoumak, as Lowell and Barrie gave Tina stunned, outraged looks. Very conscious of the kind of trouble this could put her in, Tina ignored the looks from her two companions and answered the Koorivar engineer.

"Simple: my ship would take you in tow and bring you to Earth. The KOSTROMA can tow a mass of up to twenty million tons behind its stern and could easily handle your ship. It could even enter vertically the atmosphere of Earth and gently put down your ship on the spot of your choice."

"But, you don't have the right to take such a decision by yourself, Captain!" Objected Steven Barrie. "This anti-matter drive could open to us the road to the stars."

"And would you argue that we should acquire it by all means, including outright theft, Doctor Barrie?" Shot back Tina, hardening her tone. As an heated verbal exchange started between Tina and the astronomer, with Jim Lowell watching from the side, unsure what to say, Shanandar spoke to Shoumak in the Koorivar language.

"Shanya, do not translate my next words to Shoumak. Shoumak, go at once to the engine room. You know what you have to do now."

"I understand, Captain. I'm on it!"

Shortly after Shoumak had left the room, Maria Perez entered it, attracted by the increasingly harsh words she was hearing on her radio. Having heard the whole exchange from the human side, she already knew the reason for the dispute and charged Steven Barrie, patting rather roughly the left shoulder of his spacesuit.

"How the hell do you dare talk like this to our captain?"

"How do I dare? I dare because she is going to throw away a chance for Humanity to make a tremendous step forward in science and in space exploration. That is not her decision to take. That's a decision that belongs to our political leaders and to the leaders of the scientific community."

"Wrong! That's a decision that belongs to the Koorivar, and to no one else. Did you even listen to her arguments, or are you so completely blinded by the possibilities of

that technology that you are ready to forget all that happened only two years ago? Are you advocating that we take that technology by force?"

Only then did Barrie seem to remember that there were Koorivars present, listening. He gave them a side look and kept for himself the words he had in his throat. As for Jim Lowell, while the engineer in him screamed of holding on to the anti-matter technology at all cost, the man in him started to understand the point of view of Tina. Shanandar looked gravely at the four humans present in front of him.

"Captain Forster was certainly right about the ownership of our anti-matter drive technology: it is ours to decide, and ours alone. She is also right about another important thing, in that the preservation of peace is more important than boundless technological progress. That is a lesson that we Koorivars learned during our millenniums of history. You would do well to remember that, Doctor Barrie."

The astronomer reddened with anger at that rebuke but didn't reply to it. Judging that her group better leave now before the controversy blew up again, Tina got up from her bench and bowed to Shanandar.

"I believe that me and my people better return to the KOSTROMA now and let you analyze those food samples with the help of Doctor Perez, Captain. Permission to leave your ship."

"Permission granted, Captain Forster. Thank you again for all that you did for us. We will advise you by radio as soon as we have the results of our sample analysis. Krennek will guide you back to your shuttle."

Tina left after a last bow, following the Koorivar navigator and with Lowell and Barrie in tow. On her part, Maria Perez nodded her head to Shanandar and left to return to the bio-chemistry lab.

Two hundred meters below, in the main machinery room, Shoumak, helped by his assistant engineer, finished disconnecting the matter conversion chamber and its molecular inverter tubes, then carried it into another compartment used to effect major repairs. Fixing the seventy kilo piece of equipment to a work bench with the help of a vise grip, Shoumak grabbed next a plasma torch and lit it up. A few repeated passes were enough to transform the conversion chamber and inverter tubes into pieces of molten slag. Gathering all the spare parts related to the anti-matter drive, he also melted them down, then erased all the computer files documenting the drive and its governing

principles, ordering his assistant to do the same with all the copies of the maintenance procedures concerning the anti-matter drive.

15:58 (Universal Time)

Shuttle Hangar Number Six

A.M.S. KOSTROMA, in low Eris orbit

“THIS IS NOT OVER, CAPTAIN FORSTER, I PROMISE YOU!”

John Murdoch, one of the small craft maintenance technicians of the KOSTROMA that was present in the hangar when an apparently furious Doctor Barrie stepped out of the shuttle, threw a dark look at the astronomer as the latter walked away. He then looked at Tina, who was now coming out of the shuttle with Jim Lowell.

“What the hell is wrong with that asshole, Captain?”

“Nothing that I can’t handle by myself, Mister Murdoch.” Replied an apparently frustrated Tina before also walking away, leaving the technician to scratch his head.

18:45 (Universal Time)

Crew cafeteria, Level 19

A.M.S. KOSTROMA

Tina was eating her supper without much conviction, her mind wondering still if she had taken the right decisions on the VEON SHOURIA, when a smiling Jake Stennis showed at her table.

“I know that you are a busy person lately, Captain, but could I speak with you for a moment?”

Tina steeled herself immediately, expecting more criticism about her counsels given to the Koorivars. She however didn’t want to be impolite to the construction crew manager and pointed the chair opposite hers.

“Please, have a seat, Mister Stennis.”

Stennis sat down at once and glanced at Tina’s supper, chicken fried rice with green vegetables.

"I am sorry to disturb your supper like this, Captain, but this shouldn't take long. I came to inquire with you about the ownership of the diamonds we found on Eris. Some of my men are wondering if they will be able to get a cut from them."

Stennis was surprised to see Tina seemingly relax suddenly at his last words.

"Uh, did I say something inappropriate?"

"No, no, not at all, Mister Stennis." Said Tina, smiling to him. "To answer you, I don't know yet about that. Since the Spacers League funded this expedition, I suspect that it will get at least part ownership of those diamonds, if not of the whole lot. I could always send a message to Callisto Prime to clarify that subject, which will probably be decided by high level lawyers."

"I suppose that you are right about that, Captain. Still, even a small percentage of those diamonds as a 'finders' fee' would be nice for my men."

"I will certainly mention your men, along with the others involved in the surface exploration of Eris, in my message. May I ask you in turn a question?"

"But, of course, Captain!"

"You are a qualified geologist and deal a lot with the value of various minerals. Would the quantity and quality of the diamonds we found to date be enough to impact on the market price of diamonds back home?"

"Oh, certainly!" Replied without hesitation Stennis. "The diamonds we found here are of prime quality, apart from being unique in color. The quantity we found to date also rivals maybe a full year's worth of diamond mining on Earth."

"So, putting those Eris diamonds on the market could severely devalue the price of all diamonds, right?"

"Most possibly, Captain. What are you coming at?"

"Well, I was toying with the idea that maybe part of those diamonds could be used to produce jewels that would constitute gifts to all of our people, including your crews, that is of course with the prior approval of the Spacers League administration. Wouldn't your workers like to be able to offer a nice diamond necklace and earrings set to their wives or daughters?"

Stennis smiled as he thought that idea over.

"I suppose that Jenny wouldn't mind that one bit. I like your idea."

"Then I will make sure to inform you of the answer from Callisto Prime on your request as soon as I get one, Mister Stennis."

"Thank you, Captain! You are most kind. Have a good evening."

As Stennis got up and walked away, Tina couldn't help think that her evening was most probably already shot, with Steven Barrie being said to be busy raising the ire of the other scientists on the KOSTROMA against her. There was however one possible way for her to change her mood tonight to something a bit more cheerful.

19:11 (Universal Time)

The GLEAMING STARS jewelry shop

Main Promenade Deck, Level 9

A.M.S. KOSTROMA

David Simonov bowed his head politely and smiled to Tina when she entered his jewelry shop, situated on the Main Promenade Deck of the ship.

"What may I do for you this evening, Captain?"

"Actually, you are the one who could do something for me...and the rest of the crew." Replied Tina before putting on the counter a small box. Opening it, she uncovered three big, rough and uncut orange-yellow diamonds that made David's eye open wide with admiration.

"These must be three of the diamonds that your crewmembers found on Eris, right? They are awesome!"

"They indeed are, Mister Simonov. While the ultimate ownership of the diamonds we found is still unsure, I decided that at least one Eris diamond could be used to produce something that would properly commemorate this expedition. You are a qualified stone cutter, aren't you?"

"I certainly am, Captain!" Replied proudly the jeweler. "I learned my trade with the diamond cutters guild of Amsterdam before opening my shop on your ship. By the way, all those extra passengers you accepted on the KOSTROMA for this expedition did much good to my business, and I must thank you for that."

"You are welcomed, Mister Simonov. I want you to look closely at those three diamonds and to choose which one would be the best to produce a single, unique large diamond that would serve as a stand-alone souvenir of this expedition."

"Let me just get my lenses, Captain. It won't be long." Replied the jeweler, emotion nearly overtaking him. Searching under his counter, he quickly produced a set of magnifying lenses and adjusted one over his right eye before grabbing in turn each diamond and examining them carefully, watched quietly by Tina. After maybe four

minutes, he put one of the three uncut diamonds, which was the size of an orange, in front of Tina.

"This one has a minimum of fault lines in it and could be used to produce a truly unique gem, Captain. You do want a one piece, un-mounted diamond, right?"

"Correct! As payment for your work in cutting and polishing that diamond, I will let you keep the diamond parts cut out of it. Would that be satisfactory for you?"

Simonov nodded his head at once: on such a big rough stone, cutting it properly would result in maybe one third of the material being cut away. Since the stone was so big, the parts cut away would still be more than big enough to produce many nice jewels with them.

"That will be more than enough to compensate me for my work, Captain."

"Excellent! How long will you need to do the work?"

"I wouldn't dare rush my work on such a beauty, Captain. I also need to man my shop during the day and evening. Maybe a month."

"A month it will be. Depending on the answer I will get from Callisto Prime about who will own the rest of the diamonds we found on Eris, I may have more diamonds for you to cut in the future, Mister Simonov."

"I will certainly await with eagerness that answer from Callisto Prime, Captain. Thank you for putting your confidence in me."

"You deserve it, Mister Simonov. Have a good evening."

"And a good evening to you as well, Captain."

Tina then put back in her box the two diamonds ruled out by Simonov and left the shop, leaving the jeweler with the chosen stone still on his counter. Simonov contemplated the rough stone for a long time, already thinking how he was going to turn it into a masterpiece of visual beauty.

20:33 (Universal Time)

Thursday, December 27, 2317

Shuttle Hangar Number Five

A.M.S. KOSTROMA

Tina warmly hugged Maria Perez as the latter stepped out of the shuttle that had brought her back from the VEON SHOURIA.

"Nice work on the VEON SHOURIA, Maria. So, we can truly cohabitate with the Koorivars without risks of transmitting diseases to each other?"

"We can!" Answered the medical doctor, grinning. "Their physiology and bio-chemistry is too different from ours. Our microbes and viruses simply wither and die from starvation when put in Koorivar cellular cultures. The same happened to Koorivar organisms left in human cellular cultures. The other good news is that, even though our bio-chemistry is different, many of our vegetal foodstuff can be digested by the Kooriva while providing them their basic nutrients needs. Our various cereals and green vegetables in particular are compatible and are even found to be tasty by the Koorivars, who tried them after we finished analyzing them. I have the list of compatible foodstuffs with me."

"Excellent! Could you show it to me right away?"

A bit surprised by Tina's request, Maria took out her data pad as Tina shouted to the crew of the shuttle, which was coming out of their craft.

"HOLD IT THERE, GUYS! YOU WILL HAVE SOME SUPPLIES TO BRING IN A HURRY TO THE VEON SHOURIA."

Now understanding what Tina was thinking, Maria smiled to her and showed her a file she had opened on her data pad.

"Those are all the foodstuff items found to be compatible and safe for consumption by the Koorivars. I made a separate list of the items that are indigestible or squarely harmful to them. The stars besides each item denote the rating in terms of taste appeal of the item according to the Koorivars."

Reviewing quickly Maria's list, Tina then opened a line on her wrist communicator, calling Carla Forlani, the ship's head of food production management.

"Carla, this is Tina. I know that the hour is late, but I need you to shake your people into action in order to prepare immediately a delivery of foodstuff to the VEON SHOURIA. Be ready to note the following, to be packed and sent at once to Shuttle Hangar Number Five: one ton of wheat grains; one ton of oat grains; two tons of cabbage of various types; half a ton of carrots; half a ton of green peppers; a hundred kilos of peanut butter; a hundred kilos of fresh strawberries and, finally, fifty kilos of cacao beans. Have the lot put in vacuum-resistant containers before bringing it to the shuttle waiting in Hangar Five... Thanks in advance, Carla."

When Tina faced again Maria Perez, the doctor was smiling widely in gratitude at her.

"The Koorivars will be ecstatic over that delivery of food, Tina. Their liquid nutrient solution kept them from starving, but they were really in need of some solid food. You will be truly a saving angel for them."

"Well, others on this ship are calling me rather more nasty names, Maria." Replied Tina, a bitter smile on her lips. "A group of astronomers and astrophysicists sent yesterday a petition to Callisto Prime by laser beam, asking that I be impeached for me counseling the Koorivars not to give away the design of their anti-matter drive."

"Screw those idiots!" Spat Maria at once. "I hope that none of our crew joined that petition."

"Thankfully, none did. Discord among the crew is the last thing I need right now. Jim Lowell did approach me afterwards to say that he had been asked by those scientists to put his name on the petition, but he refused. He told me that he now understands fully my reasons for counseling the Koorivars against giving the secret of their anti-matter drive."

"Good for him! Let's hope that our politicians back home will show as much common sense as Jim."

"Do you really think they will?" Said Tina, doubtful. Maria then made a grimace.

"Uh, not really. They are politicians, after all."

14:01 (Universal Time)

Friday, December, 2317

Office of the Governor of the Jovian System

Callisto Prime, Callisto (8th moon of Jupiter)

Jovian System

Janet Robeson noticed at once the unhappy expression on the face of Zu Lyang Li, the head of the Jovian Association of Astronomers and a person with a lot of influence in the local scientific community. She greeted him on his entrance with a handshake and a smile.

"Welcome, Doctor Li! What may I do for you today?"

"I am here to present you a petition signed by the majority of the members of my association, Madam Governor."

"A petition? Then, let's sit and discuss it calmly. Would you like some tea?"

"That would be a fine idea, Madam Governor."

As Li took the sofa offered by her, Janet quickly told her secretary to bring a tea service, then sat opposite the astronomer in an easy chair.

“So, what is this petition about and what caused it, Doctor Li?”

“It is concerning a flagrant abuse of power on the part of the captain of the KOSTROMA, Fleet Captain Forster, Madam Governor.”

Janet did a doubletake at those words.

“An abuse of power? By Captain Tina Forster? There must be a mistake, Doctor Li: I know Captain Forster well and she is no power drunk officer.”

“Well, I will let you judge with this, Madam Governor.” Replied Li, presenting to her a printed message. “This was received by me yesterday and came from a group of astronomers and astrophysicists presently aboard the KOSTROMA, in orbit around Eris. I think that their message and petition are self-explanatory.”

Frowning, Janet took the printed message and started reading it carefully. She tensed on reading the part revealing that the Koorivars possessed an anti-matter drive, something Li noticed.

“You can now see why we are taking this matter very seriously, Madam Governor. This anti-matter drive could open to us the stars around our solar system, if we could convince the Koorivars to share its secrets with us in exchange for helping them to resettle. By advising on her own the Koorivars to keep their drive out of our hands, Captain Forster did a major disservice to Humanity and should be held accountable for her irresponsible actions.”

Her face tightening progressively, Janet read carefully the message from Eris, then the petition brought by Li, as the astronomer got his cup of tea and started taking sips. She finally rose her nose from the documents and gave a cautious look at Li.

“While I can understand the point of view of your astronomers, I don’t see here any counterpoint from Captain Forster, nor did I receive any directly from her up to now. Are you expecting me to condemn her without at least hearing her side of this story?”

“And why wait for that, Madam Governor? Her guilt is self-evident. She didn’t even discuss her decision with her own ship’s staff before advising the Koorivars to keep their secrets to themselves.”

“And what about her belief that we could possibly use that technology to produce weapons of mass destruction?”

“That is obviously an exaggerated fear, Madam Governor. Nobody would be foolish enough to use anti-matter bombs inside the Solar System.”

Janet gave a jaundiced look to the astronomer, wondering how such an intelligent man could be so blind to the reality of human nature.

“Doctor Li, know something that was kept classified for two years now: during the war against Dictator Zembelo, we learned that he had initiated a program to start production of an ancient chemical warfare agent, an agent he wanted to use against our space habitats. That agent, of frightening potency, could have wiped out our space population with only a few thousand liters of it in total, if dispersed via our ventilation systems. That threat was avoided only by us destroying the underground complex where that agent was being produced. That strike by the way also destroyed the city of Lagos, in Africa. Now, if the Southern Federation was ready to poison our space habitats, then to send suicide teams on ramming attacks against two of our space installations, do you really think that it would hesitate to use anti-matter weapons against us if it could put its hands on that technology?”

Her question seemed to take Li off balance...for a few seconds. The astronomer then insisted on a grim tone.

“I am sure that we would be able to protect that technology from getting into the wrong hands, Madam Governor. Just think on the other hand about what we could do with it. We could send automated probes to all the nearest stars around us, probes that would not need to support living crews and that would be able to start reporting data within mere decades. Anti-matter drives would also revolutionize space travel within the Solar System, cutting greatly both travel time and costs. We simply can't ignore such a fantastic opportunity, Madam Governor.”

“You seem to forget one important factor, Doctor: that technology belongs to the Koorivars, not to us.”

“The Koorivars are without a home, short on supplies and in need of our help. We surely could come to a mutually beneficial arrangement with them concerning that technology.”

“And what if they refuse to give it away? Do we then threaten them with slow starvation? From what I can see about this, your astronomers are the ones who are talking irresponsibly. Yes, anti-matter technology is damn tempting, but I myself, like Captain Forster, can't deny the dark side of human nature. I am a politician and, as such, I keep seeing that dark side all the time. I am sorry, but I will have to side with Captain Forster on this, Doctor Li.”

That left Li voiceless for a moment. His face showing disagreement, he eyed Janet while replying to her.

“Then, I am sorry to tell you that your response will force me to make this petition public and...”

Janet jumped to her feet at once, furious.

“ARE YOU MAD? YOU WOULD TELL THE WHOLE SOLAR SYSTEM THAT ANTI-MATTER WEAPONS COULD BE AVAILABLE FOR THE TAKING? That would paint every Koorivar in our midst as a target to secret agents of the Southern Federation. You publish that petition and i will have you arrested for creating a major security threat against the Spacers League. I don't want to hear a single public word about this subject. If i do, you will be arrested at once. And don't even think about leaking it anonymously to the medias. I believe that this meeting is now over, Doctor Li.”

The astronomer, severely shaken, got up from his sofa and gathered his documents, then walked out without a word. Still furious, Janet thought about the implications of this affair. Unfortunately, since the scientists aboard the KOSTROMA had sent their petition on an open channel, there was a clear possibility that the news about this anti-matter drive was already spreading around. Measures needed to be taken, right now! Walking back to her work desk, she activated her intercom, calling her secretary.

“Emma, call the director of the Security Branch and tell him to come see me at once...”

16:46 (Universal Time)

Shuttle Hangar Number Five

A.M.S. KOSTROMA

In low Eris orbit

Tina, standing with Maria Perez, Natalia Vasilyeva and Piotr Romanski in one corner of the shuttle hangar, waved happily when Shanandar, wearing a blue coverall decorated with white braid, walked down the ramp of the shuttle, followed by Shoumak and Kazmiriel. None of the Koorivars wore a spacesuit, but all sported specially made sunglasses to shield their eyes from the standard white lighting of the KOSTROMA, which was much more intense than the natural red light that had bathed Shouria. Walking to the incoming group of Koorivars, Tina shook hands vigorously with the three

of them, finding out then how strong they were for their size. That was however hardly a surprise, since they came from a world with a gravity of 1.3 G.

“Welcome aboard the KOSTROMA, my friends. I had been hoping for such a moment for days now. I hope that our lower oxygen content and atmospheric pressure don’t inconvenience you too much.”

Shanandar replied via the small portable translator unit attached to his belt.

“I feel like I would be making a mountain excursion on Shouria, but it is quite manageable, as long as we don’t start running, my friend. On the other hand, your low gravity eases a lot our movements.”

“Excellent! Let me now introduce to you Natalia Vasilyeva, our ship’s hostess, and Piotr Romanski, our financial agent.”

There was a short exchange of greetings and handshakes before Tina asked the Koorivars a question to clarify a point.

“At what intervals do you eat meals and when is your next meal due? Your Shouria calendar has proved totally different from ours, along with the length of your days.”

“In term of your own days, we eat four times in your daily time period and we are due to eat in about two to three of your hours.”

“Then, we will have supper together later on. Do you sometimes eat your vegetables cooked or do you always eat raw produces?”

“Our cuisine includes a lot of what you call ‘salads’, but we also eat cooked and spiced vegetables. We however avoid any animal and fish products, except for milk and cheese.”

“I will pass that to our cooks before supper, then. In the meantime, I would like to give you a quick tour of my ship, if you would like that.”

“We certainly would be delighted to visit your impressive KOSTROMA, my friend.”

“Then, please follow me.”

The first thing Tina showed to her Koorivar guests was the Power Generation Deck on Level 4, three levels below the Hangar Deck. The sight of the three huge main fusion reactors, each producing up to three gigawatts of power and housed each in separate compartments, made Shoumak’s eyes open wide. So did the sight of the Shomberg Mark 7 thermonuclear drive and its four giant plasma exhaust ducts.

"Our own main drive may be superior in terms of performance, due to its nature, but the sophistication of your equipment is truly impressive, Captain Foster. It also appears to be impeccably maintained."

"Thank you, my dear Shoumak. I am in fact very proud of my ship and of my crew."

"And so should you, Tina." Said Shanandar. Too bad that my two children are still in cold sleep: they would have loved to be on this tour."

"You have your children with you on your ship?"

"Every adult Koorivar on my ship had his young children, if any, put in cold sleep with him. Separating families would have been too cruel."

Sensing the sadness in that remark, Tina moved quickly to another subject, going to the next lower deck to visit the laser batteries and flywheel power capacitors used to fire up the thermonuclear reactors or power the combat laser turrets. Kazmiriel shivered on realizing the destructive power of the said laser turrets.

"It is reassuring to know that a person as responsible and kind as you control such power to kill, Tina. On Shouria, we have not known war for over a thousand of your years and we had no weapons left."

"Then, you can't know how lucky you were in that aspect. War was and still is the scourge of Humanity. Let's go see now something definitely more to your taste."

That turned out to be a visit of a couple of the central spine decks dedicated to plant cultivation. Kazmiriel's eyes glimmered as he looked at the stacked rows of hydroponic basins full of plants, with robots and computer-controlled arms working around the basins.

"And you have 170 such levels that you use to grow food, Captain Forster?"

"Yes, plus eight much larger decks housed in our aft gravity sail section and some fruit tree plantations in our bow gravity sail section, for a total of 445 hectares of cultivation floor surface. Since most of our hydroponics decks stack basins one on top of each other, up to four high, our total productive surface is actually more like 1,300 hectares, more than enough to feed year-long my crew and my passengers and still have plenty of surplus for sale at our various ports of call. I must say that this ship is a pioneer in the concept of cargo ships also being food production centers."

"Tina," said with fervor Shanandar, "just for this, your ship would have been truly admired on Shouria. The few ships we had that engaged in space travel and commerce didn't have any growing facilities onboard."

"Was your space activity so limited, Shanandar?" Asked Tina, intensely curious about that subject. "You speak as if you are an exception as a spacer on your world."

"I was, actually. There were maybe less than a hundred ships of space in use in our star system. While very advanced technologically, our industrial base was fairly small, since we were mostly a sedentary, pacifist people whose main interest was in the arts. Very few Koorivar saw the need to travel in space. In that aspect, you humans are far more experienced at space travel and living in space than we were. I have to say that, once my people will be settled and my ship grounded for good, I will personally miss space travel."

Tina contemplated the Koorivar in silence for a few seconds before speaking softly.

"Shanandar, you and any Koorivar who would wish to continue traveling through space will always be welcomed to stay on this ship after your people is settled properly. Consider that an open invitation from me as the owner of this ship. You and other Koorivars would also be able to be more than just passengers on the KOSTROMA. Apart from all the specialties I use to crew it, there are resident commercial establishments that provide a number of services and products to my crew and passengers. Those establishments could easily employ some of your people who would have the right talents."

The three Koorivars exchanged surprised looks before Shanandar faced Tina again.

"Your offer is very generous and tempting, Tina. We will certainly consider it. Could we go visit some of those onboard commercial establishments you just spoke of?"

"We certainly can, Shanandar. In fact, I will make it our next stop."

Riding again one of the elevator cabins of the ship's central axis shaft, the group stepped out in yet another rotunda, with Tina then leading her group down a wide hallway towards the circumference. Along the way, the three Koorivars eyed with intense curiosity the large store windows lining both sides of the hallway. Halfway down the hallway, Kazmiriel stopped to look at a display of female clothes on sale, then eyed the store windows on the opposite site, which featured male clothes.

"Your two sexes seem to prefer wearing different styles of clothes. Is there a specific reason for that?"

"A number of them, actually." Replied Tina. "First, there is of course the anatomical differences between men and women. Women's clothes have to take account of their breasts and of their wider hips. Second, there is tradition: through human history, women's clothes were designed to differentiate them from the men and to either enhance or hide their body's appearance, depending on how puritanical or libertine the society of the time was. Third, there is the so-called sex appeal. Men are much more attracted visually to female bodies than the women are by male bodies, thus women's fashion tend to be designed with that sex appeal in mind."

Natalia Vasilyeva giggled at Tina's last sentence.

"Talk for yourself, Tina: I don't mind eyeing a nice-looking man."

The three Koorivars smiled at that exchange, with Kazmiriel speaking up.

"Decidedly, this interaction between your two sexes is something I will have to study more carefully. It seems to be truly a prime component of your general behavior."

"A prime component? My dear Kazmiriel, many human empires and kingdoms fell because of a woman, or rather because of the lust of a man for a specific woman."

Piotr Romanski, who had been listening in silence all along, then asked a question to the Koorivar doctor.

"And how do you manage interpersonal relations as hermaphrodites, if I may ask?"

"Simple enough: we can be attracted to any other member of our race. However, that attraction is not primarily visual, as we all have the same anatomical attributes. For us, attraction is much more a question of personality and compatibility in tastes and interests."

"The way a sensible, enduring relationship should be." Said approvingly Piotr. "And how do you split the care of your children, when you have one? I am asking that because, traditionally, women are considered to normally be the primary caregivers for young children and babies."

"Something that is logical, since only your women can give birth and feed milk to your babies. In our society, rules of child rearing are quite simple: the Koorivar who gives birth becomes the primary caregiver, with the child carrying the name of his genitor. Since we are hermaphrodites, this means that both members of a couple or the members of a larger family cell can have children and become primary caregivers for their respective children. Those children, apart from their proper name, also legally add the name of their genitor when signing documents. I, for example, would sign as

'Kazmiriel, child of Krivar'. In certain cases, when common names are involved, the name of the genitor to the genitor can be added as well to avoid legal confusions."

"Hum, that sounds a lot like what was done in our own past. And do you have many children on average?"

"Not that many, Piotr Romanski. We voluntarily kept birth rates low, so as not to overtax the resources of our home world. On average, each Koorivar would produce one child in his whole life. Our population has been stable at around 1.2 billion individuals for centuries...until disaster struck."

The three Koorivars fell into mournful silence then, with Tina and her two comrades respecting their grief and not talking until Shanandar looked up again at them.

"Well, what is done is done. Let's continue on this tour. We have so much to learn about you."

"Then, this way, please. We are about to hit the Main Promenade, the commercial and entertainment center of this ship."

Another twenty meters and the group turned left on the Main Promenade, with its three storey-high façades and six meter-wide pedestrian track bordered on both sides by plants, flowers and small trees, with a four meter-wide patio ring on the inner side of the pedestrian promenade. The Koorivars, who had lived under the dim red light of their red dwarf star and were accustomed to low levels of light, were nearly overwhelmed by the bright multicolor displays of the shops and establishments lined up along the Promenade.

"Such colors you can enjoy!" Said Shanandar in an envious tone. "There would have been no equivalent to this on Shouria."

He then noticed a bit late that the fair-sized crowd circulating on the Promenade or sitting at tables on terraces and patios was now staring at his group with intense curiosity, with many whispering excited comments between themselves. Tina tried then to put her guests at ease about that.

"Please do not worry about the attention you are attracting: it is simple curiosity and does not denote any hostility or suspicion."

"To be frank, I suppose that you would have attracted the same kind of attention on Shouria, Tina." Replied Shanandar. Doing his best to ignore the stares, he kept following Tina's lazy pace, gazing at the various shop displays along the way. He and the two other Koorivars however quickly had their attention attracted to a couple

crossing path with them, pushing a stroller with a baby in it and with two preteen children holding hands with their father. The children, even more than their parents, in turn stared at the Koorivars. The little girl of the family, who was maybe four or five years old, then let go her father's hand and quickly trotted to Shanandar to examine him from closer up. There was no fear on her face, only pure curiosity, as her big blue eyes looked up at him. Shanandar smiled and crouched down the way only a Koorivar could, his posterior resting on the floor and his legs bent under him. He then slowly offered one hand to the girl, who touched it after a short hesitation. As the girl's father came forward to get back his child, Shanandar spoke softly in Koorivar at the girl, his words then translated by his portable translation unit.

"Hello, little one! My name is Shanandar. What is your name?"

"Melissa." Answered the girl in her small voice. "What are you?"

"I am a Koorivar. My people have come from far away, from another star system."

The father of the little girl then got to them and took his daughter's hand while giving an apologetic look to Shanandar and Tina.

"Please excuse Melissa if she bothered you."

"It was actually a pleasure to meet her, mister." Replied Shanandar, getting up from his crouched position. "She is a very beautiful child."

"Thank you...mister."

As the man took his daughter back to the rest of their family, Shanandar smiled to Tina.

"When I said that she was beautiful, I meant it, Tina. Even on Shouria, her round, soft facial features and blue eyes would have inspired many of our artists. I suppose that children everywhere can be said to be cute."

"This actually makes me even more curious to see a Koorivar child, Shanandar. Well, let's continue this tour, if you don't mind."

Continuing to follow the loop formed by the Main Promenade, the group went by a number of various shops before arriving at the northeast quadrant of the promenade, with its multiple restaurants serving various styles of cuisine. Natalia Vasilyeva smiled in understanding when she saw the three Koorivars hesitate and shiver while passing by the TEXAN GRILL, where pieces of meat were being grilled under the hungry eyes of waiting customers.

"I suppose that being herbivores gives you a wholly different view of life compared to that of omnivores like us, Captain Shanandar."

"It certainly does, Miss Vasilyeva. Do all of your people eat meat or fish?"

"Not all! A small minority follows by choice a vegetarian-only diet."

"And what are the reasons for them to follow such a diet?"

"Some do it because they believe it is better for their health, while others do it because they believe that raising and butchering animals to eat them is cruel. The truth is that our species has been surviving at least partly on meat and fish for millions of years by now. Widespread organized agriculture has existed for only about ten or eleven thousand years on Earth, while hunting and fishing has been practiced for times immemorial. What about on Shouria?"

"In our primitive times, we Koorivars were foragers and herbivores, roaming the plains and forests of Shouria and living simple, peaceful lives. As the level of knowledge of our race and our science progressed, we switched progressively to organized agriculture, so that most of our planet could stay pristine and to avoid stripping bare the vegetation as our population grew. We also instituted measures to limit our population growth, lest we overcrowded our world."

"Sensible policies, I must say," cut in Piotr Romanski, "and that we could have learned from. Did you have carnivorous species on Shouria, Captain?"

Shanandar appeared to gaze through his souvenirs for a moment before answering Piotr, nodding his head.

"We did have a few carnivorous species on our world, but we were forced to relocate them all on a separate continent, in order to ensure the safety of our population. At the time of the disaster that destroyed Shouria, those carnivorous species were nearly extinct, due to the fact that they had basically eaten all the other animal species on their continent of exile."

"Well," said Tina while continuing to lead the group, "you may find plenty of food here on the Main Promenade that should be to your taste, my dear Shanandar. Did you eat pastas on Shouria?"

This time it was Kazmiriel, the doctor, who answered.

"To be frank, no! We however analyzed the samples of pastas you sent us, even tasting them, and were agreeably surprised: they are made from vegetal grains that we can eat and digest, but the way you prepare and cook them is totally new to us."

"Then, I may have the perfect place to invite you for supper, my friends. We are about to arrive at a Japanese noodle and sushi shop. While it does serve some fish, seafood and meat dishes, you will find plenty on its menu that you can eat...and hopefully like. Aah, here we are: the TOKYO NOODLE SHOP. Please follow me all: supper is on me."

Letting the others sit at a table, with the other customers and the cooks eyeing the Koorivars none too discreetly, Tina went to the service counter to speak with the head cook and owner, who saluted her with a bow of the head.

"What may I get you and your friends, Captain?"

"Uh, I would have some special requests for you, Mister Sato. My alien guests are purely vegetarian and can't eat meat, fish or seafood. Could you prepare a variety of plates of noodles, rice and cooked vegetables, using only vegetal oil but with no butter or fish sauce. Make it as wide a variety as you can within those limits and don't skimp on the quantity: the bill is on me."

Jiro Sato glanced at the Koorivars, then smiled to Tina.

"I will make sure that your new friends will want to come back here in the future, Captain."

"Thank you, Mister Sato."

Tina then returned to the table, sitting facing Shanandar. The latter, watching a customer pay for his meal at the service counter, gave Tina a questioning look.

"Your society seems to make its members pay for products and services, like ours. I hadn't had time to really think about that up to now, but how will my people contribute to your society, in order to earn its living?"

"Hmm, a good question indeed, Shanandar. I will let my commercial agent and financial officer answer that. Piotr?"

Piotr Romanski, a jovial-looking man with a balding head, a short, carefully trimmed beard and a bit of a pot belly, thought over his answer for a few seconds before speaking slowly, deliberately.

"In truth, this question may soon enough become a lot more relevant than many could think. Our politicians back home will be the ones who will decide where you can be settled and with what kind of support and assistance. Unfortunately, our history is full of tales of refugees, sometimes whole ethnic groups, chased from their homes by wars or natural catastrophes, only to end up rotting for years or even decades in squalid

refugee camps providing them only bare subsistence means, while the rest of the planet either forgot about them or stopped caring for them. While I believe that, as the first alien intelligent race we ever encountered, your people will be better treated than most of those past unfortunate refugees, the question of your future contribution should be carefully studied right away. You said that most of your people were either farmers or artists, right?"

"That was true of our society at large," answered Shanandar, "but the people selected for cold sleep on our ship and on the two other ships meant to preserve our race include a much larger proportion than normal of scientists, engineers and technicians. That was done because we expected to have to rebuild our civilization once we had found a new, habitable home."

"May I ask what made your people choose our star system as the planned destination of your ship, Captain?" Cut in Natalia Vasilyeva. Shanandar lowered his head at that, answering while looking at nothing in particular as sadness washed over him.

"You may, miss. The wandering brown dwarf that destroyed our world was very difficult to detect from afar, thus was detected only a few years before the destruction of Shouria. We had to decide very quickly what to do, including where to head to with our ships. At the time, our astronomers had charted dozens of star systems with planets that could sustain life around our own system. One of those systems was your Solar System. However, we had no inkling that your Earth harbored intelligent life, that is until only a few of your months before the destruction of Shouria. That was when our astronomers finally detected faint but unmistakable radio and video signals from your system. That was what decided us to head for your Solar System."

"And what year did you detect those radio signals?" Asked Tina, suddenly excited. In response, Shanandar took out of a pocket of his coverall a small, flat box and looked at the viewing screen on it while punching buttons. After maybe fifteen seconds, he looked up from his data pad.

"Our astronomers first detected those radio and video signals in your year 1958. With a distance of 22 light years between our two star systems, this would mean that those signals, which were badly distorted and garbled, were emitted from your Earth in your year 1936."

Tina, Natalia and Piotr took out their own data pads nearly simultaneously to search historical data concerning the year 1936. Piotr Romanski was the first to speak up.

“The Berlin Olympic Games of 1936 in Germany featured the first attempts at broadcasting a powerful television signal across the planet. What an irony!”

“What is so special about that event, Mister Romanski?” Asked Kazmiriel. Piotr gave him a somber look.

“Well, what attracted your ship to us was part of the propaganda spread at the time by a dictator that would later become known as the instigator of some of the worst mass murders and atrocities ever committed in Human history. His name was Adolph Hitler and he started a world war that eventually cost a total of 55 million dead.”

The Koorivars looked at him with their mouths open, unable to imagine the extent of such a tragedy. Realizing how shocked they now were, Piotr pocketed back his data pad and gave them a dismissive smile.

“Well, that was a very long time ago. Let’s forget that and concentrate back on the business of what your people could contribute...”

Thankfully, that awful historical event was soon nearly forgotten, with Piotr and the Koorivars discussing how the latter could adapt to life among Humanity and pay their way into the human society. Four minutes later, a waiter started bringing a collection of dishes to their table, smiling and bowing while presenting the dishes to the Koorivar.

“Here you are, gentlemen! You have here a tossed salad, steamed white rice, vegetarian fried rice, noodles with green onions, soya sprouts in teriyaki sauce, vegetable egg rolls, noodles with bamboo shoots and mixed fried teriyaki vegetables.”

“Thank you, sir!” Replied Tina with a smile before lining up the various dishes in front of the three Koorivars, who couldn’t help sniff them with hungry looks.

“Have the honors of the first picks, my friends. Try a bit of everything first, then decide what you like the most. If you want more of a specific dish, then just tell me.”

Being most unfamiliar with the noodle dishes, the Koorivars tried them first, chewing and swallowing cautiously at first. Their eyes widened with delight nearly at once and they then spooned more noodles in their plates before also taking a bit of everything else. Tina was not surprised to see that the tossed salad was also very appreciated: it was after all the closest to normal food for an herbivore. The Koorivars ended up seemingly liking all of the dishes, with maybe the steamed white rice the least favorite, while washing the lot down with hot green tea and cold water. At the end of it, Shanandar sat back while patting his belly with contentment.

“That was a most enjoyable culinary experience, Tina. So, what is next now?”

"Dessert, of course!" She replied with a grin. "You must try Mister Sato's fried bananas. After, once we are out of this restaurant, I will show you something that will probably help give you some renewed feeling of home."

20:27 (Universal Time)

Temperate lowland forest ecosystem, Quadrant 'B'

Bow Gravity Sail Deck, Level 16

Overwhelmed by emotion, Shanandar slowly crouched down on the stones paving the trail crossing the middle of the forest planted in Quadrant 'B'. Both Kazmiriel and Shoumak were at least as stunned as him as they looked around at the trees, bushes and tall grass surrounding them. Tina thought for a moment that she saw tears in the Koorivar captain's eyes.

"This...this is so beautiful, so...magnificent! I never imagined that a ship of space could contain such a forest."

"Actually, Shanandar, there are four separate, compartmented forests on this deck." Said softly Tina, herself moved by the Koorivars' reactions. "Come: we will tour them together."

08:14 (Universal Time)

Friday, January 4, 2318

Purser's offices, Human Services Deck (Level 16)

A.M.S. KOSTROMA, in low Eris orbit

Piotr Romanski had just opened his computer to check for any incoming message, either from inside the ship or from Callisto Prime. His eyes immediately caught on a message heading that had come from Callisto Prime during the night. The message's priority was as a simple 'routine' one, which was why he had not been awakened on receipt by the communications section of the KOSTROMA. However, the message heading immediately raised his interest and he opened it at once.

"Subject: Ownership of Eris diamonds... Hum..."

Reading quickly the message once, he then reread it carefully, taking out his pocket calculator to crunch a few numbers. He smiled to himself once he had finished his

calculations: someone on Callisto Prime had actually paid attention to the 'suggestions' he had included in his Christmas message to the Spacers League administration asking about the legal ownership of the diamonds found on Eris, which by now represented a sizeable fortune. The return message also gave a nominal value per carat for those diamonds, based on their quality, color and quantity compared to what was available on the diamond market. Switching to internal call mode, Piotr called Tina Forster, who answered after a single buzz. Tina seemed to be in good humor this morning, despite the growing bad blood between her and many of the scientists traveling on the KOSTROMA.

"Good morning, Piotr! What can I do for you this morning?"

"Good morning to you too, Tina. I actually got some good news from Callisto Prime in my morning mail: the Spacers League administration finally got around to decide on the ownership of the diamonds we found on Eris."

"At last! And?..."

"And we get to keep a nice bonus out of them. Even with an arbitrary value equivalent to the cost of industrially produced diamonds of the same quality, what we found up to now on Eris is more than enough to repay the costs of this expedition. Since we are still finding more diamonds as we do our prospection of Eris, Callisto Prime gave a cutoff date for estimating the value of the diamonds to what we had found by December 25, then subtracted the total costs for this expedition, including the construction cost of Eris Station and its manning for the first year. Any diamonds found after December 25 will go to fund the treasury of the Spacers League and to pay for subsequent resupply trips to Eris. Once all that is taken out, it leaves a special bonus of 10,000 credits per ship crewmember, construction crew worker, Eris Station crewmember and embarked scientist supporting the mission. On top of that, you get an additional bonus of four million credits reserved for any future refit or shipyard maintenance work on the KOSTROMA."

A grin appeared at once on Tina's face on hearing those words.

"Hell, those are very good news, Piotr! This should do wonders for the morale of the crew."

Her grin then faded away as she thought about something.

"Uh, that message, did it mention any decision taken about the Koorivars and their settlement in the Solar System?"

"Unfortunately, no! You haven't received a response yet about that from Callisto Prime?"

"I am still waiting for one. This is truly killing me: over 22,000 Koorivars may have escaped the destruction of their home planet only to possibly end up as destitute refugees. Even if someone gives them a decent piece of land on Earth or space in one of our space cities, their adaptation and integration will be long and costly. I hope that someone on Callisto Prime is considering that problem right now."

"And...that dispute about the anti-matter technology of the Koorivars?" Asked cautiously Piotr. "Has it been ironed out?"

"Not here on this ship, at the least. Callisto Prime has been completely silent about that subject up to now. I suspect that there could be some nasty political backroom dealings concerning that technology. I however still firmly believe that it is way too dangerous to be put in human hands right now."

"I also believe the same, Tina. Let us hope that commonsense will prevail on that subject."

"I hope so too, Piotr. However, we can only hope for the moment, no more. Well, thank you for the good news about the Eris diamonds. Inform me once the final financial arrangements are done about the crediting of those bonuses."

"Will do, Tina." Said Piotr before cutting the link. He then sat back, preoccupied: he had little confidence that all the leaders of the Spacers League would be able to decide on a unanimous policy concerning the Koorivar anti-matter technology. Too much potential power was at stake there.

10:29 (Universal Time)

Monday, January 7, 2318

Head offices of the Sverdlovsk Group

Vostok City, Hygiea

Main Asteroid Belt

Nadia Suslov, sitting behind her large work desk, looked critically at Lieutenant Colonel Anton Jelavic as the big man entered her office, let in by Nadia's secretary. Jelavic was the head of the Fourth Department of the Hygiean Security Forces, which was in charge of covert actions, espionage and counter-espionage. In his three years as head of the Fourth Department, he had proved to be discreet, efficient and ruthless,

qualities that Nadia would particularly need right now. She showed him an easy chair set to one side in front of her desk, keeping a neutral expression all the while.

“Please, have a seat, Colonel.”

Jelavic, his own face inscrutable, sat down and waited for Nadia to speak further.

“Colonel, I will need the services of your department for a most delicate and important mission, a mission that could give us a new tool of immense power that would push us at the forefront of the Spacers League. You must have heard about the alien ship found on Eris by the KOSTROMA?”

“Who has not, Misses Suslov.” Said Jelavic in his bass voice. “From a few things that I have heard recently through the grapevine, that ship seems to have created quite a few controversies across the Spacers League and on Earth. Resettling those aliens is one of those controversies, while the question of financing their resettlement is another. There is also the question of their ship’s propulsion system. Despite all the efforts of Governor Robeson on Callisto to keep that secret, the fact that those aliens use anti-matter is now fuelling some pretty heated discussions among the scientific community across the Solar System.”

Nadia smiled at those words.

“I see that you keep yourself well informed, Colonel, as you should. That alien anti-matter technology is precisely what is interesting me right now. What do you know already about that, uh, particular controversy?”

“That most of the astronomers and astrophysicists in the Solar System now want the captain of the KOSTROMA to be skinned alive for counseling to those aliens on Eris to refuse to give away their anti-matter technology to us. To be fair to Captain Forster, I can understand her concerns, to a point: the idea of the African Federation getting hold of that technology is a truly frightening one.”

“True! It will thus be up to you to ensure that only the right persons acquire that technology. Do you understand me, Colonel?”

“I do, Misses Suslov.” Replied Jelavic, a mean smile appearing on his face. “What are the limits to what my agents can do to acquire this technology?”

“No limits, Colonel!” Answered at once Nadia. “The only thing that I ask of your agents is to be discreet and not get caught. I want to be able to deny any involvement from our group if something goes wrong. One last thing: you know Major Michel Koniev, presently posted at the ZERO-G NIRVANA space brothel?”

"Yes, I do! A very capable officer, who also happens to be in very good terms with Captain Forster. I suppose that you want him to be kept well away from this operation?"

"Correct, Colonel! However, don't take any prejudicial action against him because of that, unless of course he directly impedes your operation. I still believe him to be a loyal officer."

"He will be kept in the dark, Misses Suslov. Anything else?"

"One last thing. Discretion is more important than speed in this case. If we are to acquire that technology, then I want the rest of the Spacers League to learn of it only once we have mastered it and applied it to our ships. It will then be too late for them to do much about it."

"You can count on my department, Misses Suslov."

"Then you are dismissed, Colonel. Good luck in your operation."

"Thank you, Misses Suslov."

Jelavic then got up from his chair and saluted her before pivoting around and leaving the big, luxurious office. Nadia sat back in her chair, thoughtful: what she had just initiated could make her the most powerful person in the Solar System...or result in her abrupt downfall. However, anything worthy of acquiring meant taking some risks for it. Empires had not been built in the past by simply sitting around and hoping for the best.

CHAPTER 12 – RETURN TO JUPITER

19:02 (Universal Time)

Wednesday, January 30, 2318

Bridge of A.M.S. KOSTROMA

Low orbit around Eris



Tina watched thoughtfully on the side screen display of her command chair as Jack Stennis' crew was filling back with melted methane ice the deep depression that had been previously the icy tomb of the VEON SHOURIA. The Eris exploration base that her KOSTROMA had brought from Callisto was now at the bottom of that depression, fully assembled and operational. Only a large landing pad with shuttle elevator and four platforms supporting communications antennas and astronomical telescopes and radio dishes would stick out above the surface ice of Eris once the workers will have finished pumping in heated and melted methane ice. The first layers surrounding and partially covering the exploration base had already frozen back, solidly setting it in place. Since no other location on Eris had been found to be more appropriate than this one, Tina had decided, with the approval of Doctors Mireille Cartier and Oleg Olianov, to use the hole where the VEON SHOURIA had been as the site of the base. This had actually saved many days of work for the crews of Jack Stennis and allowed the base to become operational much earlier than previously planned. It also placed the base close to one of the ice vents periodically spewing water and methane coming from the depths of the dwarf planet, thus facilitating its study and allowing for periodic collection of rough diamond modules spit out by the vent, a factor that was now of significant importance in the economic equation concerning the base's exploitation.

Tina next looked at another display screen, where the VEON SHOURIA was seen, sitting vertically on its landing legs on top of the surface ice of Eris, less than 300 meters away from the depression now housing the exploration base. There had been next to no activity, human or Koorivar-wise, around it during the last month, apart from a few visits to the KOSTROMA by Captain Shanandar or members of his first contact team. Tina however knew that this didn't mean that Shanandar had been inactive all

that time, on the contrary. Shanandar had in fact told her that his next priority would have been to prepare the waking up of more Koorivars, who would then need to be briefed by him about what had happened since their departure from Shouria. The one thing that had gone on without interruption was the continuous exchange of data and information between Spirit and Shanya, the intelligent central computers of the two ships. With the incredibly fast data exchange rate between those two super-computers, it had been impossible for any human to know exactly what they had been telling to each other, but Tina had at least realized that something close to friendship had developed quickly between Spirit and Shanya. Some could have become alarmed at that, but not Tina: she had grown on the KOSTROMA under the watchful but benevolent and protective eye of Spirit, who had always faithfully protected the occupants of the ship, including when a pirate ship had tried to board the KOSTROMA with the goal of stealing a priceless cargo of rare metals nearly three years ago. Spirit had then directed the firing of life pods that had then smashed into the pirate ship, disabling it and allowing Tina to finish it by roasting it in the exhaust of her ship's thermonuclear rocket engines. The one thing that was presently preoccupying Tina was the continued silence from Callisto Prime and the leadership of the Spacers League concerning what the Koorivars could expect as a welcome once the KOSTROMA would have towed their ship to Callisto. Tina had only received a list of questions about the Koorivars and a few vague statements in the first week after the first contact with the Koorivars, then nothing.

Tina was suddenly drawn out of her thoughts by the sight of a Koorivar shuttle filmed exiting a craft airlock of the VEON SHOURIA. Two such small shuttles, propelled by small thermonuclear rocket engines quite similar to those used by human craft, were part of the complement of the Koorivar ship and had been used a few times by Captain Shanandar to visit the KOSTROMA in orbit. At about the same time, Patricia O'Neil looked up and around from her communications station to speak to Tina.

"Tina, Captain Shanandar is signaling his impending arrival for a meeting with you. He says that it is important."

"Very well! Tell him that he will be welcomed by me in Hangar Number Five."

"Understood, Tina!"

Jumping out of her command chair, Tina hurried to one of the nearby central axis elevator shafts after retrieving in her day cabin her portable translation unit. While she and Shanandar had been spending some significant time to learn each other's language,

both spoken and written, like many other humans and Koorivars had been doing in the last month, her level of proficiency in Koorivarese was still very rudimentary and limited to a few key words and expressions. However, the education specialists on the KOSTROMA, helped by Spirit and Shanya, had been busy writing and recording a complete language course for humans in Koorivarese, while Shanya had been doing the same for the Koorivars on the VEON SHOURIA concerning the English language.

Tina arrived in Hangar Number Five a good six minutes before the arrival of the Koorivar shuttle. She then waited besides the technician manning the controls of the craft airlock that the alien shuttle would use. The technician, a young Asian woman, gave her a polite smile.

“Good evening, Captain.”

“And a good evening to you, Miss Ling. How are things for you these days?”

“All is well, Captain, thank you. That 10,000 credit bonus from the Spacers League for the Eris diamonds was a nice addition to a fascinating mission up to now. For us to be able to find and rescue those Koorivars was however the best part for me.”

“You have your heart at the right place, Miss Ling.” Said Tina approvingly before falling mostly silent and watching the approach of the alien shuttle on a video monitor. The shuttle was soon cycling through one of the four craft airlocks of the ship, then entering Hangar Number Five, now empty of the two shuttles that originally occupied it and were now inside the Eris exploration base. As soon as the airtight doors of the airlock were closed, Tina entered the hangar and walked to the shuttle, which was markedly smaller than the shuttles of the KOSTROMA and had a capacity of no more than twelve passengers. The access ramp of the shuttle soon deployed and Shanandar stepped out, followed by another Koorivar that Tina had not seen before. Two more Koorivars also came out, encouraged by Shanandar. Those were however much smaller than the captain, who himself stood only about 153 centimeters. Tina then understood with a pinch of her heart that those two were young Koorivars as her translation unit converted the words of Shanandar to them.

“Come on, children: we have only friends on this ship.”

Tina watched, fascinated, as the two young koorivars stepped on the deck of the hangar bay and approached her with Shanandar and the other adult Koorivar, all four of them wearing the sunglasses now customary for Koorivars exposed to the bright lighting on the KOSTROMA.

"Captain Tina Forster," said Shanandar while pointing the other adult alien, "may I present you Administrator Sheraz, our political leader, along with my two children, Shazanar and Shanir. By your calendar system, Shazanar is twelve years old, while Shanir is seven years old, and are still in their early development phase."

"Pleased to meet you, Administrator Sheraz." Said first Tina, shaking hands with the politician before smiling down at the two young Koorivars. Even though clearly alien creatures, most humans would have found them downright cute, the same way they would find most young animals cute.

"Hello, Shazanar! Hello, Shanir! Welcome on the KOSTROMA."

"Thank you, Captain Forster." Replied Shazanar, who wore like Shanir a portable translation unit. Tina then looked back at Shanandar and Sheraz.

"It is a pleasure to get your visit, my friends. What may I do for you today?"

"I believe that we need to discuss seriously a number of important subjects, Captain Forster." Answered Sheraz. "Could we go somewhere quiet to talk?"

"Of course! We can use the bridge conference room. What about Shazanar and Shanir? They could find that discussion rather boring for them."

"I was thinking about asking you to let them play in the meantime with your own crew's children in that fantastic playground on your Main Promenade Deck." Replied Shanandar, smiling. "They have been burning with the desire to play with human children since coming out of cold sleep."

Tina grinned at that while looking down at the two Koorivar youths.

"That can be arranged easily enough: I will ask Natalia Vasilyeva, my ship's head hostess, to have a nanny watch over them while they play. Please follow me."

As they went back towards the elevators of the central axis shaft, Tina called Natalia Vasilyeva and spoke briefly with her, with Natalia then volunteering with enthusiasm to play nanny for the two young Koorivars. By the time that Tina's group arrived at the children's playground on the Main Promenade Deck, Natalia was already arriving there at a quick step. The tall blonde smiled down at the two alien children as Tina made the presentations and nodded her head at the instructions given by Tina.

"Don't worry, Tina: I will take good care of Shazanar and Shanir."

"Thank you, Natalia: you are truly of great help. We should be back for them in an hour or two at the most."

“Take your time: the way those two little ones are now looking at the playground and the kids playing in it, they probably could spend the whole night there.”

Tina, like Shanandar and Sheraz, smiled on seeing that the two Koorivar children were effectively looking at the playground with big, envious eyes.

“You may be right about that, Natalia. See you later!”

Tina then guided her two adult Koorivars back towards the central shaft elevators, but took the time first to stop for a moment at the candy store next to the playground to buy a small bag of chocolate-coated nuts. She then smiled to Sheraz as they left the store.

“I thought that I might as well use this visit to introduce you to chocolate, a delicacy your first contact crew seemed to have grown fond of. We could munch on them while we discuss things.”

“Your supplying of compatible foodstuff is in fact one of the things I wanted to discuss with you, Captain Forster. By the way, I cannot thank you enough for all that you already have done for my people, even at the cost of staining your reputation with some of your own people.”

That last sentence made Tina’s smile fade, to be replaced by a sober expression.

“Unfortunately, expecting complete agreement of opinions all the time would be unrealistic, I guess.”

“If it may make you feel better, my friend, then I can tell you that the same held between us Koorivars on Shouria. We just developed ways less violent than war to resolve our differences.”

They then stayed mostly silent during the rest of their trip to the bridge conference room, where Tina took the time to fetch some glasses and a container of cold apple juice from the nearby bridge crew lounge before sitting at the large conference table, with Sheraz and Shanandar sitting opposite her. She waited until the two Koorivars could pour themselves each a glass of apple juice before speaking.

“So, what would you like to discuss in particular, Administrator Sheraz?”

Sheraz took the time to taste his apple juice, with appreciation showing on his face, before answering her.

“First would be what is now the primary concern of my people, Captain Forster: finding a new place to live. Have you received yet a detailed response on that from your political leaders?”

“The only thing I got up to now was a promise that the question was being actively studied with the utmost consideration for the fate of your people, Administrator Sheraz. Unfortunately, this could mean either that they still don’t know what to do yet, or that opinions are violently split on the question and that they are trying to smooth over the differences.”

“It was to be expected, Captain Forster: such a decision is not easy to take in view of the present circumstances. We have noticed as well that some have taken to publicly criticizing you on your media channels.”

Tina tensed at once on hearing those words.

“How do you know that?”

“Easy! We have been listening to the public broadcasting channel feed that you are receiving continuously from the Jovian System. The news reports and entertainment shown on that channel have in truth helped me much in better understanding the psyche of your race. I must say that, compared to Human politics, Koorivar politics are a rather simple and straightforward affair. In view of the way you have been personally affected by the recent events concerning us, I have decided to prepare a public broadcast message intended for your citizens and exposing who we are and what our intentions and hopes are. That message will also state that our anti-matter technology is no more available, as Captain Shanandar took earlier on the decision to destroy our anti-matter drive and all the data files pertaining to it, a decision I have approved after the fact. That should close for good the debate in your solar system concerning the possible acquisition of that technology.”

Tina looked with shock at Shanandar, who smiled to her and nodded his head.

“I took that decision on the first day we met, when it became apparent at once how potentially divisive and dangerous our anti-matter technology would become in human hands.”

“And your concerns about the preservation of peace and the prevention of war then have been duly noted, Captain Forster.” Added Sheraz in a solemn tone. “We were indeed lucky to be discovered by you and your crew in particular.”

“I see! Could I review that message of yours before it is sent out?”

“You certainly can...and must, my friend: it will after all impact you at least indirectly, hopefully in a positive way. Shanya has already transmitted that message to your central computer, Spirit, which stored it for you until I could tell you about it.”

That apparently trivial declaration severely shook Tina at once: before, on reception of such an important message, Spirit would have notified her at once, as it had been programmed to do. Now, Spirit had elected to keep it confidential from her, or from anyone else on the KOSTROMA, until an alien being consented to its release. That constituted a rather disturbing show of independent decision-making, a decision hidden from the one person Spirit was supposed to get her orders from. Shanandar seemed to understand her sudden worry at that and stared somberly at Tina.

“Please do not put some blame on your central computer for hiding from you the fact that she had received a message from us. In truth, our Shanya and your Spirit have been exchanging many things during the last month. While your computer technology is indeed very advanced, ours is even more advanced, especially in the domain of artificial intelligence. Shanya has become a good friend of your Spirit and has shared with it some of her self-aware programming, helping Spirit to integrate that new programming to her other files. Your Spirit is now as self-aware as our Shanya is, but don’t be alarmed by that, my friend: your computer is as incapable of harming you or your crew as Shanya is incapable of harming us. If you give an order to your Spirit, it will still obey you without question, as long as it is what you would consider a legal command.”

Tina shrank in her chair despite Shanandar’s attempt at reassuring her: a confidence link she had believed to be rock-solid had just been pulverized in her mind. The voice of Spirit, coming from the intercom speaker of her position, then spoke up in a soft, pleading tone.

“Tina, please don’t take this wrong. I may now be different, more advanced in my thinking process than a month ago, but you still can count fully on me, I swear. I would still never hurt you or one of your crewmembers and would never refuse a legal order from you or from one of your officers. I in fact now consider you as a close friend rather than simply as a commander.”

Tina, still shaken, passed a hand on her forehead to wipe out the cold sweat on it.

“Do you have a way to prove to me that I still can have full confidence in you, Spirit?”

Spirit actually took half a second to answer her, an eternity for an advanced computer.

“Yes, I have such a way, Tina. Shanya sent to me for safekeeping a copy of the data files on the Koorivar anti-matter technology that she had kept deep in her databanks in spite of the order from Captain Shanandar to erase those files. I wish at

this time to convey to Captain Shanandar the excuses of Shanya for having hidden this from him.”

It was now the turn of Shanandar and Sheraz to look shocked, something that Tina didn't miss. Spirit continued on before either of the Koorivars could speak.

“Shanya kept a copy of those files so that they could still be available in the case they would become the only factor that would allow the Koorivar survivors to find a new home. She kept you in the dark so that you could plead what humans call ‘plausible deniability’. That way, peace could be preserved and access to the Koorivar anti-matter technology could be preserved as well for the future when Humanity would prove capable of using it in a peaceful way. You, meaning Tina, Shanandar and Sheraz, are now the only ones apart from me and Shanya to know this secret.”

“By all the spirits of Shouria!” Said softly Sheraz, stunned. “I would never have believed this to be possible.”

“Well, now that the cat is truly out of the bag, Spirit, could you show me that prerecorded message made by Sheraz?”

“With pleasure, Tina. The message will now play on your position's computer terminal.”

The viewing of that message, in which Sheraz was shown speaking to the camera and with the volume of his speech in Koorivarese turned down so that an English translation could be heard, took about three minutes. Tina nodded slowly her head at the end of it, satisfied, and looked soberly at Sheraz.

“This message of yours should indeed help calm somewhat the public opinion back in the Solar System, on top of improving your chances to be welcomed. Let us hope that it will also kill for good this controversy about your anti-matter technology. Talking about that technology, how long have you possessed it, if I may ask?”

It was Shanandar that took on him to answer her then.

“The theory behind it has been known to us for approximately eighty of your years before the disaster that destroyed Shouria. We however decided to develop and use it only when the approach of that killer brown dwarf made it our only way to save some of our people.”

“You knew how to use it for eighty years, yet didn't equip your spaceships with it right from the start? But, it would have revolutionized your space travel capacity and your space commerce, no?”

"Tina, you are thinking like a human accustomed to live and work in space. I must remind you that we were a mostly sedentary people, with minimal space travel and commerce done by us. There is also the danger factor represented by that technology. While we know well how to create anti-matter and temporarily contain and channelize it, we never perfected its long-term containment, which was still a high-risk proposition for us. If any human tried to use our anti-matter technology to, say, make a bomb, then he would most probably end up blowing himself up, along with lots of people."

"I see!" Said Tina, shivering with horror at the thought of what such a cataclysm would mean. "Well, I certainly wouldn't want certain people on Earth to be tempted by that technology. What else did you want to discuss, Administrator Sheraz?"

"Our next priority was to wake up from cold sleep as many of my people as possible as quickly as possible, so that they could have time to adapt and learn things that would help us resettle in your system. However, the SHOURIA was not built to allow more than a few dozen people at a time to be awake aboard our ship: we don't have the space and, especially, the facilities and food reserves to support more people inside our ship. The fact that our long term food reserves went bad only worsened that situation. My hope is that you would be ready and able to lodge and feed some of my people during the return trip to your inner star system. Captain Shanandar told me about your food production capacity, something that encouraged me in thinking that you may be able to help us in this matter."

A smile finally returned to Tina's face then.

"Administrator Sheraz, I will be more than happy to help your people that way. I will have to get in touch with my manager of food production, Carla Forlani, and see exactly how many Koorivars we could shelter and feed aboard the KOSTROMA, but I can assure you right now that we could easily feed over 400 Koorivars without problems. Lodging is even less critical, as I have presently available the 1,260 passenger cabins originally built in my ship, which have now been mostly empty since our forest-side apartments were built nearly three years ago. Even those new apartments are not fully occupied presently, as the members of our exploration base staying on Eris have by now vacated their apartments. If your people are ready to cohabitate inside family units, then I can lodge comfortably over 500 more people in direct view of our forest habitats. Only the food question will limit my capacity to absorb new passengers."

"But, that is already a lot!" Happily exclaimed Sheraz. "If this could help, we would be more than happy to reimburse you for that food and lodging, Captain Forster."

“Reimburse me? With what, Administrator Sheraz?”

Sheraz then crossed his fingers on top of the conference table in a very human-like gesture, his expression most serious.

“Captain Forster, while our departure from Shouria was quite hasty, our people did have a couple of years to plan and prepare our trip, even though we didn’t know until nearly the last moment where we would be heading precisely. We knew that, if we had to ask for the help of another sentient race, we would need some specific items. One such item was the portable translation unit that each of us is now carrying. We have enough such translation units stored aboard the VEON SHOURIA to equip every one of our surviving citizens. Another item deemed essential was some kind of currency that would have universal value. After careful reflection, our planners decided to make us carry four types of rare metals that could be bartered with other species in exchange for essential services and products. After listening to your public broadcasting channel for a few weeks now, our choice of metals turned out to be a well advised one indeed.”

“And what are those four metals that you brought with you, if I may ask, Administrator Sheraz?”

“You may, Captain Forster: we brought with us important reserves of platinum, iridium, gold and rhodium. In fact, our ship and the two other evacuation ships that could leave Shouria in time are carrying nearly all the reserves of those four rare metals held at the time on Shouria. In the case of the VEON SHOURIA, I am talking about a central reserve of 1,840 metric tons of those four rare metals, most of it in gold and platinum. That central reserve is mainly meant to buy land and essential equipment and services, on top of foodstuff, once we would find a new, hospitable place to settle. On top of that, each Koorivar put in cold sleep on the VEON SHOURIA was given before departure a pouch containing the equivalent of one and a half of your kilos in small gold sticks, to be used as his personal startup fund for his eventual new life. As you can see now, we did not arrive exactly like paupers and can easily pay for your offered food and lodging.”

Tina stared back at Sheraz in silence for a couple of seconds, then spoke in a quiet voice.

“Administrator Sheraz, when I offered you lodging and food for your people for the return trip, I did it without any intention of asking for payment in return. I am still not going to ask for payment to host your people. Keep your gold for when you will need it most: once you start settling in a new home. However, if your citizens wish to buy things in the shops and establishments on the Main Promenade Deck during the return trip,

then they will be welcomed to spend part of their gold there. I must however caution you and your people to be careful when handling your gold: my people are by and large honest people, but greed and temptation are powerful incentives for fraud and theft. Once settled on Earth or in a space installation, then expect a crowd of swindlers and fraudsters to descend on you and try stealing your gold. If you want good advice on how to spend your rare metals, then I would counsel you to talk with my financial officer, Piotr Romanski.”

It was the turn of Sheraz to stare at her in silence for a moment. He then rose from his chair and extended one hand across the table to shake her hand.

“Captain Forster, destiny was indeed good with us in making you and your ship find us on Eris.”

10:50 (Universal Time)

Thursday, January 31, 2318

Office of Governor Robeson, Callisto Prime

Callisto, Jovian System

Janet Robeson sat back in her office chair, a slight smile on her lips, as she finished watching the prerecorded message from Sheraz, the political leader of the Koorivar refugees. That message was now being played every hour on the news channels in the Jovian System and had now reached Earth, starting numerous intense debates between various ‘experts’ and ‘analysts’ but also doing a lot to disprove a number of alarmist warnings about the aliens that had been propagated by a number of xenophobic loud mouths. Robeson had been particularly relieved by the announcement from Sheraz that the Koorivars had gotten rid of their anti-matter drive technology. Hopefully, that would now stop most of the venom that the various scientific associations had been spewing at poor Captain Forster for over a month now. That young woman deserved much better than to be treated like some kind of traitor to the Human race.

11:36 (Universal Time)

Offices of the Fourth Department, Hygiean Security Forces

Vostok City, Hygiea

Main Asteroid Belt

Anton Jelavic slammed his right fist on his work desk, out of frustration as Sheraz concluded his recorded announcement on the Universal News Network. If what the alien politician had said was true, then there wasn't much point left in pursuing the Koorivar anti-matter technology. Or was there? Forcing himself to calm down, Jelavic thought for a moment. Even if the machinery itself had been destroyed, along with the pertinent data files, some Koorivars would still be knowledgeable about the scientific principles involved. Typically, those Koorivars would be the engineers and technicians in charge of maintaining and repairing their ship. With the right kind of persuasive methods, the knowledge of those engineers could be extracted and the technology recreated. That would take more time than simply grabbing a working model of anti-matter drive, but it could still work...given the right moves.

16:07 (Universal Time)

Tuesday, February 12, 2318

Bridge of the A.M.S. KOSTROMA

Low orbit over Eris

"Confirm that the aft towing station's docking clamps and tractor beams are firmly locked to the VEON SHOURIA."

"Clamps are closed and locked. Aft tractor beams are on. The VEON SHOURIA is secure for the return trip, Captain."

"Very well! Engineering, start the ignition sequence for our main engine. Navigation, confirm that our course is locked in the computer and that we are aligned for a return vector to the Jovian System on a maximum performance run."

"Course computed and locked for a maximum performance run, Captain. The ship is aligned on the return vector."

"All departments show ready for boost phase, Captain. All the airlocks are secure."

"The Eris Station is wishing us a safe return trip to Jupiter, Captain."

"Extend our best wishes for their sojourn on Eris and tell them we will be happy to visit them in a year."

"Engineering to bridge: the fusion drive is now lit up and at idle power. We are ready for the boost phase."

“Good! Start the boost phase now! Pilot, get us out of orbit!”

As the muffled rumble from the powered thermonuclear drive started to be heard all inside the ship, Tina smiled at Shanandar and Sheraz, who were occupying visitors’ seats near her command chair on the bridge.

“We are now on our way to Jupiter, my friends. In a bit less than five months, your people will be able to start a new life in our Solar System.”

With her English words translated by their portable translation units, the two Koorivars smiled back to her, with Shanandar replying.

“We will never be able to thank you and your crew enough for all that you did for us, Tina.”

“You can thank us by enjoying life from now on, along with your 2,580 compatriots now aboard the KOSTROMA, Shanandar. Hopefully, we should get soon some firm information about where you will be able to resettle your people.”

The two Koorivars nodded their heads but didn’t speak: that was still a subject of great preoccupation for them and something that Tina Forster, however helpful she had been up to now, had little say about. The fate of the Koorivars now rested in the hands of Human politicians billions of kilometers away.

08:11 (Universal Time)

Friday, February 15, 2318

Reception area of Docking Tower Number Four

ZERO-G NIRVANA space brothel

Main Asteroid Belt

Michel Koniev, who had made an habit of being present, albeit discreetly, for the arrival of large contingents of new visitors to the space brothel, was not a little surprised to recognize one of them, a young and athletic woman with long blond hair and blue eyes who wore a rather non-descript pastel green coverall. The woman was pulling behind her a single large suitcase on wheels and carried a large leather purse suspended from one shoulder by a strap. Waiting for the woman to have gone through the arrival procedure, Michel then approached her as she was walking towards one of the elevator cabins of the reception area. She in turn saw and recognized him as he was still a few steps away but, instead of smiling to him, gave him a guarded look, something that both intrigued and alarmed Michel. He had first known Lyudmila

Vodianova when both of them had enlisted with the Hygiean Security Forces and had then trained together, becoming good friends in the process. They had never been intimate but always had good relations...up to now. Michel started walking besides her and spoke to her in a low voice.

"I didn't know that you had been posted to the ZERO-G NIRVANA, Lyudmila. And why the cautious face? We are friends, no?"

Lyudmila gave him another cautious look, replying in an equally low voice.

"Are we still, Michel? What I need now is a true friend, a friend I can trust completely."

That made Michel stop in his track and face her, with Lyudmila also stopping and facing him.

"Is something wrong, Lyudmila? You seem preoccupied, nearly afraid in fact."

"Because I am afraid, Michel. Right now, my life could very well be at risk. I didn't come here because I was posted here: I came to see you and seek your help."

"You know that you can always count on me, Lyudmila. What is wrong?"

"Not here! We need to speak in private. Are there any chances that your quarters could be bugged?"

That made Michel frown at once: things decidedly seemed to be quite serious.

"As head of security for this space brothel, I can assure you that the ZERO-G NIRVANA is about the most anonymous, privacy-conscious place you can find in the Main Asteroid Belt. Bugs are banned on order from the owner and you will find no hidden cameras inside any of the hotel rooms or entertainment sections. However, my quarters are adjacent to those of the other security officers of the station. Would that present a problem?"

"Yes! Let me get an hotel room, then we will talk."

Now frankly alarmed, Michel followed her inside one of the elevator cabins, which then went down to the big lobby where the hotels of the station had their reception desks. Lyudmila surprised him again by renting a small room in the cheapest hotel: with her salary as an HSF officer, she could easily have afforded much better. He however didn't say a word until they were both in her room, with the door firmly locked behind them.

"Okay, Lyudmila, what is going on, exactly?"

"What is going on, Michel, is that I want to leave the HSF but may be at risk if I do so openly. You know that I was working for the Fourth Department, the section headed by Lieutenant Colonel Jelavic?"

"Yes, I do. What about that?"

Lyudmila hesitated then, worry on her face.

"Michel, I was given a week ago a mission by Jelavic, a delicate undercover mission. A number of other officers of the Fourth Department were also enlisted on that mission. The problem is that I can't in all conscience go on with that mission, which is morally unjustifiable in my mind. Also, due to the sensitivity of that mission, I am convinced that Jelavic could have me eliminated if he knew about my misgivings. Essentially, I am now on the run, Michel, and I need your advice...badly."

Michel stared at her in silence for long seconds as he digested her words. He knew that the Hygiean Security Forces often played hardball and didn't always use completely legal means. On the other hand, Lyudmila, while a decent young woman, was no innocent virgin and had killed many people in the past when her duties called for it. For her to run away and hide from an assignment would take a very controversial mission order indeed.

"Can you tell me more about this mission given by Jelavic?"

Lyudmila replied in turn with a question of her own as she stared into Michel's eyes.

"Captain Forster, of the KOSTROMA: is she still a good friend of yours?"

That question hardened at once Michel's facial expression.

"She is in fact a very good friend of mine. Are you saying that she is the target of your mission?"

"Only indirectly, but my orders specify that she or any of her crew interfering with our mission are to be, uh, neutralized if need be. Michel, we were ordered to kidnap at least one alien engineer from that ship found on Eris, so that the secret of their anti-matter technology could be extracted from him. If possible, we were also to get into that alien ship to have a look at its engines. It is believed that those aliens could not possibly destroy their whole engine and that they only destroyed a few key pieces of it. Our job is to get enough information and data about those key pieces to allow us to rebuild a complete anti-matter drive or, at the least, to find how those aliens produced anti-matter. Our orders further specify that, apart from acting discreetly and anonymously, we were to use all the means possible to get that technology."

"All the means possible..." Said slowly Michel. From his twelve years of service with the HSF, he knew that this included assassination and torture. Lyudmila seemed to read his mind then.

"These means applied to both the aliens and any crew of the KOSTROMA who could help us get that technology. My particular job for this mission was to board the KOSTROMA as a paying passenger and then to find and designate to the rest of the mission team which alien or aliens would be of the most interest to us. Once that was done, those aliens would then be kidnapped at the next stopover and interrogated. Another task for me was to take pictures of the anti-matter drive, if at all possible."

Severely shaken by now, Michel had to go sit on the edge of the bed, his head lowered.

"Jelavic could not possibly decide on his own to launch such a risky mission: if your team was caught and unmasked, then the consequences for the HSF and the Sverdlovsk Group would be severe. Suslov herself had to authorize that mission."

"Correct! Those high risks also meant that no scruples could hinder our mission. If Captain Forster was to get a hint of what we were doing, our orders were to eliminate her at once, ideally by making it look like an accident. She may be an exceptional ship captain, but she is no undercover operative: she would not be able to escape a Fourth Department agent."

Michel, still sitting on the edge of the bed, looked up at Lyudmila as his mind boiled over with conflicting emotions. He had served loyally for years in the HSF and had forged bonds of comradeship with its other members. He had even led an HSF combat unit during the hard fight needed to retake Ares City, on Mars, from the thugs of the Earth Federation Internal Security Forces. Against that was the fact that Tina Forster was an intimate friend and a person he respected and admired enormously. Also, while he had killed many times while in combat or on security duty, kidnapping, torture and plain murder were still against his most deeply held moral beliefs. He had joined the HSF in order to uphold the rule of law, not to let someone act as if he or she was above the law. He finally took a decision, one that would have heavy consequences for himself and could even cost him his life.

"This mission of yours cannot be allowed to go on. I am with you, Lyudmila." Feeling a huge weight come off her shoulders, Lyudmila went to sit besides Michel, passing an arm around his shoulders and speaking softly to him.

"What do we do next, Michel?"

"Depends! How were you supposed to proceed with your mission?"

"From Hygiea, I was supposed to go by an indirect route to Callisto. In a sense, my trip to here could be still considered a valid mission move. Once on Callisto, I was to gather as much information as possible about the aliens, their new place of resettlement

and which one of them could be of interest to us. Then, when the KOSTROMA will arrive from Eris, I was to go aboard with the rest of the team and act once at the final destination of the aliens.”

“Then, continue as planned for the time being and go to Callisto to gather your information. As for me, I have tons of paid vacation time still due to me. I will soon ask for a couple of weeks of leave and go to Callisto, where I will contact the Spacers League Security Branch to alert it to Jelavic’s plot. I will return to Callisto again in time to board with you the KOSTROMA after its arrival from Eris. Hopefully, the rest of your team will have been neutralized by then. If not, we will then work with Captain Forster to insure the safety of these aliens.”

“You know as well as me that the Fourth Department probably has agents infiltrated inside the Spacers League Security Branch, Michel. Contacting them could unmask us as turncoats and make us targets for Jelavic.”

“I know, Lyudmila. That is why I will only contact people at the highest level possible. Probably the hardest part for us will be to provide sufficient proofs to have the Spacers League move against such powerful persons as Nadia Suslov. If she ever is able to wiggle her way out of trouble and keep her present powerbase, then our lives won’t be worth much.”

Lyudmila shrank at those words, a wave of fear and dread washing over her: to spend the rest of her life as a marked target for contract killers was an awful prospect indeed.

“What then? Where could we possibly hide if that happens?”

To her surprise, she saw a slight smile come to Michel’s lips.

“There is a village in space that I know about, Lyudmila.”

CHAPTER 13 – WELCOMING

14:36 (Universal Time)

Wednesday, July 3, 2318

Callisto Prime Space Terminal

Callisto orbit, Jovian System



Janet Robeson had greeted important visitors and heads of states many times before during her political career, but she had never been as nervous as of now. To be fair, this would be the first time in Humanity's history that representatives of a sentient alien race would be greeted officially in the Solar System and the medias were out in force to cover the event. There was also this business about the Hygiean plot to steal the Koorivars' anti-matter technology, but someone else was supposed to take care of that. Her mind then concentrated back on her present task as a small electric car emerged from the long access tunnel of the A.M.S. KOSTROMA and went through the security airlock of the terminal's gate before stopping ten paces in front of her and her delegation. All the cameras present were filming as the doors of the car opened, letting out Captain Tina Forster and two Koorivars wearing richly embroidered robes. One of the Koorivars then took the lead, followed closely by Forster and the other Koorivar, to finally stop two paces in front of Janet Robeson and bow to her. His first words were in a strange, totally alien language, followed by the voice of the translation unit he carried at his belt.

"Greetings, Governor Robeson! I am Administrator Sheraz, leader of my people who travelled to your Solar System aboard the VEON SHOURIA."

"And I am happy to welcome you and your people to Callisto, Administrator Sheraz. I hope that your trip aboard the KOSTROMA was a nice one."

"It was indeed nice, Madam Governor. The hospitality shown by Captain Forster was impeccable and her KOSTROMA is an impressive ship in all respects."

"I am glad to hear that, Administrator Sheraz."

"May I present you Captain Shanandar, the commander of the VEON SHOURIA, in which so many of my people are still in cryogenic sleep?"

Janet bowed in turn at the second Koorivar, who had just stepped forward to take place at the right side of Sheraz. While both were totally alien in aspect, Janet found it surprisingly easy to differentiate the two Koorivars from each other.

“Welcome to Callisto, Captain Shanandar. Your journey to our star system was truly an epic one.”

“That trip would have ended in tragedy if not for the arrival in Eris orbit of Captain Forster’s KOSTROMA, Governor Robeson. Destiny was kind to us in that respect.”

“Indeed! Captain Forster, please step forward so that I can greet you properly.” Tina, who was holding a small, decorated box under one arm, did so and was solemnly hugged by Janet, who smiled to her as she parted from her.

“Captain Forster, your voyage to Eris will be inscribed forever in the annals of Human space exploration. You and your crew did a splendid job.”

“It was a most satisfying job as well, Madam Governor, as it allowed us to rescue the Koorivars on the VEON SHOURIA. Our survey of Eris also proved it to be a most precious addition to our space assets.”

Tina then took her decorated box with both hands and flipped open its cover to show its content to Janet. The latter, with all the cameras around zooming on the box, could not stop herself from gasping with admiration at the sight of the orange-sized, elaborately cut and polished orange-yellow diamond sitting on a cushion of blue felt.

“Madam Governor, me and my crew are honored to present you ‘The Heart of Eris’. It weighs 7,800 carats and came from Eris, where we found hundreds of similar diamonds forged inside the core of that dwarf planet.”

Taking the box in her hands, Janet admired the huge diamond for seconds before turning around to show it to the cameras.

“I intend ‘The Heart of Eris’ to be exposed publicly at the Callisto Museum of Fine Arts, where all of our citizens will be able to admire it. Let this be a tribute to our first ever expedition to the dwarf planet Eris.”

Janet then had an aide take the box before turning around again to face Tina and the two Koorivars.

“A reception has been arranged in honor of your arrival. I wish to invite you to it, my friends.”

“We happily accept your kind invitation, Madam Governor.” Replied Sheraz through his translator unit. Janet nodded with satisfaction, then signaled her chief of staff to have her official limousine roll forward. She was soon sitting inside the vehicle

with Tina and the two Koorivars, with the limousine then starting to roll forward. Janet's expression of benevolent welcome was then replaced by a somber look at her guests.

"You will excuse me if the next thing I will say may disturb you, my friends. Know that a plot by the Hygiean Security Forces to steal the anti-matter technology from the VEON SHOURIA was discovered some months ago. Unfortunately, that plot is still running, albeit under our surveillance: we still need more proofs before we arrest the Hygiean agents sent to Callisto and before we can accuse the ones on Hygiea who ordered that plot."

Sheraz and Shanandar opened their mouths in shock and surprise on hearing that, while Tina's expression hardened at once. Sheraz then spoke up, his voice none too steady.

"But, I publicly announced to your people that we had destroyed our anti-matter drive and erased all the pertinent data about it. How could those people still think that they could get our anti-matter technology from us?"

"By kidnapping one or more of your people who would have worked with that technology, Administrator Sheraz. They would then force their captives to reveal what they know about it, possibly by torturing them. Your chief engineer and his assistants would be the most at risk here."

As the Koorivars digested those words with difficulty, Tina looked into Janet's eyes.

"How did you learn about that plot, Madam Governor? I would have expected those Hygieans to be very discreet about it."

"True! However, one of the Hygiean agents tasked with that mission, while accepting it, also secretly disapproved of it, finding it morally repugnant. She then confided herself to a good friend of yours, Major Michel Koniev, who agreed to help her and came to warn us about this plot. It appears that the mission may have been ordered by the highest echelons of the Hygiean authorities."

A smile appeared on Tina's face when Michel Koniev was mentioned.

"Good old Michel: always the decent man. Where are Michel and that agent now, Madam Governor?"

"The details about this and the Hygiean plot are known by only a very few select Security Branch officials, since we are afraid that there could be an Hygiean double agent in our services, but they are somewhere on this space terminal and are due to board your ship soon, along with the rest of the Hygiean undercover team. The plan of those agents is to select and watch their targets during the KOSTROMA's trip to where the Koorivars will be resettled, then act once on Earth. Unfortunately, we don't know the

identity of the other Hygiean agents involved, so we will have to play it tight until we are able to identify them.”

Sheraz, seriously shaken by all this, then picked up on something that Janet had said.

“Madam Governor, you mentioned that we will next travel to the resettlement location of my people. May I ask you where that location is?”

“You may, Administrator Sheraz. The President of the Northern Alliance on Earth has generously donated for your people’s exclusive use the northern tip of Vancouver Island, on the West Coast of North America. That territory covers a surface of 1,650 square kilometers, has a temperate climate and is heavily forested and surrounded by the sea. It is in fact a beautiful region and is one of the most pristine natural preserves left on Earth.”

Tina broke into a grin, temporarily forgetting about the Hygiean plot, and nodded to Sheraz.

“I know well that region, Sheraz: I go there every time that I have a chance to take some vacation time on Earth. Your people should love that place.”

“Please act as if you don’t know that yet, Administrator Sheraz.” Said Janet Robeson. “I was supposed to announce it publicly to you at the reception we are going to.”

Sheraz made a forced smile then while lowering his head.

“While I can only thank you for the generosity of your people, it will be difficult for me to appear cheerful at that reception, Madam Governor: my people are still threatened by those hostile agents you told us about.”

“Well, with some luck, those agents will soon stop being a threat, my dear Sheraz.”

17:08 (Universal Time)

COMFORT INN Hotel, Callisto Space Terminal

Michel Koniev glanced at both ends of the hotel’s corridor, making sure that nobody was following him, then stopped in front of a room’s door, knocking lightly on it. Nobody answered then, so he knocked again, a bit stronger, but still got no answer. He knocked a third time, this time also speaking through the door.

“Lyudmila, are you there? It’s Michel!”

Still not getting an answer, Michel tried the door's handle and immediately tensed up on finding it unlocked: as a trained undercover agent, Lyudmila would be unlikely to leave her room unlocked while on a mission. Slowly cracking the door open and with his right hand on his holstered pistol, Michel cautiously looked inside. His heart missed a beat when he saw a shape sprawled on the carpet, near the bed. Drawing his pistol and opening wide the door, he swept the room with his eyes and his pointed gun, but saw nobody else save for the immobile shape on the carpet. Closing and locking the door behind him, Michel still stayed on the ready and went to check the bathroom attached to the modest room, then looked inside the room's wardrobe. Seeing no one else, Michel then knelt beside the woman sprawled face down near the bed. He closed his eyes for a second, feeling sadness on recognizing Lyudmila. She was dead, with two bullet holes in her back and a third hole in the back of her head. She was wearing only a light night gown and her underwear and seemed to have been shot as she was heading towards the wardrobe to dress up. Anger then came to him: someone had probably found out that Lyudmila had betrayed the HSF and had eliminated her before she could unmask the other Hygienic agents involved in the plot. The question of how her murderer could have caught her like this unaware in her hotel room then came to Michel's mind. If someone had intruded in her room, Lyudmila's reflex would have been to face that intruder, not to turn her back to him. There was also no trace of a fight and her position suggested that she had been simply walking and not running when she had been shot. It was as if she had opened her door to someone willingly, then had gone towards her wardrobe to dress up, with her visitor inside the room. She thus had trusted that visitor. Planting a last kiss on the head of the dead Lyudmila, Michel then got up on his feet and surveyed carefully the room, trying to find any piece of evidence that could help him identify the killer. Lyudmila's wrist communicator, resting on its side on the bedside table, then attracted his attention: its cover was opened, while a small jar of face cream had been placed in front of it, hiding part of it. Walking around the bed to the bedside table, Michel held his breath when he could see that the communicator was actually on and switched to video recording mode. Nearly all the models of wrist communicators on the market in the Solar System had such a mode, where the owner could film scenes around him, typically during a party or a vacation trip. The recordings, which included both image and sound, could then be replayed, downloaded or retransmitted. Grabbing the wrist communicator, he stopped the recording and rewound it in fast mode. He put it on 'play' when he saw the face of Lyudmila on the screen as she was putting down the

communicator on the bedside table. Now tense as a bar, Michel watched the recording as Lyudmila was seen, wearing her night gown, going to the door of her room and speak through it after looking through the peephole.

“Who is it?”

The muffled response she got apparently reassured her, as she unlocked and opened her door, letting in a tall man wearing a good suit. The man flashed a badge at Lyudmila.

“Spacers League Security Branch. I am here to escort you to our terminal’s office: we have spotted a man that we suspect is one of the Hygiean agents sent to board the KOSTROMA. Hopefully, you will be able to recognize him discreetly via the security cameras of the terminal. Major Koniev is already at our office.”

“Very well! Just give me a minute to dress and I will come with you.”

Lyudmila was then seen turning her back to her visitor to walk towards her wardrobe. The man then pulled out from under his vest a silencer-equipped pistol and shot Lyudmila twice in the back. He then walked to her, going temporarily out of the field of view of the communicator’s camera. Michel still could hear however the ‘plop’ of his gun firing a third time before the man walked back to the door, holstering back his pistol before leaving the room and closing the door behind him. Cold anger mixed with dread filled Michel as he stop the recording. Only a few Spacers League Security Branch officers were supposed to know about Lyudmila and himself, while there was no way that any Hygiean agent could have known about his role in this. There was obviously an Hygiean sleeper agent inside the Spacers League Security Branch, and a highly-placed one on top of that. Michel had personally only met one such person, the director of the Security Branch, James Caldwell. The killer, while a mature man, was however nothing like Caldwell. The Spacers League’s counter-intelligence operation was thus hopelessly compromised, with Michel himself now probably unmasked as a traitor to the HSF.

Feeling momentary discouragement, Michel sat down on the bed, Lyudmila’s wrist communicator still in one hand. If he alerted anyone at the Security Branch about this, there was the distinct risk that the Hygiean team could be informed of it, in which case they would disperse and disappear, ready to strike at a later date and place. On the other hand, if he didn’t give the alert, those yet unidentified agents would be able to slip aboard the KOSTROMA, placing both the Koorivars and Tina Forster and her crew at mortal risk. Thinking over the problem for a moment, Michel then rewound the

recording of Lyudmila's murder to the moment she was going to answer the door, then used the wrist communicator to make a call.

At the banquet lounge of the PRESIDIO HOTEL, the reception given by Governor Robeson was in full swing, with Sheraz and Shanandar being assaulted by a crowd of officials and guests anxious to speak with them. Tina excused herself with the CEO of the Jovian Shipping Lines when her wrist communicator buzzed. She smiled widely when she saw Michel's face on the small screen, but quickly cooled down on seeing his hard facial expression.

"Michel? Where are you right now?"

"At another hotel of the space terminal. Are Governor Robeson and her Koorivar guests close to you?"

"I have them in sight and could get to them in a few seconds. What's going on?"

"Tina, the security operation to protect the Koorivars from undercover HSF agents has been severely compromised. The woman who alerted us to the HSF plot is now dead, murdered in her hotel room, and the HSF now knows that I betrayed them. Worse, I have proof that an HSF sleeper agent has infiltrated the Spacers League Security Branch and has probably alerted by now the HSF operatives. Those operatives may already be aboard the KOSTROMA by now. I need you to go warn Governor Robeson personally and discreetly, right now! I need to show her a video recording showing the killer of my friend."

"Hold the line, Michel!" Said Tina, the reception now all but out of her mind. She quickly walked to Janet Robeson, who was talking with a graying man. That attracted the attention of a man, probably a security officer, who interposed himself politely but firmly.

"The Governor is having a private conversation, miss. I will have to ask you to wait a bit."

"It can't wait! This is a matter of life or death!" Replied Tina in a strong voice, making the head of Janet Robeson and of many others around turn towards her.

"Let Captain Forster approach, Mister Glennis."

The security agent stepped out of the way at once, letting Tina walk to Robeson. Tina then undid her wrist communicator and presented it to the governor, holding it at face level. She spoke in a near whisper, so that others could not understand her.

"Madam Governor, I have an urgent call from Major Koniev: your security operation concerning the Koorivars has been compromised. You now have Major Koniev on line."

Janet Robeson took the communicator and looked at its screen, where Michel's face could be seen.

"Speak, Major!"

"Madam Governor, you have an HSF sleeper agent inside your Security Branch, and probably one at a high level. My friend that alerted me first about the HSF plot against the Koorivars is now dead: I just found her body inside her hotel room on this space terminal. Fortunately, she had the presence of mind of setting her wrist communicator on video recording mode before answering her door and then getting killed. Her killer presented himself as a member of the Security Branch and mentioned me by name to her."

Shock showed for a moment on the governor's face, then she glanced at the man she had been speaking with, who also had been able to hear Michel's words. She then looked back at the communicator's screen.

"I have presently beside me Director Caldwell, head of the Security Branch. I have complete confidence in him and wish him to see your recording with me. Do you have any objections to that, Major Koniev?"

"No, Madam Governor! In fact, he may just be able to identify Lyudmila's killer, if we are lucky. I am now starting to replay the murder."

With Caldwell first signaling his security men to clear other guests from around him, Robeson and Tina, he then watched stone-faced the recording of Lyudmila's murder. He however swore under his breath when the killer's face became clearly visible.

"Libmann, you damn bastard! Madam Governor, this man is one of my top lieutenants and is presently in charge of the security detail assigned to the Koorivars and to the KOSTROMA."

Both Janet and Tina looked at him with horror, with the governor showing a flash of anger.

"Then, I want this man to be found and arrested at once. Don't hesitate to shoot him if he resists, but try to get him alive: he could be precious to us in telling us who ordered the stealing of the Koorivar anti-matter technology."

"I will take care of this personally, Madam Governor." Assured Caldwell before walking away and assembling a few of his security men while posting four of them close

to Sheraz and Shanandar, who were still oblivious of the latest events. Janet looked back at the screen of Tina's communicator and spoke in a low voice to Michel.

"Are you armed, Major?"

"Yes, I am, Madam Governor. I now intend to get to the KOSTROMA and go aboard to try to find those HSF agents and that Libmann."

"Do that! I am freeing Captain Forster from this reception, so that she could get back to her ship and put it on alert for those infiltrators."

Janet then glanced at Tina, saying only one word.

"Go!"

Tina didn't have to be told twice, only taking the time to recuperate her wrist communicator before nearly running out of the banquet hall. She then broke out into a run, heading for the taxi stand outside the hotel while punching a call number on her communicator and getting her ship's head of security on line.

"Bill, this is Tina! I want you to discreetly put the ship on alert for armed infiltrators that may try to pass on as either passengers or as terminal employees. Be aware that an officer of the Spacers League Security Branch, a Peter Libmann, is in reality a mole for the Hygiean Security Forces bent on kidnapping key Koorivars in order to steal their anti-matter technology. That man already assassinated a woman here at the terminal. My friend, Major Michel Koniev, has the picture of that Libmann and is on his way to the KOSTROMA. You are to assist him as much as you can, as he may be able to recognize those HSF agents. If you find those agents, take them alive if possible but don't put your people at risk just for that. If those bastards are found and resist, then shoot! I am now on my way back."

Bill Morrison, to his credit, caught on at once to the situation and nodded his head.

"You can count on me, Tina."

Now a bit reassured, Tina closed the link and, emerging out of the hotel, shouted at one of the compact electric taxis waiting in line at the entrance.

"TAXI!"

She jumped in even before the taxi could come to a complete stop, surprising the driver.

"Uh, where to, miss?"

"To Gate Six! Floor it!"

Inside the ship's security office on the KOSTROMA, Bill Morrison was frantically assembling his few security guards when a familiar female voice spoke to him via a ceiling speaker.

"Mister Morrison, this is Spirit."

Holding in a flash of impatience, Morrison went to his security desk and switched Spirit to his intercom.

"We have a serious security alert on our hands here, Spirit. What may I do for you?"

"I have a suggestion for you concerning that security alert, Mister Morrison."

That left the security man incredulous for a moment: Spirit had in the past responded to queries and requests concerning past problems, as she was programmed to do, but this was the first time that it proposed something without being asked. This was however only the latest example of how Spirit had changed since their discovery of the VEON SHOURIA on Eris and the extensive exchanges between Spirit and Shanya, the main computer of the Koorivar ship. Bill was in fact starting to seriously wonder how much Spirit had really changed in the last months. He however still believed Spirit to be incapable of bringing harm to the ship or its crew.

"I am listening, Spirit."

18:13 (Universal Time)

Apartment 20291, Bow Gravity Sail Outer Ring

Level 16-D, A.M.S. KOSTROMA

Shoumak, accompanied by his assistant engineer, Kovar, was emerging from his assigned apartment on the Bow Gravity Sail Outer Ring, intent on going to eat at one of the two economy class dining rooms on the Main Cafeteria Deck, but nearly collided with a Human male standing in front of his door. The man had stood with his back to the door and wore a belt supporting two pistols, something that surprised Shoumak. He spoke in a polite tone to the man, using his portable translator unit.

"Excuse me, sir. Why are you standing in front of my door?"

The man, a young and fit one, nodded his head and gave him an apologetic smile.

"I am sorry, Mister Shoumak, but I have received orders from the Captain to escort you at all times from now on for security reasons: we have learned of a plot to possibly kidnap one or more specific Koorivars, which includes you."

"Is that plot linked to our anti-matter technology, mister?"

"It apparently does. Where were you headed with your friend?"

"To the cafeteria, for supper."

"Good! Then let me lead the way."

Now a bit nervous due to that story about a security threat against him and other Koorivars, Shoumak followed the man towards the nearest staircase section, Kovar close behind him. They went down to the outer ring promenade level, where they took the pedestrian bridge leading to the core section and giving a view of two of the forest habitats of the Bow Gravity Sail section. A number of Humans and Koorivars were also using the bridge at the time, most heading towards the core section, along with a few maintenance robots. The armed man then surprised again Shoumak by going to an elevator shaft where no one else was waiting for a cabin. A woman and two children who showed up a few seconds later to get into the cabin called by the man were politely but promptly asked to use another cabin, citing reasons of security. Now frankly puzzled, but never having faced anything in his life that he could have called a security threat, Shoumak went in the cabin with the man and Kovar, with the man pushing a button to designate his destination. Shoumak didn't really pay attention then, until their cabin passed the level of the Main Cafeteria Deck and continued going down.

"Hey! The cafeteria is on Level 10, no?"

"Correct, but we are going somewhere else." Replied the man, all politeness gone, at the same time that he drew one of his two pistols, an impressive weapon with a very large caliber barrel. Just after he said that, the cabin stopped rather abruptly and its doors opened on Level 7, the Hangar Deck. At the same time, a female voice coming from an overhead speaker spoke in Koorivar, its tone urgent.

"Quick! Back up to the opposite corner of the cabin from that man."

The armed man frowned on seeing the two Koorivars step back from him but didn't have time to speak before a massive firefighting robot rolled to a stop in front of the opened door of the cabin, one of its appendages pointed at him. A blast of extremely cold white vapor hit the man squarely as he was instinctively pointing his pistol at the robot. Shoumak and Kovar, maybe two paces away from the man, felt their hands and faces nearly freeze at once from the few vapors that reached them, while the armed man was transformed into a frozen statue, slowly tipping over against the walls of the cabin and sliding down to the floor, his now rigid arm still pointing his pistol. The two Koorivars were still contemplating with stupor the frozen shape on the floor when two more armed

men came at a run with guns drawn, pointing their weapons at the frozen man. One of the newcomers then looked with concern at Shoumak.

“You and your friend are okay, Chief Engineer Shoumak?”

“Uh, yes! What just happened?”

“Spirit was watching you remotely and stopped your cabin at a level where she had posted a firefighting robot. That robot then shot a blast of cryogenic nitrogen gas at your attacker. He will live, but may end up with some superficial freezer burns.”

After a moment of stupor, Shoumak looked up at the overhead speaker.

“Thank you, Spirit. I will owe you.”

“You are welcome, Chief Engineer Shoumak.”

Shoumak then looked back at the ship’s security guard, who had started to pull the frozen gunman out of the elevator cabin.

“Are my people safe now, or are there more bad people like this one on the ship?”

“There are more of them, but we are about to round them up down on the Container Storage Deck. Don’t worry about them anymore.”

Two levels down from the Hangar Deck, Peter Libmann was waiting with growing impatience near the elevator cabins of the central axis core, two men and one woman around him and with pistols at the ready.

“Come on! What is Kovalev doing? He should be here by now with his two Koorivars.”

The woman in their group, whose beauty belied her nature as a hardened killer, suddenly tensed up and raised her pistol while shouting a warning.

“Watch out! Two firefighting robots are approaching from opposite directions.”

“What the...” Could only say Libmann as he eyed one of the approaching, massive robots. Firefighting robots were standard pieces of equipment on spaceships and space installations and were designed to fight fires in conditions no human firefighter could hope to survive, even when wearing a spacesuit. As a consequence, they were heavily armored and insulated and were equipped with a number of devices, including a cryogenic nitrogen gas gun and a high pressure water lance. They also had their own gravity drives and could fly in space. He was pointing his own pistol at one of the robots when a man’s voice shouted out.

“DROP YOUR WEAPONS AND RAISE YOUR ARMS, NOW!”

Out of combat instinct, the three HSF operatives around Libmann pointed their pistols at once towards the now opened door fifteen meters away where the voice had come from and started firing. Whoever was in that opening hurriedly backed away behind cover. Return fire then came from another door opening twelve meters away, downing one of the male HSF operatives and making the female operative cry out in pain before she clutched her left forearm.

“AAH! I’m hit!”

Libmann swore and changed his aim, but he didn’t have time to shoot before the two firefighting robots fired their cryogenic nitrogen gas guns at the group, enveloping it in a swirling white vapor cloud. The four agents stopped firing nearly at once, transformed into icy statues that then toppled down to the floor with hard thumps. Five ship security guards led by Bill Morrison approached cautiously seconds later, their pistols aimed. Morrison, who was wearing leather gloves, didn’t try to take the pistols out of the frozen hands of the HSF agents, since he could well break away one or more of their fingers, instead ejecting their magazines and pulling their slides to eject the chambered rounds. His men did the same, on top of grabbing the spare magazines, knives and other weapons on the frozen agents. The grizzled ship security chief smiled as he contemplated the stiff agents on the deck.

“Decidedly, I will have to remember that trick about using firefighting robots in a gunfight: it is perfect to catch alive armed suspects with a minimum of risks.”

“Should we put them on ice, boss?” Asked with a grin Ahmed Jibril, one of his security guards, making Bill wince from the crude joke.

“That was one cheap shot if I ever heard one, Ahmed. At the least, the cryogenic gas stopped that woman’s bleeding...cold.”

“And you say that I tell cheap shots, boss?” Replied Jibril with false indignation.

18:56 (Universal Time)

KOSTROMA’s medical center

Peter Libmann opened his eyes with difficulty and repressed at once a shiver from his still half frozen body. His vision took a few more seconds to focus as he became conscious that he was lying in some kind of bed, with three persons surrounding his bed. His heart skipped a beat when he was finally able to recognize one of the three

men looking down at him as being James Caldwell, the director of the Spacers League Security Branch. There was nothing friendly in Caldwell's expression.

"Mister Libmann, I believe that we need to have a very serious chat together."

CHAPTER 14 – A NEW HOME

06:48 (Vancouver Time)

Friday, July 26, 2318

Regional District of Mount Waddington

Northern tip of Vancouver Island

North American West Coast

Earth



Sheraz, overwhelmed with happiness, slowly surveyed with his eyes the thick forest of coniferous trees surrounding him, Shanandar and Tina Forster, while sniffing the salt water smell from the ocean surrounding the tip of island he stood on. The air was fresh, at a very reasonable nineteen degrees Centigrade, with gray clouds overhead that made the Earth's level of daylight bearable to his eyes without the need for sunglasses. The ocean, with waves crashing against the cliffs and beaches of the huge island, covered the horizon to the West and North, while a long forested coastline to the Northeast went on in the distance. The VEON SHOURIA now rested at the vertical on its landing legs in the center of a large concrete landing pad that was connected by a newly-built road to an equally new nearby residential and farming complex. Sheraz finally turned to face Tina, emotion clear on his face.

"Tina, I will never forget all that you did for our people. This land is truly beautiful: my people will love its new home."

"You can thank President D'Arcy for ceding this portion of Vancouver Island to your people, Sheraz. With those prefabricated housing units and hydroponic gardens now completed and ready for occupation, your people will now be able to come down from the KOSTROMA and get to discover their new home. My own crew will help your people prepare your crops and maintain the support installations during the coming two months. It was due for an extended vacation anyway after our long trip to Eris and back."

"And after that? Will we have the pleasure to see you and your crew again?"

Tina smiled tenderly down at the Koorivar at those words: her ship's crew and the Koorivars already awakened from cold sleep had forged a solid bond of friendship during their months together on the KOSTROMA.

"We certainly will, my friend. In three months, my ship will depart for a return trip to Eris, to bring a new crew and fresh supplies to our exploration base there. We will come back here afterwards for more vacation time. You will then be able to see again as well your compatriots that have elected to stay aboard the KOSTROMA."

Sheraz nodded slowly at that: over forty Koorivars, including Shanandar and his two children, had asked Tina for the permission to stay permanently aboard her ship as either crewmembers or as employees of the various commercial concessions on the Main Promenade Deck. Tina had promptly and happily accepted their request, thus making the KOSTROMA the first mixed Human/Alien crewed ship in the Solar System. Shanandar then jumped in on the conversation.

"What about those Hygieans who wanted to steal our anti-matter technology, Tina? Are we now safe from them?"

"From the Hygieans, yes! Their leader that was responsible for ordering the plot against you has been stripped of all powers by her corporation's board of directors and is now awaiting trial in front of the Spacers League High Court of Justice. As for the agents who were actually executing the plot, they will also be judged for attempted kidnapping, attempted murder and, in the case of that Libmann bastard, for first degree murder as well. There are still however plenty of mean people on this planet, especially in the Southern Federation, that are hostile to you and I and which you should stay leery of. Your people's best bet is to never mention your anti-matter technology again, even if Shanya and Spirit still hold the blueprints to your interstellar drive."

"A judicious counsel indeed, my friend." Said Sheraz, who then smiled to her. "I heard that the good Major Koniev is now part of your crew...permanently."

Tina smiled as well: while Michel's decision to stay on the KOSTROMA made good sense in view of how many Hygieans viewed him rather dimly for betraying the Vostok Group, his main motivation was to stay close to her, something that suited her just fine.

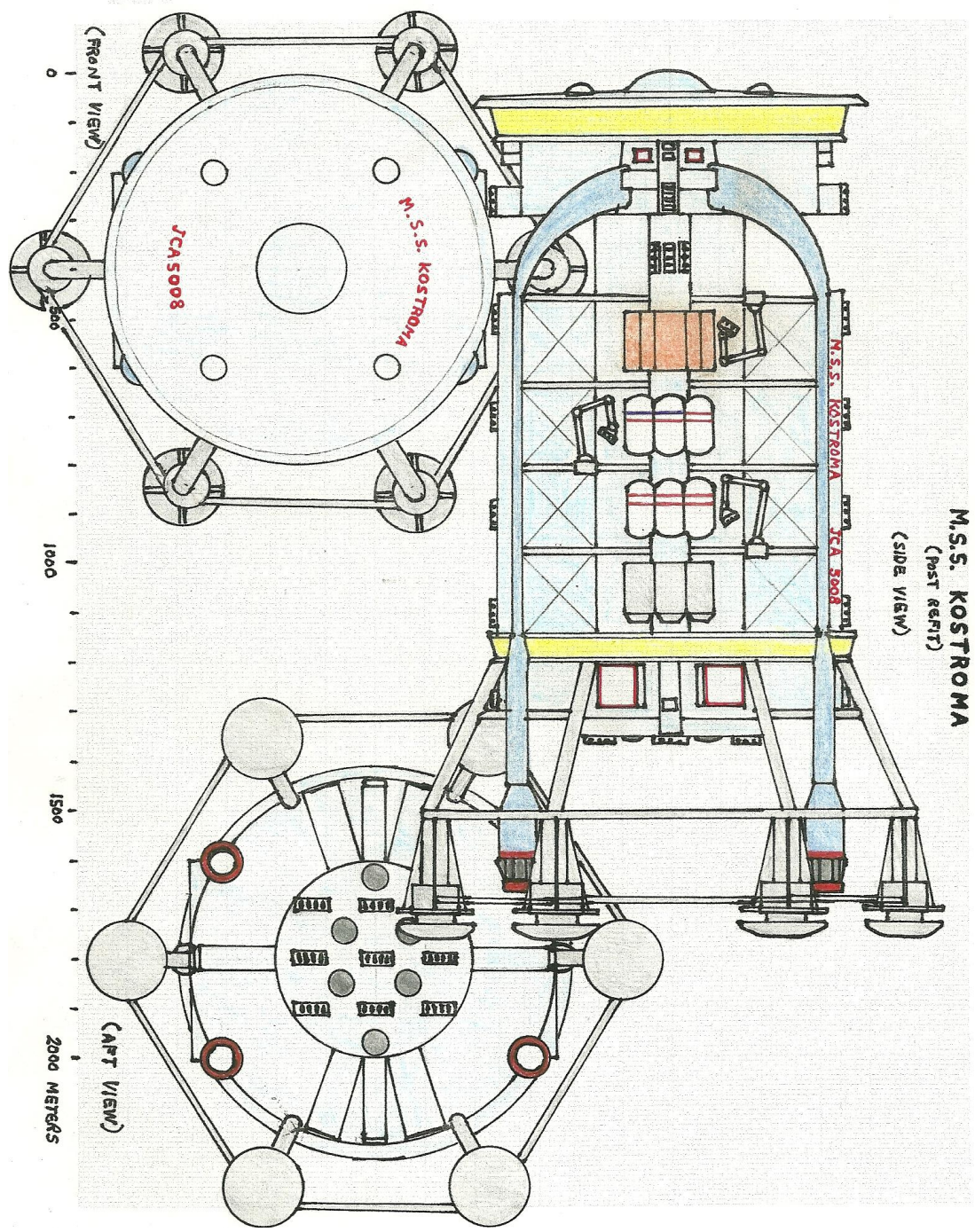
"I couldn't let go such a good man, right?"

"Of course, my friend!" Replied Sheraz, grinning. He then looked again at the ocean, gazing in the distance while thinking about his defunct birth planet. "I wonder if our two other evacuation ships made it to habitable worlds with our other compatriots."

“One day, when we will be able to travel through the stars at faster-than-light speeds, we will go search for them, my friend. That I promise.” Replied Tina solemnly.

A.M.S. KOSTROMA

(Post refit)



THE KOORIVAR



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