

# DAVE BARA

A futuristic space scene featuring a large, dark, angular spaceship with a prominent wing-like structure. Several smaller, sleeker spacecraft are positioned around it. The background is a vibrant nebula with shades of pink, purple, and yellow, set against a starry space backdrop. A network of thin, glowing lines is overlaid on the scene, suggesting a digital or tactical interface.

Volume Two of  
*The Lightship Chronicles*

# STARBOUND

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**DAVE BARA'S**  
***THE LIGHTSHIP CHRONICLES***

IMPULSE  
STARBOUND

# DAVE BARA STARBOUND

Volume Two of the  
*Lightship Chronicles*



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**HECHO EN U.S.A.**

Version\_1



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This one is for Janaan, my Mamouna, wherever you are.

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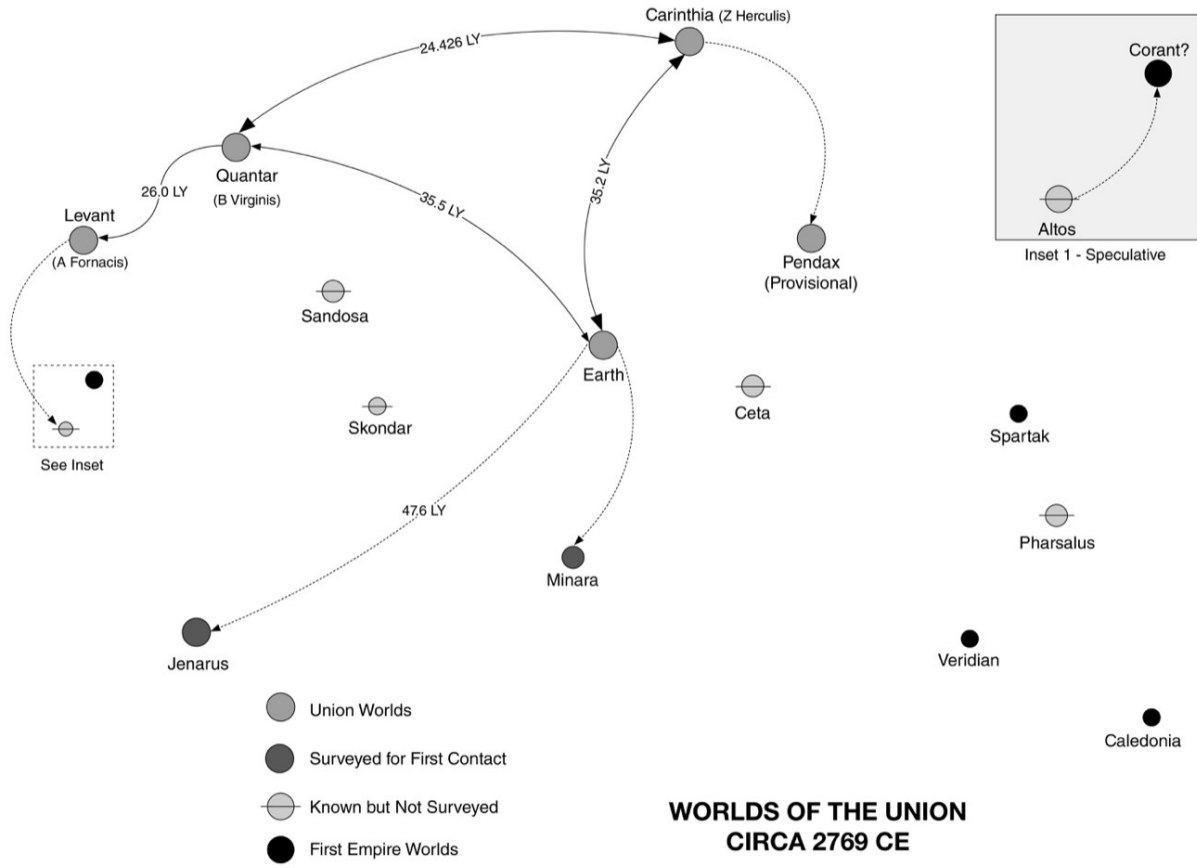
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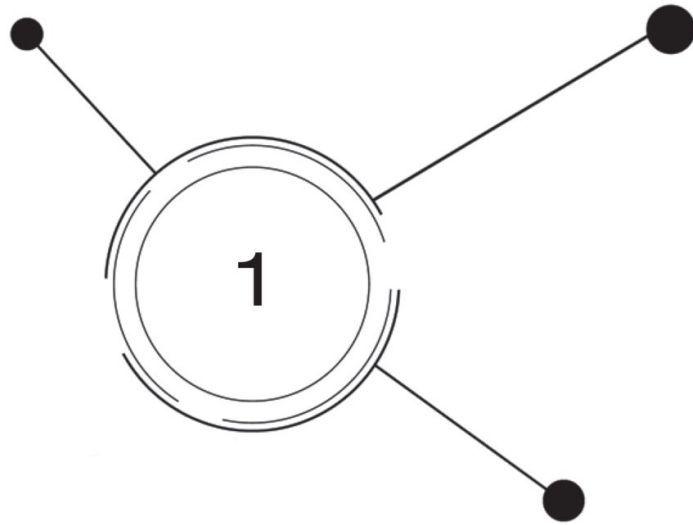
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[\*Dénouement\*](#)

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## ***At High Station Candle in the Quantar System***

I circled my opponent, foil raised and held at the ready. She circled me in return, but with her foil casually at her side, each of us making our way around the perimeter of the pen. I had faced her before, and felt the sting of her treachery more than once. *But not this time*, I thought. This was one-on-one combat, no mercy given inside the pen, none asked for.

A large crowd had gathered, as was typical for our daily fencing matches. Both Quantar and Carinthian sailors alike had proven to be great fans of our once-private sporting spectacle. They came to watch, hoping that I could finally break through, hoping I could finally best my superior officer, Commander Dobrina Kierkopf of the Royal Carinthian Navy, a former military fencing champion of her world.

I had never beaten her, it was that simple, but I had my military and my world's pride at stake. *For Quantar*, I thought. *This time I'll beat her for Quantar.*

We had been at this almost three months. I had taken it up after concluding physical rehabilitation from my numerous injuries after the Battle of Altos, where we had traversed the artificial jump gate at Levant with our Lightship *H.M.S. Starbound* and fought an ancient Imperial dreadnought to the death. Their death, it had turned out, but also likely the death of many of our friends and comrades aboard Dobrina's former command, the Lightship *H.M.S. Impulse* of Carinthia. I tried not to think about that too often—a reckoning would come soon enough—but right now I had only one goal, to defeat the Commander in the fencing pen for the first time. I watched her dip her

right shoulder subtly, just a dip, and then—

“*En garde!*”

---

She charged across the mat at me, whipping her foil back and forth in a flurry of motion that it had taken me weeks to even learn to track. I parried, I hoped successfully, then quickly fled to open space to regain my bearings. I was doing better today than most. We were tied 2-2 in the match, but the next score would seal it for one of us.

I continued circling away from her, retreating as she pursued, fending off her occasional testing of my defenses with her foil.

“Growing bored again, Cochrane,” she said.

“Is that what you call it?” The truth was I had to bore her with my defensive strategies. My only scores against her invariably came when I was defending. Attacking such a skilled swordsman was pure insanity. She never seemed to make the same move twice, and it was difficult learning her style because she didn’t really have one. She would use any manner of strategy to win, both inside and outside the rules. As she had told me once before, this wasn’t really fencing, it was sword fighting.

She attacked again, probing my defenses high and low, our foils clattering as they clashed. She moved inexorably closer with each step. I was barely able to hold her off and was completely unable to gain any positive ground under her relentless assault. It was only a matter of time now before I made a mistake.

I took a wild chance and lunged at her, getting inside her foil range and holding her off by grasping at her wrist, using my superior physical strength to my advantage. To my surprise she dropped her foil instantly and then pulled me close to her before spinning me around in a circle, using my own momentum against me. I tripped over her extended leg and fell on my back, sprawling on the mat. By the time I got my bearings back she had her foil in her hand, poised over the scoring zone at my chest.

“And now you’ve fallen for the dropped-foil technique,” she said.

“It seems I have,” I replied. She pressed her foil tip to my defenseless center.

The scoring bell sounded.

The crowd let out a groan of disappointment. She walked casually back to her bench, as she always did after defeating me. I took off my safety mask, went toward my own bench, and sat down. To my surprise, I saw a Carinthian sailor trading Union crowns to a Quantar sailor while his friend chided him.

“He has to win sometime,” I heard the losing Carinthian mutter.

“No, he doesn’t,” said his friend. Then they all walked off together, laughing.

Commander Kierkopf came across the mat. She looked down at me, her hair pulled harshly back in a knot, sweat pouring from her brow.

“Good match today, Peter,” she said.

“It’s always good when you win,” I said back to her.

“Yes, well, you’ve come a long way from our first match,” she said. It was a compliment, and I took it as such, but I really wasn’t sure if I was getting any better.

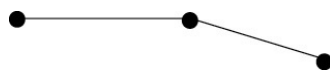
“Thank you Commander,” I said. She nodded.

“Don’t be late for staff. Captain Maclintock’s notes said he should have news on our redeployment today,” she said.

“I can’t wait,” I replied, wiping my own sweat-soaked face with a towel. Then she was off without another word. The deployment was welcome news. After the battle at Altos, the Historians of Earth had decided *Starbound* needed not just repairs but upgrades, and she had been under repair or

refit for most of the last six months. I was itching to get out into deep space again.

~~I looked down at my watch. 0713. I had forty-five minutes or so. I lingered in the pen for a few more minutes, then made my way back through the men's locker room and out into *Starbound's* broad main hallway, the galleria, there to take the walk of shame back to my cabin as I'd done almost every day for the last three months.~~



I was out of my fencing gear and into the shower by 0725. It was a Saturday aboard ship, so Maclintock's staff meeting had been moved from its traditional 0530 to 0800 as a gesture of kindness to the senior officers. Sunday was the only day we didn't have a full staff meeting, relying on informal contact, coms and messages, to stay up on current issues with the ship.

I let the water run over my hair and started shampooing, and inevitably got some in my eyes. I reached for my towel but found only empty space, followed by a burst of cold air for my trouble. I was sure my towel had fallen from the shower door, and now I would have to scramble to find it on the floor, half blind with my eyes burning. Suddenly a warm towel covered my face and a pair of firm hands cleaned the shampoo from my eyes for me.

I felt a warm body slide into the shower behind me. She handed me the towel and I hung it back on the door rack.

"I should have suspected," I said.

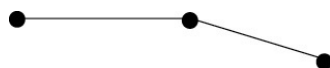
"Christ, I thought you'd never get back here," said Dobrina. "You're cutting it pretty tight."

"I'm not the one invading someone else's shower." She laughed and started rubbing my back with soap, lathering me up. Then she rubbed herself against me, too. "I'm not sure we have time for this," she said in mock protest. I was pretty damn sure that I'd make time for whatever she had in mind, but I didn't want her to think I was too easy.

"You should have thought of that before you gave me your door security combination," she said. Then her lathering started getting very direct.

"Are you *sure* we have time for this?" I repeated. She responded by sliding her body around mine until she faced me in the tight confines of the shower. Then she put her arms around my neck and kissed me passionately.

"Oh, I'm sure we have time," she said between kisses, "for what I have in mind." Then she slinked her way down my body, and the staff meeting became the furthest thing from my mind.



There were six of us on call for the Saturday staff, and I was there two minutes early to load my plate with a croissant and my morning coffee. I took my place to the left of the captain's chair in the Command Briefing Room and nodded good morning to Colonel Lena Babayan, *Starbound's* marine commander, George Layton, our chief helmsman, and Jenny Hogan, our astrogator and the lone survivor besides Dobrina of the doomed ship *Impulse*. Maclintock came in and took coffee before sitting in his customary place at the head of the table. Dobrina was last in, and took no refreshment a

all. I fancied I'd just given her all the refreshment she'd need for the day.

~~I smiled and nodded slightly to her as she sat down, her face giving away none of the deviousness of her true character.~~

"Let's begin," said Captain Maclintock. "There's news about our new deployment," he started. "We leave Monday morning at 0700 for the Jenarus system."

"First Contact mission?" I asked, excited at the prospect. Maclintock nodded.

"Jenarus has been surveyed by *Valiant*, but there has been no contact with the government as of yet. From what we can tell from eavesdropping on their communications network the government there is in a rather regressive state of crony socialism. A lot of government-controlled media and an oppressive police state," said Maclintock.

"Not ideal for inclusion in the Union," I stated.

"Not ideal no, but still, they meet the standard for First Contact, a seven on the Technological Development scale if only a six on the cultural scale. Not as high as Levant, but they rated out very closely to Pendax, so they're in the ballpark," he continued.

"What's the status of the survey teams left by *Valiant*?" asked Dobrina.

"Two teams of six were dropped surreptitiously on the planet sixty days ago, and we're coming to pick them up. If all goes well we can begin the First Contact protocol. But here's where it gets interesting," said Maclintock. "There's apparently a First Empire station orbiting the fourth planet, which is basically an airless rock. They were mining something there, but we don't know what. *Valiant* didn't have time to explore the station in detail, but they listed it as both 'abandoned' and 'operational.' Best guess is that it's been running on automatic protocols since the war ended."

"Active but not occupied?" I said. "That's curious." Maclintock nodded. He looked down the table at Lena Babayan.

"So this looks like an opportunity for your marines to stretch their legs, Colonel," he said.

"We welcome it, sir," she replied.

"Good," he said, then continued. "The Jenarus government seems to have little interest in space exploration at this time, even though they have the technology for it. They seem much more inclined to spend their capital on orbiting satellites to monitor their populace and doling out meager social programs than in exploring their own star system any further. We'll go in undercover, which shouldn't be too much trouble since they spend almost all of their time with their cameras turned on their own people, explore the station, determine its function, and then disable it before we make contact. Admiral Wesley wants no repeats of what happened to *Impulse* at Levant."

I looked at Dobrina across the table. She remained impassive but there was no doubt her feelings for her lost command still weighed heavily on her, as they did on me.

"And as for *Impulse*," continued Maclintock, "there is more news I'm afraid, for both Commander Kierkopf and Lieutenant Commander Cochrane. Admiral Wesley wants you both back on Quantar inside two weeks. There's going to be an inquest over *Impulse* called by the Carinthian Royal Navy next month, so you'll both have to be briefed before you go. I'm sure we'll find a way to get you there well ahead of schedule."

"Thank you, sir," said Dobrina, again showing no signs of the internal turmoil she must be feeling. I sympathized with her. At least I would be there for support.

"Now, back to Jenarus. Lieutenant Hogan, what's our ETA to the system?" asked Maclintock.

"Well," said Hogan, clearing her throat before starting in. "It's a much further jump than the local hops we've been making to Levant and Pendax, sir. Probably at least two days of traverse in a hyperdimensional bubble before we emerge at the other end of the line. Jenarus is forty-seven point

six light-years from Quantar, a G-IV-type star, binary, six rocky planets and ten gas giants. The Jenarus system has an unusual landscape in that there appears to be a jump space tunnel within the system, which we'd like to avoid. So given all that, I'd make it a two-point-four-day traverse in the hyper-bubble, and if we emerge into normal space at the same jump point that *Valiant* did, another day to the First Empire station around Jenarus 4, sir."

Maclintock turned to Layton. "Can we avoid that jump space tunnel, Mr. Layton?" he asked. Layton leaned forward.

"I think so, sir. It could be tricky on the jump-out, though. As long as Mr. Cochrane can provide me with accurate longscope data, we should emerge near the exit of jump space and be able to leave the tunnel without incident, sir, but it could be tricky. If our HD drive is engaged at all, even one ten-thousandth of a point, we could find ourselves sliding back into the tunnel and emerging at the other end of the line," said Layton.

"And where is the other end, Mr. Layton?" asked Maclintock.

"Almost in the corona of the Jenarus star, sir."

Maclintock looked at me.

"So we'll have to completely disengage our HD drive, cool it down to zero, disengage our Hoagland Field and fire the chemical impellers to get us out of the jump space tunnel to avoid ending up in the furnace of Jenarus Prime, all within how long, Mr. Cochrane?" asked the captain.

"I'd say we have about five seconds," I replied. He looked at me incredulously. "With Serosian help, that's practically an eternity, Captain," I reassured him. "And besides, *Valiant* did it."

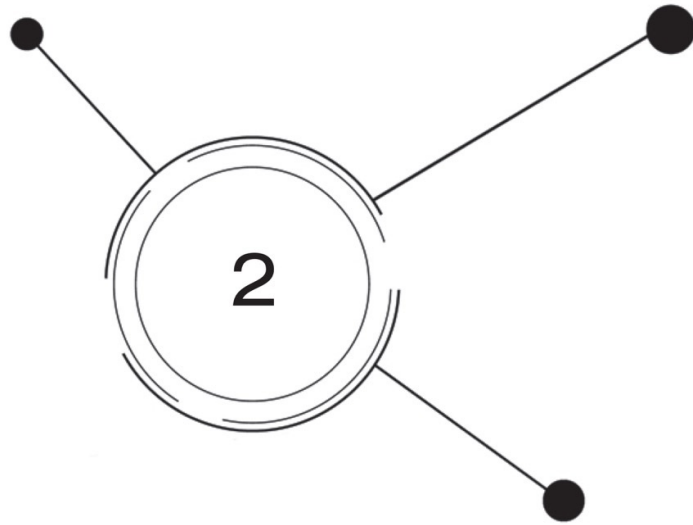
He took a long draw of his coffee.

"Let's make sure we do it, Commander. I'm holding you responsible."

"Aye, sir," I said, confident but not cocky. I was anxious to get back into space and spread my wings some, and this seemed like an excellent opportunity.

"Well then," Maclintock said, "let's do it. The twenty-four-hour launch clock starts at 0700 tomorrow. Recall the crew and button her up by 2300 tonight. No screw-ups, and no delays, gentlemen."

"Yes, sir!" came the enthusiastic chorus all around the table. Maclintock stood and departed, and we were all left to our duties, ready to tackle the day.



## ***Departing Candle***

**S**tarbound's Earth Historian, Serosian, was back aboard the ship by 2100. I joined him in his library, which was also part of a separate vessel, the Historian's Yacht, to go over the last-minute upgrades to our newly trimmed-out and fitted-up Lightship.

"And what do you have to report on your work on the new longscope station?" he asked me in his distinctive baritone.

"I'm pretty comfortable with it," I said, and that was true enough. The new unit had a reduced footprint on the bridge and a drastically smaller hood. Instead of covering my whole upper body as it did before, it now had just a small cowl for me to lean into. The privacy of the displays was handled by an upgrade to my coronal overlay, which allowed me to see any display I chose, or any display the Historian chose to share with me. A casual observer without the upgrades or security clearance would just see a blank gray screen. "It makes me feel like I'm part of the command deck again, with the captain and the tactical station available and easy to talk to. Plus of course your station is more readily available," I said.

"That was one of the goals of the upgrade," he said, "but we will still be doing much of our communication through the private com and via your displays."

I nodded. "Understood. What about the new weapons systems? Any surprises there?" He shifted in his chair, seeming a bit uncomfortable at my question and perhaps reluctant to answer, but he answered anyway, at least partially.

“The primary coil cannon arrays have been upgraded to six hundred and sixty exajoules per volley, enough to shake up a continent. After our encounter with the Imperial dreadnought at Levant was clear we were severely underpowered compared to old Imperial technology. Likewise, we’ve upgraded the Hoagland Field array to match, as well as the warheads on our atomic torpedoes to increase their yield. The field will now be able to diffuse the effects of any anti-graviton plasma weapons we might encounter, like those at Levant. Our pace through normal space is still limited by Newtonian physics, but we’ve upgraded the impellers and the sub-light hyperdimensional drive output to give us quicker acceleration and more escape speed, if we need it,” he said.

I was a bit disappointed at this. “What, no new superweapon? A planet-melter or something?”

He looked at me, nonplussed by my attempt at humor. “That’s all I’m willing to discuss at the moment, Peter. The rest will depend on our circumstances,” he replied coolly. I eyed my friend and mentor. He was throwing up a stone wall at me, but I wasn’t ready to concede just yet.

“The anti-graviton device the Imperial HuK used at Levant is the most worrisome to me. That is a potent weapon. Let’s hope the First Empire didn’t develop any capabilities of that weapon beyond what we’ve already seen,” I said.

“The new field will protect the ship,” Serosian said flatly. Again, I wasn’t ready to concede and let him off the hook.

“But what about planets like Levant?” I asked. “Who or what will protect them?”

He shifted again in his chair.

“We have developed and deployed a drone network at Levant, Quantar, and Carinthia that will diffuse any anti-graviton energy if they try to use it on a planet,” he said. “I know you have a particular interest in the welfare of Levant, Peter, but the Church has the Founder gateway device there under control and she is safe enough for now.”

I wasn’t sure if by “she” he meant the planet itself or its most intriguing resident, the Princess Janaan.

“Thank you for your reassurances,” I said. “But that doesn’t answer my question.”

“No,” he said, finally smiling but not giving in, “but it is all I’m willing to tell you for now.”

I nodded. “Very well. I can see your stubborn streak has kicked in.”

“That it has,” he said, then quickly changed the subject. “So, how are things with Dobrina?” he asked casually.

The question caught me off guard. I’d been in a personal relationship with the Commander since my rehab stint on High Station Candle had ended and I’d returned to *Starbound* three months ago, but he and I had never discussed it.

“Things are . . . progressing,” I said cautiously. “Are you going to be the latest to warn me off of personal relationships with superior officers?”

He shook his head. “No. In fact I’m glad you two are enjoying each other’s company. Just be aware that it can’t interfere with the smooth running of the ship.”

“It hasn’t yet,” I said. “And it’s been three months already.”

“Three months of repair and refit,” he countered. Now it was my turn to give him the steel-eyed stare.

“Do you have doubts about me, Serosian?” I eventually asked. No one out-stared *Starbound*’s Historian. Again the negative shake of the head.

“Doubts, no. But I do have a warning. Like it or not, you have two roles aboard *Starbound*, Peter. One is as a navy officer, which you handle quite excellently. The other is as a young royal representative of the Union who might be called to assume the mantle of diplomat at any time, as you

were on Levant,” he said.

“I understand that.”

“Then please consider one other thing; you are engaged in a personal relationship with a valuable fellow officer. At any time you may be called by duty to relinquish that relationship for the sake of the Union. Are you prepared to do that?”

I thought about that. I had feelings for Dobrina, feelings of romance and respect and possibly even of love, but my standing as the heir to Quantar’s royal titles was never far from my mind. “I think so,” I said.

“Then also keep in mind that Dobrina has feelings as well, and though you may be prepared to sacrifice your relationship with her, she may not feel the same way about you. Tread lightly, Peter. She is still a woman underneath the uniform and the duty and the honor,” he finished.

And I had nothing to say to that, so I didn’t. I thanked him for the conversation and made my way back to my own cabin to rest. Alone.



Ship’s Sunday was filled with checking in on the marines, including my friend Sergeant John Marker who was now leading a fully integrated team of equal numbers of Quantar and Carinthian troops. Colonel Babayan had overall command (and I had responsibility over her) and her own integrated team. Together the two of them made friendly rivals. I ran the marine teams through several drills and even had them run one in their full EVA suits with the gravity off in the landing bay, deploying out of their shuttles by tether. I wasn’t sure they would ever need it, but I wanted them to be prepared just in case. Deploying on the First Empire station orbiting Jenarus 4 could be tricky, and I wanted to prepare them for any eventuality.

After a couple of hours of drills I let the teams have the afternoon off, but not before heading down to the ship’s firing range to get in some practice time. Usually on Sundays I was alone, but today one of the nine ranges was occupied. I checked out a coil rifle and pistol and loaded them with plasma packs before heading over to see who the other shooter might be. I found a small and scrawny young lieutenant practicing his target shooting. He immediately snapped to attention when he saw me coming, but I waved him to at-ease.

“Lieutenant . . . Daniel, isn’t it?” I said.

“Yes, sir,” he snapped in reply.

“Practicing your target shooting?”

“I am, sir.” I paused for a second to recall what I knew of the young man. All I could remember was that he was responsible for ship’s accommodations and supply, not an active combat role of any kind.

“Aren’t you the ship’s purser?” I said. He nodded.

“I am, sir,” he repeated.

I smiled as I loaded my rifle. “What brings you here?”

He hesitated at this.

“Well, Lieutenant?”

“Sometimes Sergeant Marker lets me come down and practice with the marines, sir. I like to keep my shooting skills fresh, sir,” he finally said.



“So are you looking for a more active combat role?” I asked him. Again he hesitated.

~~“Being the purser has its perks, sir. But I’ve always wanted to have a combat role,” he said. I appreciated his honesty.~~

“Well, if that’s what you want, you should have come to me. I’ve got final jurisdiction over the marine detachments.”

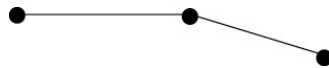
“Yes, sir.” I looked at him again. Physically there was no way he could measure up to the marine *Starbound* had. Ours, whether Quantar or Carinthian, were the best of the best. Still, I admired his ambition.

“Let’s see you shoot,” I said. He activated a new target and completed ten out of ten on his first run, but missed two on the second. I set it up for a two-man challenge, pistols and rifles both, and set it for a three out of five game. I won the first two rounds in each category easily, but he showed determination and took the third legitimately before I dispatched him in the fourth round. Still, for a noncombat officer, he showed promise.

“I’ll recommend to Sergeant Marker that he let you drill with the teams on your off hours, lieutenant. But no skimping on your regular duties,” I said afterward as we cleaned our weapons.

“Thank you, sir!” said Daniel, quite enthusiastic.

“You’re welcome, Lieutenant,” I said as I departed, making a note on my com pad to talk to Marker about him.



I turned down Dobrina’s offer of an afternoon fencing match via my com, I hoped politely. Serosian’s lecture was affecting me, and I was concerned that perhaps I had let things between us go too far, considering all my other responsibilities aboard *Starbound*.

I ate with my senior reports, Marker, Hogan, Layton, Babayan and Duane Longer of Propulsion, for both lunch and dinner. Satisfied we were all ready for launch at 0700 Monday, I headed back to my cabin at 1930 hours to rest and relax before the next morning’s events.

I opened my door to find Dobrina on my couch, reading her reports on a plasma display and drinking a bottle of my favorite Quantar shiraz. She was also wearing a one-piece, skin-tight black bodysuit that was no doubt designed to get my attention. That it did.

“Have I no privacy anymore, madam?” I said as I entered and then quickly shut the door behind me.

“Not today you don’t,” she said. “Not after giving me the brush-off on fencing.”

“I was busy,” I said, defending myself and taking off my duty jacket as she poured wine into a glass for me.

“Not good enough, Commander. You’ll have to do better with those excuses,” she said. I had the rest of my uniform off in a few more seconds, then put on a pair of casual duty coveralls and sat down in a chair as she handed me my wine from across the coffee table.

“And how was your day?” I asked her casually, like we were an old married couple. She smiled and it lit up the room, for me anyway. I found that my ability to hold her at arm’s length emotionally evaporated when I got near her. I wondered if that was what love was like.

“My day was full of reports and system failures and general to-doing that should never have happened. I spent two hours down in Propulsion kicking some ass on their preflight performance

drills," she said.

~~"They aren't ready?" I asked. "Duane Longer reported to me otherwise."~~

She shook her head. "Not even close as far as I'm concerned. I put Lieutenant Longer on notice. But it doesn't matter. We launch at 0700 anyway. Maclintock won't stand for anything else."

"That he won't," I said and took a drink of my wine.

"You seem pensive," she said. It was like she could read my mind. "And I could tell you were avoiding me all day."

I circled the rim of my wineglass with my thumb, looking down at the table.

"Come on, out with it. That's an order," she said. I laughed, then sat back.

"I had a talk with Serosian today."

"Well, it wouldn't be a conversation with our esteemed Historian if it didn't involve warning you about me again, would it?" she said.

I shrugged. "You shouldn't be so hard on him. He's actually trying to protect you," I said.

"So he thinks," she replied. "I'm a big girl, Peter, all grown up. I think by now I've proven that I know what I'm doing in this relationship, as well as with my career."

"He's just concerned about my future political responsibilities, and how they might end up hurting you if we get too close," I explained. She sat back at this, increasing the distance between us.

"I appreciate his concern, but I'm well capable of taking care of myself, thank you," she said.

"I'm not taking his side, you know. Just relaying his concerns," I answered.

"And so you have. Perhaps it's time we moved on to more pleasant activities than arguing about Serosian." With that she put her glass down and came across the room. She took my glass from me, then straddled me on the chair, her hands on my shoulders. I looked up at her. She had a magic about her, though it certainly wasn't about her external beauty. It was something more, something deeper, that had its hooks in me.

"I learned a long time ago that I could get hurt in love, Peter. It hasn't stopped me from pursuing it, and it won't keep me away from you, unless that's what you want," she said. "Right now I'm enjoying every minute we have together, and I'm taking it just that way, moment to moment. Don't let Serosian worry you. Do what feels right in the moment, and we'll both be safe, and happy, okay?"

"Okay," I said. Then she started kissing me, and the body suit started to come off, and I was reminded again just why I thought she was such an extraordinary woman.



We were set and ready for launch by 0630. All of my system responsibilities checked in green a full forty minutes prior to departure. Dobrina's reports took a bit longer but we were green to go with thirty minutes to spare.

Maclintock started the launch clock at 0645.

Serosian came up to his station five minutes before the hour. I took to my longscope station and clicked into our private com channel as I fired up my systems displays.

"You're nothing if not prompt," I said sarcastically.

"There's always a critic," he said back. That made me laugh, but only for a second. Maclintock demanded a final departure report.

"All systems green, Captain," I said in response.

“Regretfully, Captain, I must disagree.” This came from Dobrina, seated next to the captain at the XO’s station.

“Explain, XO.”

“We are green but we are not optimal, sir. The performance of the Propulsion team has been below accepted norms for the last two ship’s cycles,” she said.

“Mr. Cochrane?” asked Maclintock, turning his attention back to me. I stepped away from the longscope and approached the captain’s chair, looking down on Maclintock and Dobrina.

“Propulsion Officer Longer has reported both chemical impellers and sub-light HD drives are above acceptable minimums, sir. I trust that evaluation,” I stated.

“But the fact is that the unit as a whole is testing out at just eighty-four percent efficiency, isn’t that true, Lieutenant Commander?” said Dobrina. I took her challenge.

“Your test evaluations are correct, XO. But I prefer to measure performance by actuals, not test evaluations,” I replied. Maclintock mulled this.

“Lieutenant Longer,” said the captain to the slightly pudgy, ginger-haired lead propulsion officer. Longer stood and faced the captain’s chair from his post one level below the Command Deck. “Can you guarantee we will outperform the XO’s test evaluations in actual flight?”

Longer looked to me, and I gave him an assenting nod, guaranteeing him my support.

“I can, sir,” said Longer. “XO’s evaluations are based on assumptions that we cannot compensate for a filtering problem with the chemical fuel infusers, sir. I believe we solved that problem late last night.”

“So you’re *guaranteeing* that we will outperform the eighty-four percent threshold?” asked the captain. Again Longer looked my way. I held my gaze firm.

“Guaranteed, sir,” he said.

“Good. I’ll hold you to that. But as a matter of course, whenever a challenge is raised on my bridge there must be something put on the line as compensation to the winners. I propose that the loss of this little bet must provide the winners with something of value, perhaps dinner at the Cloud Room on Candle when we return,” he said. That was no small bet, especially for a junior officer. The Cloud Room was expensive.

“I’ll take that bet, and I’ll back the lieutenant on this one, sir,” I said.

“Done,” said Maclintock. “And so as not to leave the XO flailing alone in the wind, I will back her side of the bet.”

“Also done,” I replied, eyeing them both with a smile on my face. Maclintock smiled back.

“Very well then,” he said. “You have to keep your propulsion efficiency average over eighty-four percent for the duration of the voyage to Jenarus, gentlemen. Stations!” he called out. Then we all broke back to our duties, with George Layton taking us away from Candle and making for our jump point exit from our home system.

We were good on impellers for the two light-hours it took us to reach the exit of the Quantar system, but when we started to decelerate to the jump point, our propulsion efficiency began to drop. Lieutenant Longer sent a note of it to my systems display as we slipped below our minimum. The damned infuser filters were probably clogging again. I looked over at Dobrina, who smiled and winked back from her monitoring board. I switched the com to Longer’s channel.

“What are we gonna do?” he said, a bit panicky. “We’re already dropping in performance.”

“Buck up, man. We stay the course. Once we enter the hyperdimensional bubble we’ll engage the sub-light HD drive and that will carry us through until we exit into normal space again. You’ll have almost two days to fix those infusers,” I said.

“But if we engaged the hybrid drive—”

“No.” I cut him off, looking around the bridge to see if Maclintock or Dobrina were eavesdropping on our conversation. When it was all clear, I said, “That’s our ace in the hole. We’re not using the hybrid drive until and unless we *have* to. Clear, Lieutenant?”

There was silence for a moment, then, “Clear, sir.”

“Good.”

The hybrid drive was something I’d had Longer working on for a couple of months, a way to increase the chemical impeller drive output by running the HD sub-light drive at the same time in standby mode. The impellers could then cultivate the electrons from the excess HD plasma, convert them to a gas, and run more efficiently. Basically it was a kinetic energy reclamation system. Of course there was the *slight* possibility that the resulting energy intermix could destroy the ship, but that was a less than .000086 probability. Those were numbers I was going to hold on to, for now.

Twenty minutes later, we shut down the impeller drive with our efficiency score running at 84.5 percent, barely over the bet minimum. Switching to the sub-light HD drive inside the bubble would help us, but our margin was razor thin.

Longer turned over control of ship’s propulsion to Jenny Hogan at Astrogation with five minutes to go on the jump clock. She had plotted our path to Jenarus through the hyperdimensional aether, and once we jumped, we wouldn’t be able to exit traverse space until we reached our destination. I quietly hoped she was as good at interstellar geolocation as I thought she was as I strapped in for the transition. We were, after all, essentially jumping blind to a point in space 46.9 light-years distant.

“All systems green for the jump, Captain,” said Dobrina.

“Thank you, XO. Mr. Cochrane, A countdown if you please,” said Maclintock.

I checked my board one last time. Serosian had transferred jump control to my station, I had entered Lieutenant Hogan’s calculations, and Longer had the interstellar hyperdimensional drive warm. We were cruising through jump space in our own star system and preparing to enter an alternate dimension before exiting two and a half days later at a point trillions of kilometers distant, without actually traversing the space in between. It was a terrible responsibility.

I looked down at my jump controller.

“Five . . .” I counted down.

“Four . . .”

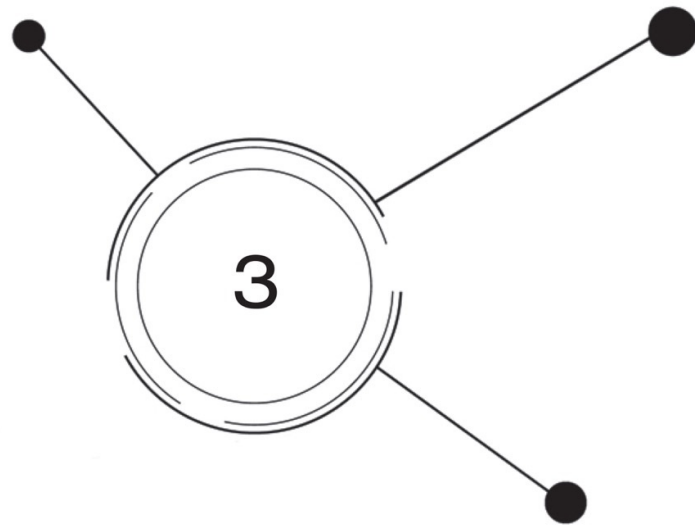
“Three . . .”

“Two . . .”

“One . . .”

“Jump!” ordered the captain.

“Jumping!” I engaged the Hoagland Drive, and colors that had never been seen filled my mind, and I found myself wondering, as I always did, if I would awaken in this life, or the next.



## ***The Traverse***

It seemed like days later, or seconds, I was unsure, when I came back to my senses. My mind felt like pieces of a puzzle being put back together in random order, but then suddenly there was clarity, as if some unseen hand had guided everything that made up my being back into its proper place.

I looked over at Serosian's station. His eyes were closed in deep meditation, as was his practice during jumps. I tried to focus on my board as the bridge crew started coming out of their joint trance.

The Hoagland Drive was operating in perfect sync within the protective field of the same name that kept us safe. Longer had timed the sub-light HD drive activation perfectly, and we were making .88 light within a bubble of space made of our own universe/dimension. What was outside that bubble was completely unknown, and I found myself uncurious about it. As long as the Hoagland Drive and Field kept *my* ship safe, I was happy.

*Starbound* had never done a traverse this way, with extended time in a bubble of normal space while actually traveling through another space/time dimension that existed outside of the bubble. Our previous jumps had been local enough that they could be accomplished by jumping from one point in our host system to another point in a nearby star system. But the navy had discovered some time ago that the maximum safe distance for direct system-to-system jumping was about thirty-five light-years, and thus the need for long-distance traversing technology had arisen. Fortunately, the Earth Historian had just such a technology available, and had integrated it seamlessly into the Lightships at the design stage. *Valiant* was most experienced at the technique, as she was the navy's primary Survey and First

Contact vessel. *Impulse* had also made a traverse or two before her untimely demise, but this was our first, and we aboard *Starbound* were proud of the opportunity.

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“Systems status,” demanded Maclintock of me.

“All green on my board, sir,” I said.

“Tactical,” he called.

“Safely inside the traverse bubble, Captain,” replied Dobrina. “All tucked in for the voyage to Jenarus.”

Maclintock nodded. “Just out of curiosity . . .” he started.

“I’ve got the visual display coming up now, sir,” I said, having anticipated his request. We all wanted our first look at traverse space. The primary display on the front of the bridge wall showed a charcoal gray backdrop with faintly visible black ripples passing through it in regular waves. I ran through all our external views and they showed the same pattern.

“Well, so much for that,” said Maclintock. I agreed with him. It was disappointing.

“And once again we have humanity’s typical reaction to the miracles of the universe,” chimed in Serosian. The captain looked to him.

“Forgive me if I’m an aesthete,” he said. Serosian shrugged.

“It’s typical, Captain, as I said, and not unexpected. Beyond that barrier are sights no man should see, and miracles no man could describe,” said the Historian.

Serosian’s words, spoken in all seriousness, sent an involuntary chill up my spine. Maclintock just stared at the Historian.

“Thank you, Lieutenant Commander,” said Maclintock to me. “That’s enough for now.”

“Aye, sir,” I said, and shut the display off, returning to a standard systems display. Maclintock stood.

“XO, you have the con. I’ve got a couple of dozen novels to catch up on,” he said. Dobrina rose to acknowledge.

“I have the con, aye, sir,” she said. “Enjoy your reading.”

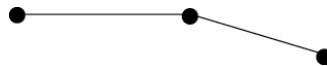
With that the captain was gone off the bridge. I came and stood next to Dobrina.

“Looks like we’ll have plenty of time for fencing the next two days,” I said quietly to her.

“Or other activities,” she deadpanned.

“Umm. Yes, well, I’d prefer to stay focused on my fitness for the moment. It makes those ‘other activities’ even more enjoyable,” I said.

“Speak for yourself,” she said, then headed off to do a station-by-station walkthrough. I smiled. I decided getting in plenty of both wouldn’t be a bad way to spend the next couple of days.



Two days later, we were four minutes from exiting traverse space into the Jenarus system. I was at my duty station sweeping across my boards looking for trouble, but finding none. That made me uncomfortable. I made a quick com call down to Duane Longer.

“How are we looking?” I asked, fishing for information.

“All nominal, sir. The sub-light HD drive is scheduled to cut off the moment we break the bubble in the Jenarus system. The chemical impellers will activate automatically and propel us out of the jump space tunnel and into normal space. From there our only concern should be winning the bet,” he

said.

“Which you had better,” I replied. “Thanks, Duane.” Serosian chose just that moment to enter the bridge and take his station, firing up his board with a sweep of the hand. The confusing glut of shapes and colors were a complete mystery to me, and I was glad I’d never had to learn them.

We all buckled in with one minute to go. Maclintock turned the countdown over to Jenny Hogan at Astrogation.

“Thirty seconds,” she called on the shipwide com from her second-tier station. “All systems green. When we exit jump space we will have traveled farther than any Quantar ship in more than two centuries. We are making history.” That was something we could all be proud of.

I looked to Dobrina, our highest-ranking Carinthian officer, but she had her eyes fixed to her board. Although we had similar duties, monitoring systems and such, I was much more engaged in the smooth running of the systems and she much more in the application of those systems to overall ship’s status. If she saw something she didn’t like, it was within her prerogative to shut that system down. I didn’t have that power, only the power to report problems and then to ride the lower ratings to get things running to her satisfaction.

“Ten seconds,” counted down Jenny Hogan. In that short amount of time she would disengage the hyperdimensional drive and shut down our protective Hoagland Field in the same instant, “dropping” us from a bubble of space in an unknown higher dimension and back into our dimension. Then our sub-light HD drive would cut out and our chemical impellers would kick back in, reengaging our mass in a forward motion to exit the large and unusual jump space tunnel at Jenarus. Only when we had exited the tunnel would we find ourselves totally in normal space again and able to navigate normally to the system’s home planet.

I gripped the arms of my safety couch as Hogan counted down to zero. The cerebral scattering associated with entering a jump was much different than when exiting. While all of our maneuvering actions of the ship were preprogrammed, we were not. We still needed a few seconds to reassociate ourselves to our own dimension, but it wasn’t as profound an effect, for some reason, as when we jumped out of our own dimension.

I was quickly on my board demanding reports. Everything looked green except . . .

“Lieutenant Longer,” I said. “Why is the sub-light HD drive not shut down?” I watched him scramble his hands across his board.

“Unknown, sir,” he responded.

I unbuckled from my seat and was at the railing in a second.

“If that drive is still engaged we could be pulled back into the jump space tunnel, mister,” I said.

“Understood, sir. The HD drive is shut down but . . .”

“But what, man?” I demanded.

“It looks like residual neutrinos were generated by the full stop, sir. It kept the drive engaged for a few microseconds longer than planned, sir,” he said.

I turned to George Layton at the helm. “Where are we, Lieutenant?”

Layton’s hand played across his board. “Point one five three AUs further into the tunnel than expected, sir,” he said.

“And what’s our heading?”

“We’re not in normal space, sir, we’re in jump space, so it’s difficult to tell, but it seems we’re losing ground to the star.”

I spun around and reported to my captain. “Our position is not as expected, Captain. We’re still in the jump space tunnel and appear to be drifting away from the exit, sir,” I said.

“How long until the impellers can pull us out?” asked Captain Maclintock. I looked to Longer, then over to Serosian.

“Uncertain that they can, sir,” I said honestly. “The chemical impellers are designed to work in normal space primarily, sir. We are significantly further inside the tunnel than anticipated. Excess neutrinos generated when the HD drive didn’t shut down properly appear to have displaced us from our landing point, sir.”

Dobrina stood up from her station. “Are you saying that the gravimetric energy of the Jenarus star is pulling us deeper into the tunnel?” she said.

“Yes, XO,” I replied. “The jump space tunnel magnifies the gravity pull of the star by a significant amount.” Maclintock looked to Serosian.

“Can we survive if we exit the tunnel inside the envelope of the star’s corona?” he asked.

“Very uncertain, Captain. Even with the Hoagland Field,” said the Historian.

“Solutions?” asked Maclintock. The Historian shook his head.

“None readily available, Captain,” he said. “The impellers aren’t strong enough to fight the pull of a star the mass of Jenarus. The jump space tunnel acts as a field magnifier for the gravity of the star. The more ground we lose to the exit point, the stronger the pull will be.”

“What about reengaging the Hoagland FTL drive?” asked Maclintock.

“That would actually make our situation worse. The gravitons generated by the drive spooling process would bond with those of the star, resulting again in a magnifying effect,” stated Serosian.

“And the sub-light hyperdimensional drive?”

“The sub-light HD drive generates neutrinos, which would cancel out the star’s gravimetric pull to a degree, but not enough to pop us out of this jump space tunnel. It’s highly unusual stellar topography,” commented Serosian.

“Are you implying that this tunnel might be artificial?” asked Dobrina. Serosian nodded.

“A possibility, Commander. But it would take a lot more study than we currently have time for,” he said. Maclintock stood and rubbed his face.

“So what you’re all telling me is that we have three drives on this ship and none of them can get us out of our predicament?” he said.

“Four, actually, sir,” I said, and instantly regretted it. Maclintock, Serosian, and Dobrina all turned their eyes on me.

“Explain, Commander,” said Maclintock. I shuffled my feet and took in a deep breath.

“I’ve been working with Lieutenant Longer on a hybrid drive, mixing the impellers with the sub-light HD drive. I had intended to use it only if it was required to win the bet, sir,” I said.

“Well, that won’t happen now,” said the captain. Then he motioned Longer to come up to the command deck and join us.

“Will this thing work, Lieutenant?” he asked. Longer’s face went a little pale, but he answered readily enough.

“Theoretically, sir,” he said. “Essentially, it’s a KERS, Kinetic Energy Reclamation System. The electrons generated by the HD drive can be processed in such a way that they can be mixed as a plasma with the chemical propulsion fuel cells. Sort of like a hyped-up hydrazine fuel source. In our tests we achieved almost a fifty-percent boost in output from the impellers, sir. But there is a risk of . . . a more explosive result, sir.”

The captain looked annoyed at that. “Say what you mean, Lieutenant. We don’t have time for mincing words right now.” Longer swallowed and cleared his throat.

“There is a twenty-one percent chance the mixture will cause a burst from the mixed plasma, sir



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