

The Last Actuary

by: Melvyn R. Windham, Jr.

One-hundred and thirty six days. That's how long I lasted on board the *Interstellar Charles*.

I sat with my coworker Frank in the dark observatory staring at stars projected from outside, corrected for spin. The brightest star was our sun, some 75 astronomical units behind us. We were going a half percent of the speed of light, but I could see no movement. For all I could tell, we were just sitting in the middle of space going nowhere.

Three months prior, the observatory had been packed with people watching Saturn pass by, but now, hardly anyone used it. It was the perfect place to work out my thoughts.

"I don't understand why they picked me," I said to Frank. "I'm an actuary. Do you know what that means?"

He patted me on the back and said in his Korean accent, "Yes, I know, Sam."

"Why do they need an actuary? There's no money on this ship. All of our needs are met. We don't need insurance. Am I just a warm body to work in Hydroponics?" I winced right after I said that last part, as Frank had been an actual botanist. He really belonged in Hydroponics.

"You do a good job."

"But I'm bored. It's numbers I'm good at. Creating models. Running them. Predicting the future. Making sure reserves are adequate. I really miss the work."

"Hydroponics is important, too. Without us, no one would survive the trip to Shinseng."

"Look at me," I said. "I'm not young like you. I'm 51. My back is killing me. I'm forming cataracts. And let's be realistic. We have—what—51 years left till we get there? I'm

not going to make it. When I die, I'm going to be nothing but a fading memory that everyone forgets. You'll be an old man, yourself. Our children are the beneficiaries. Not us."

"Yes. You have a point."

"I know this is humanity's last shot. Earth is dying. The probability of mission success is low, but I don't blame these guys for trying." At that moment, the fusion drives kicked in. 0.05 Earth gees pulled toward the back of the ship. Now that it was officially nighttime, Julie was probably wondering where I was.

Frank said, "Yes, though I don't understand why they have to be so secretive about the whole thing. Who's going to stop us?"

"I just can't shake what it took to get here. You know how they faked our deaths? They staged an explosion in our apartment. It wiped out five other units. Several of my good friends were killed for our sake, and just so I could tend space plants? Was it worth killing those innocent people? Was it any different than what the anarchists do?"

"Not really."

"Not just that," I said, turning to my friend. "I had a job. Chief Actuary of a small insurance company in Detroit. I may not be the smartest actuary, but I was good at my job. I fought like crazy keeping our company afloat, but with so much property damage, the claims were getting to be too much. We couldn't raise our premiums high enough. Without me, they don't stand a chance. And, that apartment of mine that blew up? It was covered by the same company. Just icing on the cake."

"Are you telling me things were better on Earth for you?"

I paused. "In some respects, yes. At least I was important. People looked up to me in the office. I could dive into the math and for one brief moment stop worrying about when the

next anarchist attack would hit our neighborhood and kill my family. I know life is much better up here. Everyone is so nice. No more attacks. So peaceful.”

“Yes. We have it good up here.”

“Did you know there are no other actuaries on board? Not even any economists! There are a few mathematicians and most of them get to work in Propulsion, plotting our course through space. I could help them—I know more than just insurance. So, yesterday I walked right up to President Agarwal and told him my talents were being wasted, and asked him what I was supposed to do. And you know what he said? ‘I am sure you will figure it out.’ And then he walked off. He doesn’t care about us.”

Frank snickered. “If Earth dies off, this makes you the last actuary.”

“What good it’s going to do me! Face it. You and I are expendable. If any of us dies, what would happen?”

“They’d just replace us.”

“Yes. I won’t be missed.”

“Well,” said Frank. “I’m not going to try and talk you out of it.”

“You promise not to tell anyone?” I said.

“Of course I won’t.”

“Thanks. You’ve been such a good friend.”

“Oh,” he said. “You’re wrong about one thing. *I* will miss you.”

I got up, exited the observatory and walked out into the Open. I looked up and down the full length of the lights that hung in the center axis of the cylinder that was our new home. At night, when the lights simulated the soft light of a full moon, it was easy to see the curved

ground above and take in the full majesty of what they had built. Trees, grass, rivers, and buildings – all resembling Earth.

I could have taken a autocab to my house, but decided to walk, knowing it would take an hour, giving me one last chance to view the future of mankind and feel how little it made me. It took decades to build, and my death would not slow them. For one last time, I enjoyed walking through the breeze caused by natural convection, and smelling the pine, just as good as on Earth, minus all the pollution. I would miss it all.

When I arrived at home, everyone was already asleep. Jim and Clarissa lay peacefully in their beds. I gave them each a kiss on the head. In my bedroom, Julie lay on her side of the bed, but I chose to stay away. If she awakened, I'd get a lecture. "*Where were you?*" Then it would stop my plan, when I needed to remain diligent. The pain needed to stop.

I quietly entered the bathroom and pulled out the sleeping pills, downed them all, and then it was done. Instead of lying next to wife, I went to the couch. I knew she would find me in the morning and then it would be too late. They'd miss me, but then they'd have the full support of everyone else. Our children would go on and settle Shinseng. They didn't need me.

I closed my eyes, tasting the bitterness in my mouth, and trying to imagine what it would be like when my kids got there.

#

A bright light awakened me.

"Why do you actuaries always have to be so dramatic?" President Agarwal stood over me.

Lying in a hospital bed, I said, “Crap.”

“It was an easy matter to pump your stomach. Why did you do this?”

I was still weak and thirsty. “Why did you bring me back?”

“We need you. After all, we do not have any backup actuaries. My fault, entirely. I am surprised that you would be the first to try, and so soon! We figured we would last another five years before people started offing themselves. Now we must do all we can to keep this quiet. Julie brought you in, but she has no idea what you have done. We told her that you have a severe ulcer. We have even replaced your sleeping pills at home.”

“You did what?”

“It is of utmost importance that you tell no one what you have done. If it gets out, it would start a chain reaction, and we are not equipped to handle this right now. We need more time to prepare the community. You must promise me that you will tell no one – not even your wife. Do you promise? I need an affirmative answer before I let visitors come in to see you.”

I didn’t understand the paranoia. He certainly seemed to care more for his precious colony than he did for me, but I was willing to play along. “Sure. But why me? You could have picked anyone to farm, but I’m an actuary. What kind of life is this for me, especially if I don’t live long enough to see Shinseng?”

“I promise that you will live a fulfilling life. Everyone here is important. Not just that – you are all *chosen*. I personally approved each family, down to the last individual. You can help us avoid future suicide attempts. Help us know what we can do to make people happier.”

“I can tell you what makes me happy,” I said, trying to grin. “Advanced mathematics and statistics.”

President Agarwal paused with his finger on his chin. “Fascinating. Even though you are free from the troubles of Earth, you would rather return to your old line of work. I’ll tell you what. Today you rest, and tomorrow I will have you meet the Board. They will want to hear what you have to say.”

#

While Julie came in and cried all over my chest, I assured her that the doctors caught the ulcer in time and I’d be on my feet in no time. I wanted to tell her the truth, but found two reasons not to do so. The President had asked me not to, and Julie would hate me if she knew I attempted. After she left, I slept the rest of the day.

I had a big breakfast the next morning, and then a nurse brought me clothes for me to change into. I had an appointment with the Board at 1000 hours. After months of trying to get their attention, I finally had it, and I wasn’t exactly sure what to say. What compelling reason was there to support the idea that I had to do something more exciting than planting trees and crops?

When I entered the conference room, the Board met me with full smiles. They had me sit at the head of a table, which all signaled that I had underestimated their sense of importance in me.

President Agarwal spoke first. “We have been looking forward to this meeting. It was supposed to happen years from now, but it appears the timetable has been pushed forward.” Four other Board members sitting around the table laughed nervously. “Do you know why our ship is called the *Charles*?”

I had wondered over the past few months, but had never asked anyone. “Charles Darwin? Survival of the fittest?”

“That is part of it. Like I have said before, we have chosen the best people. However, there is a lot more to our ship’s name, as we will now explain to you. First, have you met everyone in this room?”

I looked at the two men to the left of Agarwal and the two women to his right, and I pointed to the short Korean man. “Kim Minkyu. I see him at least once a week.” I knew my boss all too well.

Minkyu answered cheerfully, “Yes, you are one of my best workers. So much attention to detail.”

President Agarwal said, “Dr. Kim is our Head Botanist. He is in charge of maintaining balance in our ecosphere. He has also laid out our plans to colonize the very planet that he named. Next, I am sure you recognize Captain Ortiz over ship operations and security.”

She stood and smiled. “Pleasure to meet you. You may call me Victoria.” I knew the probability of me doing so was low, but I nodded, still a little unnerved at how nice these guys were trying to be.

“This white-haired man,” Agarwal continued, “is our chief scientist, Antoine Vincent. He is the architect of our whole mission. He designed our spaceship and found our planet even before we began construction.”

“I look forward to working with you,” the scientist said.

“Last but not least,” said the President, “this is our head Medical Officer, Charlotte Ricard.”

Her blond hair, skinny frame, and youth stood out from the lot. “Good to meet you. We have quite a lot to discuss.”

“Before we begin,” said Agarwal, “you must understand that what you are about to learn must be kept strictly confidential. Should word of this reach the Earthists, our mission could be in serious jeopardy. The five people you see in this very room are the only ones who understand the full picture and our true mission.”

The Earthists were a large fringe group in China and North Korea who believed everyone needed to stay on Earth and fix the problems. They were not beyond using terrorist acts to hinder space exploration, and they had many sympathizers around the world.

Agarwal continued. “For everyone’s safety, we need your assurance that none of this leaves this room.”

“Sure,” I answered, knowing my uncertainty was showing. What could they tell me that would make my depression go away?

“Okay, then,” said President Agarwal. “Yesterday I told you that we had made a mistake. We figured one actuary would be enough, but we can fix that going forward. Along the journey, you can cross-train other mathematicians to do what you do. Then we’ll be more prepared should something happen to you.”

“If you don’t mind me asking,” I said. “Why do you even need an actuary? Our community has no money and no need for insurance.”

Minkyu, my boss said, “Oh, we have much need for you. You just don’t realize it yet. Once we arrive at Shinseng, things will be different.”

I laughed sarcastically. “I’m not going to make it all the way to Shinseng.”

President Agarwal said, “Dr. Ricard, I’ll let you explain.”

She smiled and stood with excitement. “How old would you say I am?”

Was she flirting with me? I looked her over and answered honestly. “I don’t know. 45?”

“What if I told you 73?”

“What?”

“Yes, I have successfully halted my own aging. Not only that, but once it’s safe to do so, I will reverse it.”

“That’s impossible,” I said. “How could you go three decades without aging and not have anyone notice?”

“That’s simple. Don’t publish in the journals. Keep a low profile. It’s amazing how unobservant people can be when you’re nobody.”

“Can you really reverse someone’s age?” I asked, realizing I was thinking about myself.

Dr. Ricard gave me another excited grin. “I’ll put it this way. You’re going to see Shinseng, and you’re going to be busy.”

I paused, considering what this meant. I wouldn’t die in a couple of decades? “You’re kidding! How did you accomplish this?”

“We have solved the telomere problem. We age because the telomeres in our genes shorten, and then our cells die out. We’ve learned how to lengthen the telomeres with the help of stem cell manipulation.”

“That’s amazing,” I said. “Though, I have to be honest. I don’t know how much longer I can live on with these back pains I have.”

“Oh, we can fix that. We can straighten out the spine, remove bone spurs, and even remove the tendency to form spurs. We can completely repair discs, and so on, all because of stem cells.”

“And bad eyesight?”

“We can reshape the eyes, rebuild parts, and as a last resort, install bionic lens implants.”

“What if someone is paralyzed?” I asked.

“We can build a whole new nervous system. With 3D printing, bionics, stem cells, and DNA sequencing, we can rebuild anything.”

What did this all mean? How long did they have this knowledge and technology? Why wait to use it? I asked, “How long can you extend the human lifespan?”

This time the excited smile turned into the most solemnly serious expression.

“Indefinitely.”

The word floated through the room. These guys were not joking. “Immortality?” I said. “Why don’t you release these findings on Earth? It could save many ...”

Suddenly I realized why they had chosen me. They couldn’t save the people of Earth, because there were too many of them. Everyone would fight and kill for the privilege of living forever. It was more humane for us to sneak off and find a new planet. No wonder these guys wanted to keep it a secret.

“You guys read my paper, didn’t you?” That was two decades ago, and it was not well received by the actuarial community.

Dr. Ricard said, “Yes, of course it caught my attention. *On Efficient Population Control*. You postulated what the fastest way was to gain balance and obtain the optimal global population level. Of course, no one wanted to hear it at the time.”

“That’s what you want me to do. If no one dies, population control becomes a very important issue. You need someone to do the math and determine how many may repopulate and when. What good is relocating if we let ourselves grow too large for the planet again? I’d have to change my calculations, though.”

“Yes,” said Dr. Kim with a happy laugh. “That is why you were assigned to my team. Together, we will achieve balance—at first here on the *Charles*, and later on Shinseng. You know math, but now you need to understand plants as well.”

“Wow, that sounds exciting,” I said. “But, wait. Wouldn’t we all get bored after a few centuries?”

“Our arrival at Shinseng,” said Agarwal, “is only the beginning of our journey. Then we will embark on our ultimate mission. It is the real meaning behind the name of our spacecraft.”

Dr. Vincent said, “I can explain. We humans are the product of more than a million years of evolution. Through natural selection, we have evolved into creatures with superior brains. Up until now, that evolution has been *natural*, but even in the recent past, we have come to shape evolution with *artificial* means. For example, we’ve helped to change animals through domestication and selective breeding. We’ve done the same with plants, creating strains that are more capable of surviving the elements. Plus, we have the technology to take this to the next step.” The man spoke with a slow old voice, making it difficult for me to imagine him ever being in his prime again.

He continued. “We have the power to resequence DNA and change our own makeup. It will take us a long time to fully unlock the code, but as we figure it out, we can improve our bodies. Perhaps we find out how to integrate with machinery. Or we figure out how to create indestructible bodies, or learn how to live as pure energy.

“We will need to overcome several challenges in the long run. We already know we can’t stay on Shinseng forever. Also, this universe won’t last forever. We can spread out, learn the mysteries of the universe, and possibly even learn to transcend everything and continue on in another younger universe.”

In the solemn silence, I considered everything that had been said. If we were still on Earth, I would have dismissed it all as a strange cult, but these guys had it all planned out. They were serious, and they had a chance of success. If we made it to Shinseng, the chances increased significantly. “Okay,” I said. “When are you going to tell this to everyone else on board?”

“Once we reach the point of no return,” said Captain Ortiz.

“What?”

Dr. Vincent said, “In twelve years, after we have cleared the Oort Cloud, we will engage the antimatter drive. For three whole months, we will put ourselves in stasis and accelerate at three times Earth gravity. When we come out of stasis, our velocity will be one-third the speed of light, and we will then have just enough fuel to slow ourselves down and arrive at Shinseng. Thus, after the three months of acceleration, a return trip to Earth would be impossible.

“Now, we are vulnerable to Earth attacks. If the Earthists find out what we’re up to, they might be able to send missiles that can go faster than us, home into us, and destroy us. But once we hit the antimatter drive, Earth missiles will never reach us. Only then will it be safe.”

President Agarwal said, “And that is why you can tell no one at this time. Not even your wife. Even though we have vetted every single person, there is no guarantee that we have weeded out all Earthist sympathizers. At the same time, we would like to ask you to join the Board as an assistant to Dr. Kim. We will announce your function as an actuary in helping to

control our population while in transit. You will get to choose from our mathematicians and scientists to join your staff.

“In secret, we will continue to consult with you on how we can help others avoid suicide. I believe that once everyone knows our true mission, then there will be much more optimism and purpose, but until then we will need to find other ways to keep everyone busy and happy.”

“I’ll do what I can,” I said. One thing was for certain. My depression had finally lifted.

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After the meeting, I checked out of the hospital, and I returned to my happy family.

Julie gave me a hug, with the familiar strawberry smell wafting from her hair. “You don’t know how worried we were. Imagine coming out here to be safe from Earth, only to lose you to my cooking.”

“Your cooking?”

“Yes, I’m so sorry. There won’t be any spicy foods for you for a while. Doctor’s orders.”

“Oh, come on. You’re a great cook. You don’t have to change anything. I have medicine for that, now.” I wondered if she could see my guilt. Would she ever guess what had been going on in my head? Could I ever make it up to her?

She gave me a kiss, and suddenly everything felt as if it would all be fine.

The next day, I went back to work in Hydroponics. Minkyu asked me to work the evening shift so that afterwards we could have a planning meeting. When I arrived at work, my

day-shift friends said hello/good-bye and patted me on the back as they went on their way back home. All except for Frank who was just now coming in.

“Frank!” I said. “What are you doing here?”

“I heard you’re working the evening shift, so I asked to switch with Gerome. How are you feeling?”

“Much better. That was really stupid of me. I wish you had tried harder to stop me. I should have never done that to my family.”

“Well,” he said, looking a little awkward, “it’s good to see you’re back to 100%. Let’s get some harvesting done.”

That evening, we worked at the very tail of the ship, a zone I had never worked before. The flat part of the cylinder stood in front of me, a large circular wall. I walked up to it and touched it, imagining the engines that were just on the other side.

Toward the end of the day, after the lights had gone to half power for twilight, our shift came to an end. As instructed, I stayed in place while the other evening workers left. When I was alone, Minkyu came over to me. “As usual, you’ve done a fantastic job. You may not realize yet, but you’re going to miss working the fields. What do you say about getting down to work?”

“Sure.”

We went on for about ten minutes, planning out the role I was going to have. Then suddenly Frank appeared, carrying a harvesting torch.

“Hey Frank,” I said. “I forgot to tell you, Minkyu said he needed to see me after work. Sorry about that. You should go on without me, and I’ll catch up with you tomorrow.”

Instead of responding, Frank brought the harvesting torch up to Minkyu's chest and turned it on. Minkyu gasped in surprise as a hole replaced the front of his body, and he fell over instantly. The air filled with the smell of sick bacon.

"Frank! What are you doing?" I yelled.

He turned to me and said, "You just killed Minkyu, you stupid actuary."

"What? You're not making any sense."

"Oh, you're so stupid, you don't even know how to die."

"Calm down. Why are you so angry?"

"With you and Minkyu out of the way, they'll have no choice but to abort the mission. You ignorant Escapists will have to turn around and return to Earth."

"You're talking like an Earthist."

He swung the harvesting torch at me, which wasn't on, and knocked me unconscious.

Next thing I knew, I was spinning in darkness. It was so cold. I heard nothing except for the whine of the blood running through my ears. I couldn't breathe. An object flew by from the top part of my view toward the bottom – something big and large blocking a star field? After a few seconds it spun past again, and this time I recognized the pattern of blue glows, which were consistent with the protruding engines of the *Charles*.

How close were we to night? Were the engines warming up? If they came on now, I'd be dead. Perhaps I was already dead. Both my eyes and ears felt like popping – a pain so great I had never felt before. I closed my eyes, trying to protect them as much as I could. My blood felt like it was boiling, and my whole body burned and froze at the same time.

I blacked out with the last thoughts of confusion and wonder.

#

When my eyes opened again, I saw none other than the beautiful Charlotte Ricard smiling over me, beaming with triumph. “Welcome back,” she said.

I was attached to several machines. Looking around, I saw President Agarwal sitting in a corner of the room. My eyes seemed to zoom and focus on their own. Also, my back pain was gone.

The hospital room smelled the same as always – chemically sterilized. I chuckled to myself, wondering if our advanced technology would ever do anything about that smell.

“I thought I was dead,” I said, my voice scratchy.

“You were,” said Charlotte. “Well, not quite brain dead. We were able to repair the rest.”

“Where’s Julie?”

President Agarwal answered, “She is waiting outside. We need to talk to you first. Who tried to kill you?”

I paused to think, as it seemed so long ago. “Frank. He killed Minkyu. I didn’t do it!”

“We know it wasn’t you,” said Agarwal.

Captain Ortiz, somewhere behind me said, “Frank, the Korean one? I told you. Excuse me.”

Agarwal continued. “He tried to make it look like you took out Minkyu and then proceeded to commit suicide.”

“However,” said Dr. Ricard, “they failed to account for one small fact – something I kept secret from everyone except the President here. When you came in for your ... first incident, I planted a chip inside you to monitor all of your vital signs.”

“Yes,” said Agarwal. “As soon as you were ejected into space, we picked up an immediate alarm. At first we did not believe the location. Within seconds, we ordered an emergency shutdown of the engines, and a couple of minutes later, we had you back inside.”

“Slow down,” I said. “How long have I been out?”

Dr. Ricard paused. “Eighteen months. It took us a while to put you back together. Our new technology is amazing, but you were in bad shape. We had to grow entirely new systems.”

“Eighteen months?” That was a long time for my wife and children to be worrying about me. How much had I missed of Jim and Clarissa growing up?

“This makes you the first official patient of this technology,” said Dr. Ricard.

“Could you bring Julie in now?” I asked.

“Sure,” said President Agarwal. “In a couple of minutes. There is one more thing I need to ask. Now that there is a new opening on the Board, we’d like for you to consider accepting the position as the Head of Environmental Balance.”

“Wow.”

“We can meet tomorrow as a Board to discuss.”

Shortly after that, Julie and the kids came in to see me. Among all the crying, kissing, and hugging, I couldn’t help shake the new heavy burden that had been placed on my shoulders.

#

After a day of rehabilitation, the Board decided to meet in my hospital room. The nurse helped me sit up in a chair.

President Agarwal started the meeting. The first item on the agenda was the official nomination of me, Sam Peters, as Head of Environmental Balance. I accepted the nomination, and then I was voted in. Then I received the rest of my briefing.

Captain Ortiz said, “We’re not sure how much the Earthists know, but they do know that we’re out here. As soon as Minkyu was killed, we decided to go ahead and run the impulse engines nonstop. We can no longer play baseball, but we’re getting used to it.”

“So far,” said Dr. Vincent, “we have detected no missile signatures. We’re not sure how organized the Earthists are, and whether they can pool together the resources. First they’d have to find us, which they can do through spectral analysis. It’s very likely Frank has been providing our location, so they may know where to look. Even then, they’ll have to complete their calculations and wait for the right window of opportunity. In the meantime, we may be able to vary our course and throw off their calculations. However, in a couple of years, we’ll have to conserve fuel for the deceleration, so we’ll have no choice but to coast the rest of the way through the Oort Cloud. At that time we may be sitting ducks.”

The Captain said, “Some of us have concern that the Earthists might build a faster ship and beat us to Shinseng.”

“Impossible,” said Dr. Vincent. “It took us decades to gather and assemble the asteroids to build the *Charles*. Even if they somehow accelerate construction, it would take them at least eleven years to reach Shinseng. We would have too much of a head start. We have plenty of time to wait and see what happens. It would only take us a week to prepare everyone to enter stasis, and then we could turn on the antimatter drives ahead of schedule, but then our chances of

defeat increase, as it would take only one large rogue asteroid in the Oort Cloud to destroy us, and the computers might not be able to avoid a collision at such high speeds.”

Captain Ortiz huffed. “We may not have a choice when we identify a missile signature, and then we might not have a week to jump.”

President Agarwal held up his hand, gesturing for calm. “As you can see, Sam, we are currently in a state of flux. Perhaps you could run calculations of the odds and help us determine if we should go ahead and turn on the antimatter drive.”

“Sure, I could look into that. It would be a lot of variables to consider, though.”

“More importantly,” said Dr. Ricard, “we do have a general situation on our hands with the people. The news of your attempted murder has set everyone on edge. Now they know that Earthists may be among us. We have Frank in custody, and after his court-martial, he will be immediately executed. We’re unsure what effect this will have on the people. An execution could either calm them or make the situation worse.”

Ah, yes. What to do with Frank? I had given the matter much thought, but I needed more information to determine what to say.

I asked, “Do the people know everything? Immortality, evolving, and so on?”

Dr. Ricard answered, “Not yet.”

“And what about other Earthists on board? Did we catch them all?”

“Frank worked alone,” said Captain Ortiz. “But we have no way of knowing if others exist. We couldn’t even figure out Frank until you identified him.”

“Okay, the first thing we need to do is to tell the people everything – today. Sure, we may risk the Earthists finding out, but I believe it’s safe to assume they’ll try to stop us anyway,

and that's only if they can. We might as well begin anti-aging treatments. I'd hate to lose Dr. Vincent in the next decade because we didn't want people to know our ultimate plan."

Dr. Vincent chuckled.

"If we tell the people," I said, "it will give them purpose and hope. Just knowing that we will all live to see Shinseng will be enough to keep others like me from killing themselves.

"Also, I would suggest holding off on Frank's execution."

Captain Ortiz scoffed. "That's not an option."

"Hear me out. We can keep him in custody until we reach the point of no return. He told me himself that all he wants is for us all to return to Earth. So when it becomes too late, I don't think he will commit any more sabotage. On the other hand, If we execute him now, it may signal to other Earthists that there is no place for them, which may cause us more problems."

Captain Ortiz asked, "What do your calculations say? Is Frank's life necessary for our survival?"

"No," I answered truthfully. "He can be replaced, but showing forgiveness could go a long way."

"Then a compromise," said Agarwal. "We'll wait eleven years, and then when we come out of stasis, we'll revisit."

#

Fifty years later, we are now in orbit around Shinseng, which means *New Life*. The atmosphere is a little more poisonous as we had hoped, and there is no life, but all the materials are there. It will take us a thousand years to terraform, a drop in the bucket compared with

eternity. Though, I've had to adjust my population calculations. We're not quite ready to increase our population.

We've already begun building bases on the surface. In a couple of decades, we'll be able to move everyone down.

Our trip had gone exactly as planned. We never saw missile signatures. It appears the Earthists could never get their act together. Or perhaps they had given up and decided we were too far gone. Perhaps something disastrous had happened on Earth, or a cascade event brought everything to an end. Either way, we no longer receive signals of any kind.

As for Frank, we let the people decide his fate after we had left the Oort Cloud. They decided that murder could not be tolerated, no matter the reason, and so he was quickly put to death.

Now everyone, and I mean everyone, appears to be in their thirties. Dr. Vincent and Dr. Ricard got married. Both Jim and Clarissa have taken up being actuaries and they have joined my team. I couldn't be any prouder. President Agarwal gave up his position so others could have a turn, and Julie has taken a role as the new President's Assistant.

There is nothing but exciting times ahead of us.