# **HOWERail**

# By Henry Thomas

June 4<sup>th</sup> was the day I left. I had a backpack and two suitcases' worth of stuff: clothes, books, and some drinks from Galco's (Hikari wanted to try more American soft drinks). I took the K line of the SoCal Monorail; it connected the Thousand Oaks HOWERail terminal to the Regal Los Angeles Station near Macarthur Park. It was one of the most packed of the Monorail lines, but it had a station within walking distance of our apartment, and moved much faster than Highway 101 ever did. My dad was waiting for me outside the Thousand Oaks Terminal station; he got off work early today to say goodbye.

"So – your first time on another planet!" he said, walking up to me.

"You know it's just passing through, right?" I replied. "I'll still be breathing Earth air and all."

"I know. But it's still exciting, isn't it?"

"...yeah, I guess so."

"It was for me the first time. You know what they say, it's not the destination that's worth it, it's the journey!" He made one of those cheesy poses he usually made when saying something cheesy like this. He never really outgrew being a cheesy theater kid. But he knew when to whip back into a normal adult demeanor: "But they're wrong, I know you're more looking forward to hanging out with Hikari."

"You got me there," I chuckled.

"I can't blame you. I remember what it was like, being young, in love, ready to travel halfway across the world to meet them. At least you've got it easy. Have I told you about the plane ride to Birmingham?"

"Yes. Several times. I don't need to hear it again."

"But it's a good one!"

"Dad, no. I don't have the time."

"Okay, okay, I won't. Well, I hope you have a good time out there! Bring me back a cool snowglobe, will you?"

"I will." I hugged my dad goodbye. He went on to the Monorail station to go home, and I pressed forward to the HOWERail station.

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The first of the HOWERail lines opened in 2095. The two terminals were located in Thousand Oaks, California, and Chiba, Japan (although it was advertised as a Los Angeles-Tokyo line). What used to take at least 12 hours by airplane now only took an hour-long train ride. It was hailed as a marvel of technology, and a way to connect the world together as it never had before, reducing carbon emissions in a process. This rail line quickly saw heavy use as a means of facilitating trade, tourism, and international collaboration across the Pacific. A few people even began using the line as their daily commute. Three other HOWERail lines soon began construction; by 2101, the Green Line between San

Francisco and Costa Oeste had already opened, and the Blue Line between Hong Kong and Brisbane was almost ready.

The base high-speed rail technology was nothing special; it was a pretty standard-for-the-later-21<sup>st</sup>-century maglev line. But a normal maglev train could still take several hours for a long-distance ride; the California High-Speed Rail, for example, still took about two hours to go from San Francisco to Los Angeles. HOWERail wasn't even the fastest high-speed rail system around by a long shot (that honor went to the "Oarfish Line", which ran beneath the East China Sea connecting Shanghai to Fukuoka). And unlike a normal maglev train, each individual HOWE train was reinforced to be airtight and withstand changes in pressure, electromagnetism, and negative energy. But that certainly wasn't helping it go any faster.

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The lines were always long at the Thousand Oaks station, even on a weekday. In order to reduce traffic, the entryway was divided by ticket class: Economy, Traveler, Business, First Class, and Freight. All ticket purchases were done in advance online, so I walked right up to the Traveler Class check-in line. It took about 20 minutes for the line to clear up enough for me to get to a check-in machine. A touchscreen on the machine showed a list of languages. I pressed the button for English, and it replaced this with a stylized map of the Red Line's path. The machine produced a cheerful, lilting voice, which was captioned on the screen:

"Good morning! Welcome to the HOWERail Red Line going to Tokyo. May I see your ticket?"

I pressed a few buttons on the swatch on my right wrist; it projected my ticket in holo form, and I held it up in front of the screen. The machine made a little noise, which sounded like a B-major chord on an electric piano.

"Thank you! To confirm the details:" The screen displayed the information picked up from my ticket. "Your name is Xara Quintana. You have a Traveler line ticket for 11:00 AM on June 4, 2101. Is that correct?"

I nodded to confirm.

"Please confirm your identity." The screen showed two figures – a hand and an eye. This meant either handprint or iris scanning. I pushed down my glasses and moved my right eye in front of the screen. Another little piano noise.

"Thank you! Do you have any luggage today!"

I nodded. "Yeah, I'd like to check two suitcases."

"Please drop them here! We will do the tagging for you." A panel below the screen opened backwards, revealing a small compartment. I lugged my first piece of luggage into the box, which lowered into the depths. A tiny suitcase elevator, so it seemed. The compartment came back up empty, and I put my other suitcase in. The panel closed after the luggage compartment descended a second time.

"Is that all?" it asked. I nodded to confirm. Another compartment appeared below the screen, which showed a diagram of the action the voice instructed: "Please place an arm into the compartment."

I held my left arm in the compartment. The machine wrapped a red bioplastic bracelet around my wrist, tying it off just before it became too tight.

"This bracelet is your key to get on and off the train. Your seat number is printed on it."

I pulled out my arm and looked at it. Seat 9-21X. The first number signified the train car, the second the row, and the third the seat.

"Thank you very much!" it concluded. "I hope your ride is out of this world!"

The screen showed a large green arrow pointing to the right, signaling me to continue into the main hall. A few holo-ads lined the walls of the station. I hate holo-ads, but they were far enough away that the crowd blocked most of them. I pressed a button on my swatch, and music began to play from the buds in my ears. "Trials of Life" by Operation Casino was the first song to play. I liked that one – it reminded me of my childhood.

At the front of the hall was security. Since HOWERail was technically international travel, I dealt with the passporting and visas online beforehand, but they still had to scan me and my backpack. I walked up to the counter, at which sat a woman who gestured me to walk into an open cylinder. I did so, and the cylinder closed behind me. A ring that looked like it was made of stainless steel first ascended the exterior of the cylinder, and then descended. The woman looked at a screen and nodded. Apparently, they found nothing suspicious. The front of the cylinder opened, and I exited. Behind the security counters was a series of turnstiles. By 2101 there were no actual stiles to turn, but the name stuck. I walked right through - the turnstile detected the bioplastic bracelet on my wrist and opened - and went forward to the boarding area.

Excluding the cabs, the train was 25 cars long, split by usage: 8 for Economy tickets, 6 for Traveler, 3 for Business, 2 for First Class, and 6 for Freight. Each car was color-coded, in alignment with the bracelets every rider received. The six Traveler cars that stood before me were striped red on top of a smooth chrome base. Each car stood two stories tall, and each level had a sleek, continuous row of black windows. A number was painted above the doors of each car. I boarded car #9. A sign pointed out that seats 1-45 were on the lower level, seats 45-90 were on the upper level. Seat 9-21X was on the right side of the train. It was a "booth" seat, with room for two people but no armrest separating the two. I had it all to myself – if I was gonna ride, might as well do so in comfort (and without anyone else having to sit next to me). A table sat in front of the two seats. I'd seen these in some cross-country rail lines before. Much more spacious than airplane trays.

I looked at my swatch. 3:43 PM. The train left precisely at 4:00. I flicked my right wrist, which brought out my swatch's screen, fitting right into my hand. I opened Discord, manual keyboard mode (some people had Keybrain implants, but I would rather avoid the possibility of my head being hacked), and messaged Hikari:

Just boarded the train! Should be about an hour from here 🚱

She wrote me back immediately:

Can't wait!!! I should be at the station at 9:00 right?





I let go of the screen, and it disappeared back into the swatch.

\* \* \*

I was born in San Diego in 2082. My parents divorced when I was nine; my father and I moved to Encino afterward. He got an administration job at the Thousand Oaks HOWERail terminal even before it opened, and now helped oversee the automated check-in and luggage handling systems. Ever since then, I've had the time and proximity to become familiar with the HOWERail system and its history.

I skipped the ninth grade and started attending UCLA when I was 17. At around that same time, I began chatting with someone I followed on 4um. Her name was Hikari; she was a student at the University of Tokyo studying stellar astronomy. We connected quickly: we were both girls majoring in space sciences; we liked next wave music; we had estranged mothers; we binged high-vintage TV shows on the weekends. And we quickly developed feelings for each other. Within two years, we had gone from mutuals to lovers. The only problem was distance: I was in California, and she was in Japan. No amount of holochats could compare to being together in person. And although HOWERail stations were tantalizingly close to both of us, ticket prices had become expensive in recent years (they started at \$1,000 in 2125; now an economy ticket could put you back \$5,000). Neither of us could afford to meet yet.

That was about to change. I took my last final of the semester on Friday, May 16<sup>th</sup>. For the previous few years, my father would take the entire year's worth of vacation time in June or July, and we would spend my summer break traveling the world. France, Chile, Thailand, Canada. Every time we had used airplanes or conventional rail. Although my dad worked for HOWERail, I had never actually ridden one and he only did so once (for a business trip in 2097). For this year, I had a different plan. The money we would normally spend on traveling, we would put towards two Traveler tickets (which allow you to bring more luggage) for the Red Line. I would meet Hikari at the Ichihara station, spend the better part of two months at her place, and then come back in time for the fall semester. It took some convincing to get my dad onboard with the plan, but we agreed that next year we'd do something together as normal.

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As I slouched down into my seat and waited for the train to take off, a hologram was projected from the back of the seat in front of me. A soft voice began to play over the car's PA:

"Welcome to the Hyperspeed Other-World Express." Each line was followed by translations in Japanese, Spanish, and Mandarin: "ハイパースピードアザーワールドエクスプレスへようこそ. Bienvenidos al Hyperspeed Other-World Express. 欢迎来到超速异世界快车."

"The train will be departing shortly. But before we take off, we would like to take a few minutes to inform you about your ride. We hope this will be more interesting than the average pre-flight safety video.

"The Hyperspeed Other-World Express connects Tokyo and Los Angeles by passing through a portal to Planet Tane, the fourth planet in the Kepler-38 star system. Tane is a habitable rocky planet, teeming with life currently under study by exobiologists. Tane has an atmospheric pressure and composition roughly comparable to earth, making it ideal for interplanetary exploration and construction.

"As you are watching this video, the train is being sealed from the outside. The exterior seal can withstand changes in pressure and atmospheric concentration. However, the transition to Tane may affect how you feel inside the train. Possible side effects of HOWE travel may include: nausea; vertigo; vomiting; headaches; and in extreme cases, fast-acting dysentery. If you feel sick in any way, please press the orange button in front of your seat, and an attendant will see to you shortly.

"There is a slight possibility of extreme winds on Tane. These winds may cause the train to lean slightly to one side. If the train leans, do not panic. HOWE trains are designed to bend without derailing. The maglev system will keep the train upright.

"Do not attempt to open the doors or break the windows during the ride. Doing so may break the atmospheric seal on the exterior of the train. Although the atmosphere of Tane is not immediately lethal, long-term exposure may have negative health effects. Please, stay on the train until we have reached the Tokyo Station.

"You are on a Traveler car. Food and drink are allowed on Traveler cars. If you want to order a snack or beverage, press the green button on the seat in front of you to summon an attendant. The restroom is at the back of the car. We humbly request that you remain seated as much as possible. If you would like to know more about your ride, please take the information tablet from the compartment in front of your seat.

"Thank you again for riding with HOWERail. Linking worlds together, and HOWE!"

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The first manmade portal – a terminus of a wormhole – was successfully opened in 2025 at the Museo de Metafísica in Costa Oeste. Although it evaporated after a few seconds, it served as a proof-of-concept upon which portal researchers and engineers continued to develop the technology. Eventually a relatively easy method for opening portals was developed, taking advantage of squeezed light to produce sufficient amounts of negative energy to create a wormhole. Portal opening was strictly regulated by international bodies, naturally, and the ability to open a portal was so expensive and difficult to achieve that mostly research facilities did so. But by the end of the 21<sup>st</sup> century, the existence of manmade wormholes had become a fact of life.

In 2071, Henderson Spacetime Institute scientists opened up a portal to Tane, which is one of two planets within Kepler-38's habitable zone. The Tane portal was estimated to persist for about four months based on negative energy input. A wormhole's strength decays over time as the negative energy that forms it decays; eventually, all portals close. But that initial Tane portal is still open today. HSI scientists narrowed the cause down to two likely possibilities. Either the great distance in spacetime sustained the wormhole's strength and stability, or something about the Kepler-38 system fed negative energy into the wormhole. Either way, it appeared portals to Tane would persist for anomalously long.

Thus came the Hyperspeed Other World Express Rail System – or HOWERail for short. Formulated and managed by a group calling itself the Interspatial Long-Distance Rail Authority, the Quixotic aim of the HOWERail initiative was to speed up international rail travel with the use of portals. Since these portals would need to stay open for years, the idea was to open two separate portals to Tane and run the rail line between the two, taking advantage of Tane's anomalous portal persistence and avoiding any possible instability of having two long-term termini of a wormhole on Earth. After extensive negotiations with the United Nations Cosmic Exploration Authority, ILDRA secured permission to go forward with development on Tane. Portal opening was achieved with the help of HSI; construction of the line itself was subcontracted to C-Moon Enterprises and Kongjian Railway Group.

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I leaned against the window. The train began movement, slowly beginning to glide on the track from its standstill. It made no noise as it smoothly picked up speed. The walls of the station gave way to the developments of Thousand Oaks. The city was mostly developed to the right, but there were still some green spaces over to the left. Looking ahead, the yellow-white glow of the portal began to make itself ever so slightly apparent.

The train jolted on the track as my car passed onto another planet.

And just like that, southern California gave way to an alien prairie. The ground outside was covered by things that resembled ferns, albeit instead of green they were colored light blue. Further in the distance lay a forest of taller treelike things, all various shades of blue and green. The sky above was tinted yellow-green, but boasted familiar earthlike clouds. No creatures were visible on the ground – or perhaps the train was moving too fast for me to see anything – but I could notice a small flock of organisms flying in the distance. Each one appeared bluish-black, with four wings and a long tail. They were large enough to easily be visible from the train. And they serenely glided through the air like massive kites, with only an occasional flap of all four wings at once.

It was a beautiful sight.

The train silently and gracefully shot through the prairie like a bullet, overtaking the flying creatures. Visible out the windows on the other side, a series of mountains slowly rolled by in the distance. Several rivers trickled down from these mountains into the prairie; the water in these rivers appeared just the same as it did on earth. These rivers passed underneath the track; I could see them zooming on by out the window. The blue ferns grew more densely closer to the water, and particularly around a large lake that the train passed by. The forest stayed further in the distance, although a few individual trees could be seen next to the lake.

And then one of those extreme winds the safety presentation warned about hit. The whole train suddenly tilted several degrees to the left. It almost knocked me out of my seat. I could hear some glass breaking elsewhere in the car. After about two minutes of riding tilted like that, the wind apparently died down and the train gently leaned back into a vertical position. They weren't lying about that self-balancing tech. I went back to marveling at the alien ecosystem outside. More of the black flying creatures could be seen, circling over a certain spot too dense with those blue ferns for me to see anything. This place was like nothing I'd ever seen — what am I saying, of course it wasn't anything I'd ever seen — and yet it felt deeply familiar. It felt like a surreal warping of an Earth ecosystem. Though I

guess life on all planets would share at least some similarities, and so ecosystems could probably come off pretty similarly. The next wave music I was listening to only amplified the feeling, pumping little bits of musical nostalgia into the awe I felt.

Soon the train passed by a six-story, Y-shaped structure standing in the middle of the vast prairie. That must have been the Tane Exobiology Outpost. My intro astronomy professor had mentioned it in eir exobiology lecture last year. After life was discovered on Tane, the Outpost was constructed in 2084 as an extraterrestrial hub for research on the planet. It was called the Exobiology Outpost, but in practice it was a base for all sorts of biological, geological, and climatological research on the planet. Rumor had it that the first portal opened to Tane is located somewhere inside.

I figured I might as well take a look at the info tablet the safety video thing talked about. There was a compartment at the back of the seat in front of me. Opening it revealed the information tablet tucked neatly inside. After the obligatory language selection screen, there were four possible options: History of HOWERail; Portal Physics; Kepler-38 System; Field Guide to Tane. The field guide seemed interesting:

#### FIELD GUIDE TO TANE

Here is a selection of Tanean organisms that exobiologists have identified and studied. You may see these species out the window of your ride.

I swiped through the different species until I found the black flying organisms.

### **NIGHTWING**

The nightwing is a large soaring organism, and the largest flying organism currently known on Tane. It bears four wings, which flap synchronously in flight. It is more cumbersome on the ground, walking with eight short limbs located on the torso.

The nightwing is an aerial scavenger, using sight to detect carrion in open Tanean habitats. It will use the large hooked structure on its head to tear open carcasses. It feeds with three tonguelike structures covered with teeth, which it uses to rasp flesh.

Nightwings may be found solitary or in flocks of 3-7 individuals. The vane at the end of the tail is believed to be an indicator of sexual maturity. Preliminary phylogenetic analysis suggests Nightwings are closely related to Greenbats and Song Sprites.

SIZE: Large individuals can reach 14 meters (45 feet) in wingspan.

DIET: Primarily carrion. May also prey upon small terrestrial and aerial organisms.

PREDATORS: None known.

HABITAT: Have been observed in all open Tanean habitats yet known.

LIFE CYCLE: Reproduction occurs in large congregations near bodies of water. Appears to be hermaphroditic. Juveniles apparently never observed. Can live at least 40 years.

Accompanying this brief information was a 3D illustration of one of these nightwings. It lined up with what I saw out the window: bluish-black body, four wings, a long tail with a vane at the end, and a hooked snout. I was a little disappointed that the information was so brief, but since these species had probably only been recently discovered and described, I guess that made sense.

I leafed through the field guide a bit. The next species was the Greenbat, which looked like a smaller, green version of the Nightwing. The Greenbat was apparently a hawk-like predator, which sometimes hunted in groups to take down larger herbivores. The Song Sprites looked like smaller versions of those still, and were named for a musical sound they produced. Herbivores in the prairie ecosystem included three species of antelope-like creatures called Springfoots and a larger armored creature called the Tarkus. The "plants" were also included in the field guide; it turns out they were more like corals, being sedentary adult forms of insect-like organisms. Since the limpid green sky filtered out wavelengths of light that plants on earth use for photosynthesis, the Tanean "flora" prioritized red and even infrared light wavelengths, reflecting green and blue. Tealferns, Tane pine, and scimitar-trees were some of the species I had seen out the window. The Song Sprites apparently had some form of symbiotic relationship with both the Springfoots and the "plants", which was currently under rigorous study.

Looking back at the Tanean wilderness, the prairie had just about ended. The forest in the distance had edged closer and closer over the past several miles, until it reached right up where the tracks were. The train plunged into the trees, which looked like they stood over 100 feet tall. Little light came into the canopy, and the few clearings zoomed by the window. I turned back to the tablet, went back to the main screen and selected the Kepler-38 System option.

#### THE KEPLER-38 SYSTEM

Kepler-38 is a binary star system in the constellation Lyra. Each of the major objects in the Kepler-38 system is named for a Maori deity.

**STARS** 

**Tamanuitera** 

Kaitangata

**PLANETS** 

Maui

Whaitiri

Ruaumoko

Tangaroa

Tane

**Tawhirimatea** 

Hine

Tamanuitera was the larger star in the system. It looked like our sun, Sol. The other, Kaitangata, was a smaller red dwarf. I skimmed through info on each of the planets:

- Maui was a small rocky planet that exclusively circled Tamanuitera
- Whaitiri was a "Hot Neptune", a smallish gas giant close to the two stars

- Ruaumoko was a tectonically active Earth-sized rocky planet outside the system's habitable zone
- Tangaroa was an ocean planet on the inner portion of the habitable zone
- Tane was about 0.8 times the size of Earth, with lower gravity
- Tawhirimatea was another gas giant, approximately the size of Saturn
- Hine was a small planet on the outer edge of the system. Not much was yet known about it

The train popped out of the forest, back into another tealfern prairie. I checked my swatch: 4:47 PM. The train would pass through the other portal to Earth soon. I looked out the window again, to take in as much as Tane as I could before going back to my own planet. The train had passed by a large herd of those Springfoots, which now were galloping away from the track. Each one bounced gracefully across the field of tealferns, springing back into the air as rapidly as each limb landed. The comparatively lower gravity of the planet was undoubtedly helping with this. A field of blue and black beasts bounding like bouncy balls across the prairie.

But something in the distant sky caught my attention. A large, shiny object, floating high above the ground. I squinted to try and get a better look. It appeared shaped like a cigar of sorts, with two large recurved wings pointing to each side. At the front end was a large, black region that appeared to reflect the environment around it, as if it were made of a particularly shiny obsidian. The rest of the thing looked like it was made of metal, almost appearing like a shiny chrome gray.

It was a vehicle. And it can't have been human-built.

The craft in the sky suddenly jolted into movement, starting straight from a standstill in the sky. I watched the craft as it banked to the right and zoomed over a set of hills in the distance, eventually disappearing out of sight. Was that an alien ship? Nobody had ever reported anything about alien civilizations on Tane. Alien life, perhaps, but not anything comparable to humans in intelligence. I was so offput and confused by the thing that I didn't notice the glow of the other portal coming up.

The train shot right through to Earth again. My eyes needed a moment to adjust to the bright morning daylight and the urbanized surroundings of Chiba. I looked at my swatch. 8:58 AM, June 5<sup>th</sup> – it had updated to JST. As soon as it arrived back on Earth, the train began to slow down, just as smoothly as it had taken off. It soon pulled into the Chiba station. I departed the train and passed forward, through another set of turnstiles to the check-out/baggage claim hall. The walls were surrounded with screens similar to the check-in terminal at Thousand Oaks. I walked up to one.

"Please place your bracelet into the compartment," the screen said. A compartment opened up just like at Thousand Oaks. I placed my left arm inside. The bioplastic bracelet was loosened and pulled off of my arm. My two suitcases were soon pushed out of the front of the wall – the reverse of what happened at Thousand Oaks.

"Is this your correct luggage?"

I nodded to confirm.

"Thank you! Welcome to Japan!" I grabbed my suitcases and continued forward. There were three ways to go: public transit to the left, cabs and rideshares to the front, and the street was to the right. I turned right, where a scattered crowd of people were waiting in front of a paved road. It didn't take long to spot Hikari among them, what with the streaks of red and cyan in her hair.

"Oh my god. Xara!" She abandoned whatever she was writing on her swatch to wave me over. I dropped both of my suitcases to hug her.

"Holy shit it's so great to finally see you in person!" I said. She lightly giggled in response. We stayed embracing and grinning like idiots for about half a minute. You just couldn't replicate this with a holochat.

"...okay can we stop now? There are people here," she finally said, and we let go of the hug. "So what do you want to do now?" she asked.

"I dunno. Your apartment is in Kita, right?"

"Yes! We should drop your stuff off first, and then head out to town later, if you want?"

"Good plan. I... should probably go get my stuff." As she flicked out her swatch, I turned back towards my suitcases, which lay flat on the ground where I dropped them, about 40 feet away.

"Autocab?" she asked.

"Sure!" As I got the suitcases, Hikari summoned an autocab. It arrived almost immediately; turns out there were several parked in the terminal's parking lot, waiting for passengers departing HOWERail who wanted rides. We each took a suitcase and the other's hand, and walked over to the pickup site.

The next couple weeks were wonderful. Since neither of us had summer plans, we were free to do things together every day, from breakfast out to museum visits to just wandering the streets together. She was even more of a delight to be with in person, and she frequently told me the feeling was mutual. It was worth the amount of time we spent with the Pacific between us.

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I woke up abnormally early on June 22nd. I turned over to Hikari; she was still asleep. I didn't feel like I'd go back to sleep anytime soon, so I pulled out my swatch and checked 4um.

Oh dear.

"Hikari?" I shook her to wake her up. "Babe. Wake up. Something important happened."

"Mmmm... 何ですか?" she mumbled.

"I think... alien civilizations might be confirmed."

"You can't be serious, Xara..."

"No, I'm serious, have a look at this!" I detached my swatch's screen and handed it to her. Her eyes widened into full alertness as she read the article I pulled up:

## KSN News – Possible Alien Missile Impact Sites Reported on Tane

THOUSAND OAKS, CALIFORNIA – Management of the Interspatial Long-Distance Rail Authority has reported four crater-like structures near the HOWERail Red Line track on Planet Tane. Since these structures were first reported at 7:00 AM PDT on June 10<sup>th</sup>, they have been examined by ILDRA workers, exobiologists, and forensic scientists.

The cratering site is located less than a mile from the Tane Exobiology Outpost, the hub for exobiological research on the planet. Residual traces of lithium and chlorine trifluoride have been detected in each crater. Interdisciplinary consensus among experts is that these structures were formed by the impact of military warheads.

"They look for all the world like missile impact craters," said ILDRA spokesman Bartholomew Mantis, "and that's how we're going to interpret them."

The governments of the United States and Japan have decided to interpret the impacts as warning strikes from an alien military force, according to U.S. Press Secretary Siobhan Langston. The belligerent species is unknown; no sapient species or any other sign of civilization has yet been identified on Tane.

"This is confirmation that intelligent alien life not only exists," Langston said Friday morning, "but that they have military capabilities and agendas. The last thing that we want is an interplanetary war. We hope that the species that made the strike reveals their identity, and that a peaceful resolution can be achieved."

The event has not affected the HOWERail track, and the Red Line will begin operating as normal starting Saturday, according to Mantis.

"That explains what the thing I saw in the Tanean sky was," I said.

Just as Hikari finished the article, something popped up on the screen.

"Xara? Holo the screen, please." Hikari's voice carried an odd blend of fascination, confusion, awe, and worry – I could tell because that was the same cocktail of emotions I was feeling.

I pressed a button on my swatch, and it projected the screen outward as a hologram. A popup window had appeared on the news site. ALIEN RADIO TRANSMISSION RECEIVED – WATCH LIVE. Hikari pressed it, and we leaned in to watch. A man, labeled Prof. Kazuo Otonashi, University of Tokyo/SETI Institute, was talking when we joined the stream:

"-received at the Tane Exobiology Outpost, shortly before the impact craters near the HOWERail line were noticed."

"I know that guy!" Hikari interjected, pointing at the screen. "I've taken classes with him."

"The transmission contained an encoded video signal, which has been deciphered and reviewed by a multinational SETI Institute panel. It appears to be a message from the civilization that created the impact sites. I... don't think there's any way I could properly introduce it, so just... play the clip:"

The live feed cut at first to a noisy static signal, but eventually a picture began to fade in. The video showed a white screen, in front of which stood a... an alien. It was strikingly green, and looked like it walked on two muscular arms. It had an iridescent lime green head with two purple areas that looked like eyes and a long, decurved black beak. At the end of its relatively short torso were four more arms, with which it was manipulating a console of sorts that stood before it. As the alien manipulated the console, images formed on the screen behind it. First, a diagram of a stellar system. Two stars, seven planets: it looked like Kepler-38. The alien highlighted one of the planets in the system. Next, a few dots, one of which was red. These dots were then circled by a green outline. The alien then erased the screen

and drew a diagram. It first drew two circles on the screen, and then a long line connecting the two. Next to the line, it drew a thick Y. A bit farther away, it drew two more sets of connected circles.

HOWERail lines and the Tane Exobiology Outpost.

The illustrator then frenziedly scribbled over the map it just drew and cleared the screen. Looking directly at the camera, it drew one final illustration: two gray circles and two green circles. It drew a line from one of the gray circles to one of the green ones. And then what looked like a missile next to the green circle. And then it scribbled out that gray circle. Then, in red, it circled the remaining two circles. The feed cut out right then, and the video returned to Otonashi.

"We're confident this is a message from the species that sent the warning shots near the HOWERail track," he said. "We have elected to tentatively call this species the Colibri Aliens – or Colibri for short. And we believe we have deciphered their message:"

Each part of the Colibri's drawing showed up on the screen in front of him. "The first diagram is of the Kepler-38 system, with planet Tane highlighted," Otonashi continued. "The second diagram is a stellar map; we have identified it as a portion of the constellation Lyra. We think the circled green area, which includes Kepler-38, may be the Colibri's claimed interstellar territory. The third diagram is a representation of human constructs on Tane: these are the HOWERail lines, and this is the Tane Exobiology Outpost. We're interpreting the message of the fourth diagram as saying that if humans and Colibri leave each other alone, there will be peace. But if we interfere with the Colibri's affairs, they will attack. Taken together, the Colibri Aliens appear to be telling us that they do not approve of the construction on Tane and, if we go too far, may retaliate, violently if necessary.

"My fellow Earthlings, we've found intelligent aliens, and they are not pleased."

\* \* \*

The SETI Institute quickly formulated a response plan. Since the Colibri could clearly communicate through imagery, they planned to continue using diagrams. The message that we humans wanted to send was one of peace and non-confrontation: we would stay on Tane, as explorers and travelers, and not interfere with the Colibri's other affairs or cause harm to the system. In return, the Colibri would not attack us. SETI was hopeful that eventually humans and Colibri could find an easier method of communication and become allies, but stuff like this has to start small. A volunteer crew of messengers was soon assembled, and sent to the Tane Exobiology Outpost.

July 3<sup>rd</sup>. Hikari and I were watching the live feed from a café in Shinjuku. Four of these messengers were waiting outside the outpost in airtight suits. The visors of their helmets were specifically clear, so that the Colibri could see clearly what humans look like. A HOWERail train zoomed by on the nearby track. Assembled next to them was a portable screen, on which the prepared diagrams would be shown.

"So what do you think is gonna happen?" I asked her.

"I hope it goes well," she said. "I mean knowing humanity, there's like a 50/50 chance a war is gonna break out after this, but... might as well hope for the best."

"Wanna bet?"

"Yeah sure! If this goes well and we make peace with the aliens... then you have to take me to the aquarium tomorrow!"

"Alright. And if it goes poorly..." I tried to think of what I wanted out of this, because in that scenario we'd probably all be screwed. "...then you have to treat me to something. I don't know what right now, but I'll think of something."

"Deal?"

"Deal." We shook hands and turned back to the holoscreen in the café.

A Colibrian craft eventually arrived at the scene. It was shaped like a smaller and sleeker version of a space shuttle, and shared the same shiny chrome gray exterior of the one I saw on the ride over. Using various boosters on its surface to position itself, the craft landed in front of the messengers, next to the HOWERail track. A door on the side opened and gently touched the ground. Three Colibri, each donning a dark purple cloak, descended down this new ramp and approached the volunteers. Each individual Colibri stood over six feet tall, with their green heads shimmered with iridescence in the Tanean sunslight. One of the Colibri – the apparent leader of the three – produced a glasslike panel from within its cloak, which had a drawing on it. Four crudely-drawn astronauts standing on a planet. Next to it, three short parallel lines surrounded by a circle.

The human messengers turned on the projector and showed the first slide. It was a diagram of the Kepler-38 system, with Tane denoted in gray. The next slide showed humans on Tane, as well as a HOWERail track. Then back to the Kepler-38 system. While Tane was still circled gray, the other planets were now colored green. A drawing of a Colibri was located next to each planet. The next slide was a duplication of the Colibri's stellar map. This time, instead of the entire region of space being circled green, one dot – Kepler-38 – was shaded both green and gray. The last diagram was a replication of the Colibri's last slide, with two separate gray and green circles.

The leader of the three Colibri cocked its head at what it had just seen. The right-hand Colibri turned to the leader and vocalized. The leader erased what was drawn on the panel. With two hands holding the panel and two hands holding pens, it drew yet another picture. Two crudely-drawn humans and the HOWERail track; next to them, a Colibri standing over them, watching. It showed the picture to the humans for a bit, then drew a missile on the panel, and just as soon afterward scribbled it out.

The human messengers turned to each other. The livestream allowed us to hear what they said on their comms:

"Do you think they're in agreement?"

"I think so. Cause they wouldn't have crossed out the weapon if they weren't, right?"

"Yeah..."

"I'm gonna shake their hand."

"What?"

"Orders are not to physically interact with them!"

"Give me this moment, Steve! We're already making history with this, why not make a little more?"

After waiting a few seconds for her confidence to fully develop, that messenger slowly walked forward, and in turn the head Colibri ambassador also slowly walked forward. The messenger held out her hand to shake. The ambassador looked at this outstretched extremity in confusion, before pushing its torso forward through its cloak, one of its arms outstretched. The messenger grabbed the extended Colibri hand, and in perhaps the most awkward possible first contact ever, moved it up and down.

On Earth, the entire café exploded in an uproar of applause, as if a local football team just scored. I pumped my fist in relief.

"YES!" Hikari was a little more outwardly enthusiastic about the result than I was. "No space war for now!"

"And hopefully not ever," I continued, taking her hand. "Let's just hope they don't fuck this up."

The ensuing long silence that followed, in which we absorbed and processed the ramifications of the official first contact with intelligent aliens, was broken by Hikari. "And now you owe me an aquarium trip."

"... goddammit." We collapsed into laughter and kissed.

Back on the live feed, the Colibri muttered a few words among themselves, and then boarded back onto their ship. It took off with a digital-sounding grumble, and disappeared into the distant Tanean sky.

\* \* \*

I went back to California on August 8<sup>th</sup>, after two of the happiest and most interesting months of my life. Both of us had fall semesters impending, and also Hikari's roommate would be coming back from summer with their family two days later. We'd agreed to meet again next summer – and that time, she'd get a one-way ticket to come back to California with me. This upcoming year was her last year at the University of Tokyo. After she graduated, the student housing discount her apartment complex offers would run out, and unless she scored a prestigious Portal Research Institute gig, it'd be too expensive for her to stay in the area. One of us – I forgot if it was her or me – brought up the possibility of her moving into my place. I could probably pull some strings through my astronomy professors to get her considered for an internship at the Griffith Observatory, so she'd have something to do in Los Angeles. I ran this idea by my dad and he said he'd be happy to house her, if it made me happy. Caring for one space-obsessed girl for 19 years wasn't too bad, he could handle another, he joked.

The HOWERail ride back was just as enchanting as the first. The Tanean forests and tealfern prairies were just as much of a surreal delight the second time around. It was nighttime during my second trip, and the warmly-lit track cast a different mood on the scene – more mysterious, but more calming. There was only one prominent difference: several vehicles were parked along the length of the track. From these, Colibri sentries watched over the track, the Exobiology Outpost, and the portals. That was part of the agreement: the Colibri had the right to watch over what humans were doing on Tane. Just to make sure that they weren't going to do anything too harmful.

I arrived back at the Thousand Oaks terminal at 10:00 PM Pacific time. The exit was, naturally, through the gift shop. Even in the future, there were still many corny shirts and souvenirs. I had already picked up a cool snowglobe in Tokyo for my dad, so I didn't need to get another one here. But one thing caught my eye: collectible holotickets. Using the same non-fungible technology that produced the holotickets I

used to check in at the station, they made collectible variants as proof of your HOWERail ride. These could be stored digitally and displayed in holo form. "I Survived Planet Tane – ask me HOWE!" they said. Cheesy, but they were only \$30 each. I bought one and loaded it onto my swatch. My dad was waiting outside, with his car this time so we could pick up some donuts from Randy's on the way home. I messaged Hikari while waiting in the drive-through:

Made it back!!! Getting donuts rn

Yay!!!

Is it bad that I already kind of miss you?



Honestly I'm super tired right now so after this I'm gonna sleep

Holochat tomorrow?

For sure!

Ok love you!

