Rojack was mostly still frozen when he died. When doctor Li looked at him later, he reassured the rest that it had probably been painless.

The process of unfreezing takes a manner of days and it seems like Tareq was getting impatient. Ideally the cycle of helmsmen would would overlap, each one waiting till the next was free and about before going under him or herself. This did not happen, but one wonders what could have been avoided if protocol had been followed correctly.

Unfreezing and freezing are done gradually for a reason. When going under, if it happens too quickly, ice develops. When ice crystals develop, they have a nasty tendency to expand, rupturing cells, veins, brain tissue, and usually you want to preserve these things.

The solution was a solution, specifically of antifreeze proteins, taken from some krill long ago when the arctic still held ice. The introduction of these proteins stopped crystallization, which stopped tissue shredding, but it still took almost a hundred years to prefect the process. In the mixture were a thousand other patented concoctions, some of which had to be cooked up from scratch, tested and refined until fit for humans, and then further refined until the risk levels and side effects could be assured.

By the time Rojack stepped into his chamber, he was well aware that the chances of harm were indescribably lower than his predecessor pioneers. However, lower is not none. The freezing process is not just simple chemical or physical reaction. Nothing involving the human body is simple. It is a delicate dance of thermodynamics, chemistry, biology and computerization.

The computer systems in the med bay were probably some of the most expensive items on the entire ship and for good reason, every section of the body has to be regulated and finely brought to functionality in a specific order. Thaw the heart too early while the rest of the body is still vitrified and the organ tries to pump the augmented blood protein mixture around while it's still too viscous to move and bad things happen. Thaw the brain out too quickly before the heart and it starves of oxygen, causing massive damage or death.

All of this was known. So when Sepha stepped from her own chamber and was assaulted by warnings a error messages, she hoped for the best but expected the worst.

“Oh fuck...”

She got to the edge of the pod, while automated systems tried to help her out. She waved them away and unsteadily got to her feet.

She looked down the frigid pod chamber, her eyesight slowly focusing after years of stasis. The long hall was cyllindrical and the pods faced inwards like the seeds of some fruit. There were a full hundred passengers in sleep. Or at least there were. Rojack's container glowed a dull red.

“Oh, Rojack… you poor bastard. Maybe we can still do something for you…”

She hobbled over to the glowing pod, a data slab now appearing in her hand. They had been lucky. Whatever had caused the failure had been contained, or limited in nature. There were no hull breaches. There was no power outage. The reactor was still churning away. There were no other medical anomolies as far as the software was concerned.

Having reassured herself that they were not on the edge of some great disaster, she drew closer to the pod.

The outside of it looked no different, so physical trauma to the unit could probably be ruled out. They were supposed to be impact and crash resistant to a degree anyway. She investigated the glowing red screen on the unit and scrolled through leagues of messages, none of which were clear, but any of which could be the main cause of the fault. She knew enough about the system to diagnose, they all did, but not enough to fix.

She let out a rasping sigh and checked the small window in the pod, wiping away condensation that wasn't supposed to be there.

Bile rose in her mouth and the fought a sudden and horrible urge to throw up. The whole body was desiccated to the point of skeletization. The cooling had failed then, but the cleanliness and automated systems of the med bay had kept away any degradation. Instead it had been the air scrubbers. With nothing to keep fluid in the body it had been whicked away, bit by bit until nothing was left.

She extracted a small silver key from her pocket and leaned over the pod, searching for the hidden locked panel.

She had to crouch, knees screaming to fit it in properly.

“You deserved better.” She said, turning the system on.

Special diagnostics lit up, running the length of the damaged pod. She confirmed her position and password. Then automated systems double, triple and quadruply checked the status of the body in the pod. Then a robotic arm descended from the ceiling and confirmed those first sensor readings.

Finally the process was over and the pod sealed itself, pending further investigation and switched modes to preserve the body.

She straightened up, hands grasping the edge of the pod to righted herself.

She shook her head and then reacquainted herself with policy in the event of a crew death. The cause was still to be determined and it was her responsibility to figure it out. It was going to be a long month.

Captain Kuznetsov was not happy. This was not his first time in charge of a mission, although this was his first colonization effort. And he had seen things go south before, but this was a level of incompetence he rarely encountered, especially on his own ship. It seemed like Tareq had left his station without performing most of the required procedures.

On the other hand, a certain amount of alcohol and food had gone missing. Atmospherics logs indicated drug use.

Kuznetsov looked at the tablet in his hands with dissatisfaction.

“You were right to wake me. The sooner we can complete the requisite procedures, the sooner we all can go back to cold sleep.”

He looked around the table. Sepha, the helmsman, Lidia, the main engineer, and Owen, the head of security looked back at him with grim expressions.

“This kind of thing isn't impossible. It used to be much more common before the technology was developed. I had hoped this mission would have been safer.” He said briskly.

“But this just goes to show how important it is that we stay to procedure. Li, your goal is to determine the cause of death, and if it was due to automated systems we need to know. I'll not have another kuiper incident here.” The thin man nodded silently in response and jotted something down on his own tablet.

“Lidia. If this was something wrong with the non-medical systems somehow, like a power surge or other discrepancy, we need to know that as well. I took a cursory look at the reactor logs, but I'd like you to do a deeper investigation. As a second task, someone needs to take a look at my tablet here…”

He waved the thin, very sleek looking piece of tech around. “Most of the infoscreens are connecting correctly, but a couple are returning error messages. That needs to be fixed. And that brings me to the last piece of business: Sepha, I need to know our current progress. If there was a fault in something electric, we need to make sure it didn't interfere with the nav computer. If Tareq shirked some of his duties, we need to make sure he at least performed all of the requisite burns.”

He looked at their expression to gauge their reactions and gave them one additional order.

“And we're not waking the rest of the crew. Especially not Tareq. We can deal with the infraction when we arrive at Barnards.”

At this, the crew was less impassive.

“Don't you think Tareq deserves a chance to explain himself?” Li asked.

“Fuck explaining.” Sepha interjected, suddenly furious. “Did Rojack get a chance to explain himself?”

“We don't know that Tareq caused it yet.” Li said.

The captain eyed both of the members. Sepha was probably as horrified as he was by this whole thing. Tareq was, after all, supposed to be under her command as a Helmsmen Second. He'd have to deal with that at some point.

“Let keep this objective. Waking Tareq would just put everyone, especially him, on edge. We don't need that right now. Our duty is to ensure the success of the mission. We can yell at each other when we're basking under artificial light on Barnard II.”

“Hmm. Alright.” Sepha said, quieting down. “Its just so shocking. None of the aptitude tests hinted at anything. He passed with decent grades. I can't help but to feel responsible.”

But the captain just raised his hands, “As Li said, we don't know what caused the pod to malfunction. Lets figure that out. The sooner we can determine our status, the sooner we can continue. Alright?”

They nodded. He watched them file out of the room, but let out a deep sigh when they were gone.

However, it wasn't an hour or two when a knock came on Captain Kuznetsov's door.

It was Sepha. He was about to launch into a conciliatory speech about how the current circumstances weren't her fault and in fact she had performed correctly under abnormal events, but something stopped him before the first word came from his mouth.

Sepha was an interesting person. She was a bit of a hotshot at times, and said stupid things on occasion, but her skills had been unquestionable. But now she was not grinning or mad, her two usually states. She was in fact… scared?

“Helmsman?” he asked. She would explain whatever was causing that concern, or she wouldn't. No sense to pry.

“Captain.” She looked down the hallway to make sure the others weren't nearby before entering.

He stared, one eyebrow raised, almost afraid to ask what had put her on edge.

“We have a bit of a problem.”

He crossed his arms. “What kind of problem?”

“The kind that kills us all.”

“Navigation error...” He heard the words slip from his mouth

His mind was churning, trying to think of how they could reroute. There were no other stars or gravitational objects in the vicinity, sling-shotting was out of the question. So the only tools they had was the remaining fuel in the reactor, most of which would be required to stop the ship when they arrived at their destination, regardless of where that ended up being. They would think of something. They had to.

“Navigation error.” Sepha confirmed.

Even anticipating the response didn't make it any better.

“How did it happen? Do you know? Can you show me the logs?”

“Yes. Its best that you see for yourself. I've been over it myself about a half dozen times. I didn't want to believe it… But the sensors agree. We've deviated by maybe twenty percent, mostly out of the galactic plane. I'm still trying to figure out how the burn could have gone so wrong.”

He accompanied her down the hall to the end of the rotating section. They stepped somberly through the depressurized airlock and then floated through the next section till they came to the central computer unit which housed the navigation systems.

She stopped by the large screen and had to speak up over the whirr of the atmospheric systems which kept the computer systems within operational temperatures.

“Here. This is our plotted trajectory. The first hundred and thirteen sleeps and helmshifts went smoothly. However, right after Tareq went to sleep, looks like a week after, we ran into some interstellar gas cloud. It was too disperse to register on the forward scans, and the automation says we were going to fast to navigate it.”

She had brought up a diagram of their journey. He looked at the dotted path. Things had been going well. Three parties, so thirty years. The last time he and the rest of them had been awake was almost ten years ago and had everything gone right there would have only been one more. Fifty years of travel give or take.

“What the automation didn't, or wasn't able to realize was that the gas cloud had some significant velocity to it: A High Velocity Cloud. We know about them, but no ship has ever actually been through one. I guess until now.”

“So it pushed us off course. Did it cause any damage? Why didn't the navigation correct?”

“No damage, but as far as correction, that’s where my investigation is right now. These are complicated systems and this is highly unexpected input for them. Space is usually empty, and if you do hit something it usually kills you.”

“Sounds like someone needs to have a word with whoever contracted out the software.” he said, making a note. Risking the lives of a hundred people was significant, even volunteers. The software was supposed to deal with this kind of problem. Although it would take almost six years for whatever legal action he wanted to consider to actually get back to earth.

Sepha shrugged. “You can't account for everything. Presumably they were more concerned about more conventional problems, coordinate drift, power loss, impact redundancy.”

“So we're off course. Do you project we have enough fuel to reroute back to Barnard II?”

“I think so. Hitting the cloud was a double edged sword. It may have moved us out of the way, messed with our trajectory, but it also slowed us down.”

“Ah, normally that would have been horrible but we were already so far along...”

“Right. Even with the manual course correction needed, and if my models are correct, we actually come out slightly fuel positive from the whole thing.”

“Even accounting for the drain from the extra time?”

“Even so. But that extra time isn't nothing. We just added another five years to the mission.”

A crease appeared unwanted on the captains face. “You sure? Five years?”

“Look like it. Ill be able to give you better numbers when we come to a decision about whether to continue using the automated system.”

“If five years is what it takes, that’s what it takes.” he said, mostly to himself. “Its just us and physics out here.”

“Speaking of what it takes, I'll level with you. If its just me working on this, we might arrive before I figure out whats wrong. I'm a navigator. I can come up with trajectories all day long and they'll all be flyable. But these new systems are fiendishly complicated, and I didn't write them. I'm going to need extra sets of eyes to double check my investigation.”

“Do you need Lidia?”

“Not her specifically, although I'll take as many cycles from her as you allow me to. I imagine there are other things you need her to be doing. But I do need someone with some computer chops. And some of my other helmsmen.”

“You realize the more people we tell about this, the more likely it is that we're going to have some sort of disciplinary problem. That's why I only woke the people I did.”

“Hmm… Well, how about we pass it off as a training exercise?”

He paused for a moment, scratching his beard. He disliked lying to the crew, but he also needed to deal with the outrage that would occur if they told the truth.

“Ill think about it. For now, we can...”

A small screen flashed up on the nav computer, and an alert sound played.

It took a moment for the captain to make sense of it because the message was highly technical, but Sepha grasped the implications instantly.

“Thats… that’s impossible… Well, not impossible per se. Just infinitely unlikely.” He had lost her attention; she was fully focued on the screen now, working through logs and sensor output.

“Those are the forward range scans right?”

“Yes...” She said, distracted, her fingers flying across the keyboard. Windows were filling up the screen and her gaze shifted from one to another.

“And those numbers are much higher than what I'd expect. Could it be more gas?”

“It could, but it wouldn't explain these other results…” She trailed off. She was in her zone. He knew when to let people work. But he also couldn't completely ignore the anticipation or concern of whatever new conflict was presumably heading their way.

“…Not gas then.” She finished writing some query up and waited for a second, the results splaying down the screen.

“Well. Congratulations Captain. We just found ourselves an exoplanet.”

Soon they were all huddled around the same screen, watching the new sensor data stream in, minute by minute.

“So what are we going to do?” Lidia asked, voicing the question that was in everyone's mind.

The captain shifted a bit but said nothing.

She wasn't completely sure, but she didn't think this had ever happened on any mission, ever. Typically, things were planed out year ahead of time. The route was scanned meticulously. But planets were hard to detect. And as far as they could tell, this one was a rogue planet. It orbited no star. That meant it was almost impossible to detect, as most planets were still found via wobbles in its star's movement.

“We are going to follow procedure.” The captain said.

There was no surprise there. Lydia had known the captain for longer than most of the others on board, and had been on several smaller missions with him. He was a stickler for the rules, but was also a fair and intelligent person. She did trust his judgment, but this trifecta of sudden occurrences would strain the abilities of the best mission lead.

“So what is procedure in this case? I believe we are simply required to scan as much of it as we can?” Lidia said trying to hide her dissapointment. “I guess we're going far to fast to put into orbit around it?”

But helmsman Sepha spoke before the captain could respond.

“I don't think you people realize how much this changes things. All the equations need to be re-run from scratch, and I still may not be able to trust the automation.”

“How much does this planet affect our trajectory? Theoretically we should be able to course correct from the gas without using fuel now.” The captain noted.

But Sepha would not give in that easily, “Theoretically is the right word. These sensor readings are giving me some idea, but we simply don't have a good estimate of what the mass of this thing is. No one found it before hand; it has no star to observe, or even, as far as I can tell, a moon. There are methods for this, using just active sensors, but they take a bit of time because of the variance.”

“So you're saying we're in the worst of both worlds?” Lidia asked.

“Correct. I can obviously avoid it by burning and observing on an active path, but knowing where we will be aimed following that is hard to say. Need I remind everyone we're traveling at close to .15c?”

That quieted everyone down. The prospect of getting things wrong was disastrous. At worst, they would be obliterated. Only slightly better than that was the possibility of getting flung off into space with no hope of recovery.

“Point taken Sepha. I think we need to reevaluate our priorities. Unfortunately, this means Li, you'll have to continue your investigations into the pods without Lidia. I believe her expertise with the reactor and knowledge of the propulsion systems will be needed to plot a proper course if we're required to really strain things.”

“So that leaves us with just the navigation error and the planet. Its clear at this point we need as many eyes on this situation as possible. Tell me who you need and we'll wake them.”

“How much time do we have?” Owen asked.

They turned and looked at the large man behind them. It was a good question.

“At current rates, assuming we don't slow ourselves, we have a month or so. But we can't let that fool us into thinking we have a huge amount of time. Every day that passes reduces our ability to plot a good trajectory. If we wait too long the best I can assure you is that we wont hit it.”

“Will we even survive a slingshot?”

“Depends how close we are, and how much acceleration we get hit with on the curve. But at .15c for sure if we're too close it'll just rip us apart. The mass of that thing is key to it all.”

“Can we observe our current path and theorize about the mass using the deviation from our expected course?” The captain asked.

“We can, but there are some assumptions in that. The most important ones are our error bounds on our velocity, and our hope that there is not more of that gas, or another one of these planets. Also, I hate to say it, but there's something… wrong with this planet.”

Several eyebrows were raised.

“What do you mean?” The captain asked, the crease above his eyes getting even more pronounced.

“First things first: diffraction says its a solid planet, rock or ice. So the gas didn't come from it. But I've done all the things I mentioned so far for getting an estimate of its mass. And I also know its shape and size roughly. We're close enough for visuals.”

Sepha flicked the mouse around and a grainy image appeared of a fuzzy pale blue dot.

“Huh.” The captain said, and peered closely at it. “So what exactly is the problem? The blue is surprising.”

“Yeah, its false color, right?” Lidia asked.

“Of course. There is no star to illuminate it. Thats the computer interpreting the wavelength. But the thing is these numbers are just too damn large. Every time I run things, I'm getting back ridiculously large values for its mass.”

“Do the values agree with one another?” Lidia asked. Sepha was a good helmsman, but Lidia knew to double check her work on occasion. It was never wrong, but she could miss little things.

“No.” Sepha admitted. “They disagree by more than I'm comfortable with. But even taking that into account, the lower bound is still unbelievable. The planet is smaller than the earth, but its mass is estimated to be twice Jupiters. And for a rock planet… I have no idea what it could be made of to get those numbers.”

The others paused in amazement, but Lidia shook her head.

“Well that’s easy then. Our sensors are wrong. That might explain the malfunction as well. Some sort of power surge or system crash. We could be reading from garbage in memory and not even know it.”

“But couldn't that also explain the failure for the automation to account for the gas knocking us off course?” Sepha asked.

A sudden fear gripped Lidia.

“You actually might be right, and I was going to ask you about that. We've been burning irregularly ever since we got up. On and off over the last day or two. I thought you have been making course corrections and so I ignored it.”

Now Sepha also looked alarmed. “It wasn't me. I wouldn't change our course unless I was sure the numbers were right.”

“Then its the automation trying to account for our deviation. But the planet isn't in its system. No wonder its so confused. It makes a change and the gravity of that thing is messing it all up.”

The captain shook his head and laid a single hand on the desk. People noticed. The captain never got angry, but he did get… clear.

“We have to turn it off until we can feed it the proper data. Even if its doing the right thing, which I'm not sure it is, protocol dictates that in these situations, conserving fuel is paramount.” He paused for a moment thinking things through. “Then we have to turn off the automation if its wasting fuel. And we need to be sure of our sensor data.”

“I've often wondered if those were written with liquid fuel ships in mind...” Sepha said idly. But the captain eyes narrowed. “Ill turn it off right now! Ill need your authorization Captain.” She said, jumping to the keyboard again.

After a few seconds, the subtle acceleration they had been feeling, but hadn't noticed, stopped.

“So now we're manual.”

Lidia doubted any mission had ever gone completely manual like this but she did not voice those thoughts. Instead she came to the same conclusion as the captain.

“Then we have to make sure things are working correctly, and do it fast enough to make a decision on our course around the planet.”

“Agreed.” The captain said.

“Ill hold us steady for now.”

They looked at the screen with apprehension as the strange planet got closer and closer. They were going to have to fix things and they were going to have to do it fast.