

# HEAVEN'S RIVER

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## **The Bobiverse Series**

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*All These Worlds*

*Heaven's River*

*Not Till We Are Lost*

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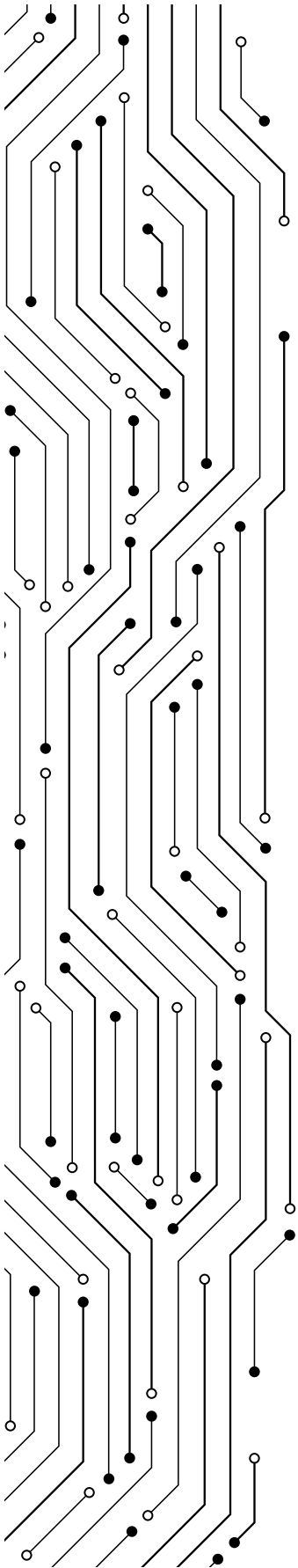
*The Singularity Trap*

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*Feedback*

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# HEAVEN'S RIVER

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- Bobiverse: Book 4 -

**DENNIS E. TAYLOR**

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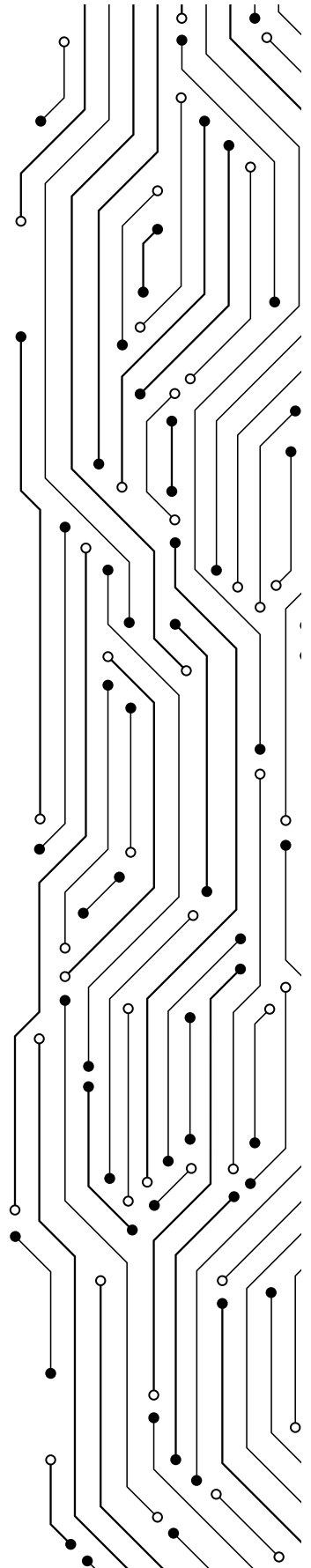
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*First, and always, I want to dedicate this book to my wife,  
Blaihin, and my daughter, Tina.*



# PART 1

## THE SEARCH FOR BENDER





## 1. Frenemies

---

Jacques  
November 2331  
New Pav

The planet hung below, all blues and greens and twinkling lights of nascent cities. New Pav, we called it. The Pav's name for their new home planet was slightly more poetic, but would still sound like a bunch of spitting and hissing to a human ear.

The population had boomed in the seventy years or so since they'd been resettled here, and they now boasted cities on several continents. It looked like the species would survive.

Whether they'd still be talking to us or not was another matter.

I received a signal from the cargo drone containing my manny, informing me that it had landed. With a mental sigh, I prepared to leave VR for what would probably be an uncomfortable meeting with the Pav representative.

I connected to the manny—a remotely operated android—over the SCUT channel and transferred my personal POV into it. As internal systems powered up, I took a mil to glance around the now-familiar cargo hold, then extracted myself from the support rack. The cargo doors opened automatically to reveal my usual Pav military escort, rifles at the ready, probably with safeties off. A gaggle of six-foot-tall meerkats, without the cute. I hadn't visited in a couple of decades, mostly because the last time had been what you might call *tense*.

Just to see how they'd react, I smiled, careful not to show my teeth, and gave them the Vulcan salute. The squad leader showed me his

teeth—not a gesture of friendship from a Pav—and returned the salute with three fewer fingers.

Apparently, he had studied human culture.

I walked up to the group and gave them a proper Pav smile-equivalent. “Hey, guys, what’s shaking?”

I needn’t have bothered. The squad leader responded with a low snarl and motioned with his weapon toward the nearby tent. They’d set up a tent. It would seem I didn’t even rate an indoor meeting. Maybe it was actually a good sign . . . nope, couldn’t make that work.

I entered the enclosure and eyed the Pav sitting at the desk. He was the second planetary administrator since Hazjiar, and he didn’t look any friendlier than his immediate predecessor. I missed Hazjiar. She at least had understood the realities of the situation the Pav found themselves in. Somehow, since her passing, the part about the Others having rendered the original Pav home world unlivable had been, um, de-emphasized. The prevailing attitude now seemed to be that we’d done it and lied about it. For no reason that anyone could come up with.

“My name is Da Azzma Hizz,” he said, gesturing to a chair. “I represent all Pav. Do you represent the humans?”

“I am Jacques Johansson. I represent the humans, for purposes of this transaction.” It was a Pav formality, of sorts. Everyone identified themselves and their purpose. And it lowered the tension a bit as we settled into the routine.

Azzma pushed some papers forward. “We have available the agreed-to tonnages of elements according to the schedule. This represents payment in full for the two human-owned autofactories in our system. Do you concur?”

I glanced over the papers. Everything seemed to be in order. We’d offered to just give the autofactories to the Pav, but they’d refused. I couldn’t be sure if it was an aversion to what could be seen as charity, or if they didn’t want to be in our debt, even morally. I suspected the latter. “I concur. The *Bellerophon* will be here within the year. They will collect the ingots and deliver the autofactories to you from orbit.”

We stared at each other across the desk. There would be no pleasantries exchanged today. Then Azzma finally spoke. “I will admit this

agreement is inconsistent with the prevailing conspiracy theory about the Bobs. It would have made more sense for you to keep us planet-bound and ignorant.”

“Hopefully this will help to ease the tension between our peoples,” I replied.

“A little, I think.” Azzma gave me a tight-lipped smile-equivalent. “I have read the diaries of Hazjiar, *Jock*. She did not feel that you were the enemy. But it is a minority viewpoint these days.”

I sighed and examined my hands for a moment. “Azzma, you’ll be able to build interstellar vessels with the autofactories. We’ve given you the construction programs as part of the deal. It’s just”—I looked up at him—“you’ll be going out into a galactic neighborhood that’s full of humans, and getting more so. Too much uncontrolled antagonism could be counterproductive, you know?”

He stared back at me for a moment. “I understand, *Jock*. We are outnumbered and outgunned, if it comes to that. We are not, uh . . .” Azzma gazed upward for a moment, then smiled. “. . . Klingons, is that the right human term? We understand discretion.”

I smiled back, just as one of my honor guard muttered, “And patience.”

Azzma gave them a hard glare past my shoulder.

“We have made great strides in restoring the Pav home world,” I said, trying to bring things back to an even keel. “About a third of the planet is actively growing things once again. Are you sure you don’t want—?”

Azzma shook his head. “In our own time, *Jock*, we will visit our ancestral home. I don’t doubt the skills of the Bobs, but *this* is the home world of every living Pav. Old Pav is a monument to what no longer is.”

“I understand.” I nodded and stood up. “It will be kept aside for you, for whenever you decide.” I turned to my escort. “Well, boys, shall we?”

The squad leader showed me his teeth—again—and stepped aside to make room for my departure. I turned back to Azzma for a moment and we exchanged Pav head bobs. I found myself missing Hazjiar and her version of the Vulcan salute.

Ephemerals. It was so hard not to think it.

« \* »

There was a clunk as my cargo drone docked with the comms station. In keeping with the increased use of mannies for local physical presence, stations were now being constructed with a living area of sorts, and docking facilities. I stepped out of the drone's hold and walked over to the manny pod. For humanoid androids, the pods had pretty much replaced the older and bulkier storage racks. As the pod cover closed over me, umbilicals and feeder tubes attached to the manny. I powered down and transferred my POV to my personal VR.

My latest VR environment, a ski chalet, was already boring me. It seemed I couldn't stay interested for long in any one theme, and I couldn't get up the energy to work on something grand. I sighed and reset the VR to the default library theme.

On a whim, I sent a text to Ferb. He replied immediately, and I popped over to the Pav Reclamation Project administration center. The center was hosted by Bill's moot VR system, and had been the nexus for our efforts to rebuild the Pav home world for almost a hundred years now.

I examined the empty room, a sense of nostalgia filling me. We'd spent so many years working on the problem of rebooting the Pav ecology from nothing more than some plant and animal samples, taken in a huge rush as the Others' armada bore down on the planet. It was ironic: Now that we were finally making some significant progress, the Pav simply didn't seem to care.

Ferb popped in as I stood, ruminating. "Hey, bud," he said. "Long time."

"Yeah. I, uh . . ." I waved a hand at the room. "Ghosts. It feels like we just abandoned the Pav."

"Aw, don't get melodramatic, Jacques. It's all pretty much automated these days. Takes maybe a couple of hours a month to make sure everything's on track."

"Uh-huh. And that's why, right? Where's Phineas these days, Ferb?"

He glared at me. "Why'd you have to bring that up?"

"Because it's the real reason why this place is deserted. Heard from Phineas?"

"Nothing live." Ferb looked down. "He isn't bothering to build

interstellar relays, and he's way the hell out of SCUT range now. I get a heavily Dopplered radio transmission every month or so, though."

"Heading for the Large Magellanic Cloud. He'll be a while."

"What's your point, Jacques?"

"You, me, Phineas, Claude, we're all haunted by what happened. Ghosts. Billions of Pav—"

"We did everything we could!"

I sighed. "I know, I know. But there's still an emotional toll. Especially since the Pav haven't exactly embraced us for our efforts. We've all, every one of us who were involved, gone on to other things as far removed from this as possible. Phineas, well . . ." I snorted. "He's taken *far* a bit too far, maybe."

Ferb nodded, the slightest trace of a smile showing for only an instant.

I cocked my head as I took a good look at him. "What're you doing with yourself these days?"

"LARPing. Well, designing campaigns more than participating." Now Ferb finally did smile. "The Gamers—you know, Gandalf and his group—do live-action D&D campaigns in virt. But they kind of have a problem where they all want to play and no one wants to DM, so they're happy enough for the help. And I, uh . . ."

"What?"

"I have to admit I get a little uncomfortable around them sometimes. Not that they're dangerous; it's just they're like strangers, but strangers who all look like me, you know? Some of them are out-and-out jerks."

"Yeah. Replicative drift. It's a thing, as Bill says. So why do you work with them?"

He shrugged. "Something to do. Keeps me busy."

"You can't find anything better to do with your time?"

"Thanks for that, *Mom*." Ferb hesitated. "Actually, I'm kind of working on something. Not quite ready yet. Don't noise it around, okay?"

He had my interest now. "Okay."

"I'm building a huge cargo vessel for myself, and I'm filling it with SCUT relays, stripped down to the essentials to keep their size down. When I'm ready, I'm going to launch straight up toward galactic north.

I'll drop off relays as I go. I want to get at least a thousand light-years above the galactic plane. Then I'll be able to see what's on the other side of the galaxy."

"You know you could just put an AMI in the vessel, give it some marching orders, and stay home."

"Maybe. Not the same, though. Or maybe you're right about Phineas. And all of us. Maybe we *are* trying to run away." Ferb gave me a look that I would have to describe as *pleading*, as if he was asking for forgiveness or something. "Gotta go, Jacques. We'll talk again sometime."

For some reason, I doubted that would happen. And just like that, I was alone again in the PRP center. Alone with my ghosts.

## 2. Working the Options

---

Bob  
January 2298  
Above Eden

**S**pace is big.

I know that sounds like a *duh* statement, and Douglas Adams already made it anyway, but when you're looking for a single spaceship over literally interstellar distances, space gets right in your face with its bigness.

Bender had been missing now for more than a hundred years. Despite Bill transmitting the SCUT plans for FTL communication to every system that Bender could possibly have reached, despite searches along his probable path by Victor and later by his clone-mates Marvin and Luke, we hadn't found hide nor hair of Bender. Or bolt or deck plate, what with him actually being a sentient spaceship and all.

I should explain that, I guess. Bender is a computer who thinks he's one Robert Johansson, an engineer slash nerd who died in the early 21st century. As are all the Bobs, including me. I was the first replicant, launched from Earth in 2133. Every single Bob is my descendent, because that's what Von Neumann probes do. We make copies. We're up to thousands of Bobs now, spread over an almost one-hundred-light-year radius centered around the Sol System.

Bender was from my second batch of clones, constructed in Delta Eridani. He took off in the direction of Gamma Leporis A, and he's never been heard from again. Lots of Bobs have died over the years in battles, and some without the benefit of a backup. But Bender just disappeared without a trace and without a reason.

I knew Bender's original destination, but then so did Victor, Marvin, and Luke, and they hadn't found diddly. Specifically, they couldn't find any sign that he'd ever reached Gamma Leporis A. No autofactory setup, no mining activity, no communications relay station, and no Bus-sard trail in or out of the system.

I had just returned to Delta Eridani after my big pilgrimage back to Earth. It had been an emotionally loaded trip for me—the Earth would probably be drastically altered once it came out of this ice age, so in a way it was my last visit to my home in any recognizable form. It was ironic that humanity had solved the global warming problem by implementing a nuclear winter. And killed off 99.9% of themselves in the process, but who's keeping score anymore? Stupid humans.

The Delta Eridani system was pretty much as I'd left it. Autofactory support systems continued to collect raw materials from the asteroids, ferrying them back to be formed into ingots against any future need. In the absence of any specific orders, the autofactories slowly produced more autofactories and spare parts for all my various mechanical servants.

Satisfied with the status quo, I invoked my virtual reality system and settled into my La-Z-Boy recliner, surrounded by my library. Shelves full of books, floor to ceiling, never failed to relax me. Spike immediately jumped up and settled herself on my lap, purring contentedly, and Jeeves brought a fresh coffee.

The VR environment was an essential part of my existence. Without it, I was just a disembodied mind. In VR, I had a body, and pets, and a home. And before the addition of the personal VR, four out of five replicants went insane. I'm pretty sure there's a connection.

"Sorry, bud, but I need to concentrate right now," I said to the cat. I turned to Guppy, who was standing at parade rest as usual. "Suspend Spike's program and bring up a representation of the stellar neighborhood, centered on us, radius forty light-years."

Huge fishy eyes blinked.

*[Acknowledged.]*

Spike disappeared in a scatter of pixellation. A moment later, a sphere appeared before me, filled with numerous points of light, all

conveniently labelled. All the star systems within forty light-years of Delta Eridani, categorized by stellar type.

I drew a line with my finger from Delta Eridani to Gamma Leporis A, Bender's presumed flight path. He'd taken off in the right direction, back in 2165, but had never reached the destination. The options were foul play, misadventure, or deliberate decision.

The first two explanations might leave some kind of trace—debris, cross-trail of some theoretical attacking force, radioactivity, whatever. The third would at least show up as a redirected Bussard trail. But to detect any of those alternatives, I'd have to be crawling along at 5% of C. That would require 320 years to completely scan Bender's projected path. Of course, if I found something, I wouldn't do the whole route, but it would still be a whole lot of not very much for a long time.

We're immortal, being computers. But we also operate at millisecond resolutions, so several hundred years would be an eternity to me.

Now, back to the third option—deliberate decision. If Bender had noticed something and turned to investigate it, perhaps someone following his path would see the same thing. Luke and the others hadn't noticed anything, but they had probably been closely scrutinizing their own course rather than looking around. Bender, facing a long interstellar jump in pre-SCUT days, would have been looking for something to cut the tedium.

I tapped my chin for a few milliseconds, working through the options, then turned to Guppy again. "I think I need to attack this from all angles. Have the autofactories build a hundred or so of those long-range scouts we used in the battle of 82 Eridani. Make sure their SURGE drives are powerful enough for interstellar travel."

*[Acknowledged.]*

Once the drones were ready, I would send them along Bender's projected path at 5% C, looking for anything unusual. Meanwhile, there was no reason for me to wait around. I treated myself to one last long look at the planet Eden, rotating below me, then left orbit, heading for Gamma Leporis A at 5 G.

« \* »

Travel between stellar systems is uneventful—thank God. It's hard to think of something *eventful* out between the stars that wouldn't leave me as a cloud of free-floating atoms.

I considered limiting myself to 0.75 C so that I could continue to interact with the Bobiverse in general. SCUT allowed instantaneous communications over BobNet, but if my tau got too high (or too low—there was some argument about how we should be expressing tau), I wouldn't be able to interact in real time, even frame-jacked. But I was just too impatient to test my theory, and anyway the Bobiverse was starting to get weird and cliquish these days. Bobs were getting less Bob-like, and going off in directions that I think would have left Original Bob baffled. Well, if they hit the singularity or something while I was out of touch, hopefully Bill would leave a note with instructions.

I passed the time by reviewing my archived surveillance vids of the Deltans. A primitive race of humanoids, the Deltans resembled a sort of bipedal pig/bat mashup. I'd more or less adopted them and become the great sky god for a generation or two, before joining the tribe in android form. It had been sixty-three years since I'd walked out of Camelot for the last time, after Archimedes's funeral. I desperately missed my friends and the feeling of family that I got from living among them. Bill had scolded me on more than one occasion about the dangers of transferring my affections to a bunch of alien primitives. Well, tough.

« \* »

As it turned out, things got interesting before I even got up enough tau to drop out of touch. About two months' subjective time into the voyage, something triggered one of the monitoring scripts that I'd set up.

We were playing baseball in the Bobmoot VR when a Guppy popped in unannounced. Every Bob on the field stopped dead. Having someone's Guppy show up in the moot couldn't be anything but interesting. Metadata indicated that he was mine, so I put down the bat and gave him a raised eyebrow. As usual, he completely ignored it. Facial expressions didn't mean much to the GUPPI interface. Or sarcasm, metaphor, irony, body language, or social conventions, for that matter. Guppy stared back, waiting for me to say something.

“Well?”

Apparently, that was enough.

*[Astronomical monitoring has picked up an anomaly. You asked to be advised immediately.]*

*Anomaly*, to Guppy, could mean anything, though. Mario's Guppy had once reported an entire dead planetary ecosystem as an “anomaly.”

Luke and Marvin rushed over and hovered. They knew I was following Bender's trail, and this might be news.

I glanced at them, then said to Guppy, “Elaborate.”

*[System Eta Leporis displays unusual infrared signature, together with periodic dimming of the star's light.]*

Luke and Marvin exchanged a glance, then Luke said, “Like a Dyson Swarm signature? You think there's some sort of megastructure? Bender would have investigated that.”

By now most of the field was gathering around us. Baseball was doubtless done for the day, an opinion that Bill shared. “All right, guys. I think we're done. I'll waive the five-inning minimum for this week. To the pub!”

The players gave a ragged cheer, then began to pop out of the baseball VR.

I dismissed Guppy, then transferred to the pub VR with Luke and Marvin and signaled the resident Jeeves for my usual.

We grabbed a table, and Luke glared at me. “Okay, talk.”

“Hmm, well, you guys know I've been scanning for anything unusual around me as I follow Bender's original flight path. My theory is that he saw something and changed course, and we've just been unable to pick up the faint bend in the Bussard trail.”

“Yeah, yeah. Get to the punch line.”

I gave Luke a smile that said *I'm going to draw this out as much as I can* and continued. “Granted, I had no idea what Bender might have been watching for, and what he might have seen, so I've been basically looking for everything I could possibly imagine. I've had to double Guppy's memory so he could keep up.”

“And you found a megastructure signature?”

“I appear to have found something that could be interpreted that way. The question is, do I commit to a course change to investigate? If it

turns out to be a false alarm, I'll basically have to almost start over from Delta Eridani. Forget the time required to circle around—eventually, between all our follow-up trips, we'll have trashed up the interstellar medium so much we'll never learn anything.”

“I think you have to, Bob,” Marvin said. “If it comes down to it, I can order the Delta Eridani AMI to build a new Heaven vessel and matrix, then I'll clone myself into it. That'll be faster than you circling around or one of us heading over.”

“Fair enough. Give me a second.” I popped back into my personal VR. Guppy was, as usual, standing at parade rest. For the millionth time, I wondered if I should retire the Admiral Ackbar image. And for the millionth time, my juvenile sense of humor balked.

“Turn us to head for the anomaly, Guppy. Let me know estimated travel time when you're done. Low priority, don't pop into the moot for that.”

*[Acknowledged.]*

I popped back to Marvin and Luke, to find Luke tasting my beer. “Hey, boundaries, guys!”

“What, I'm going to give you germs?” Luke grinned at me. “That's a pretty good red. I was a little surprised, since I remember us as a mostly dark-beer drinker.”

“Blame Howard. Vulcan has a thriving beer industry, and Howard keeps transferring the templates into VR. He introduced me to this last time I visited.”

Marvin nodded slowly. “He's setting up interstellar trade routes.”

I frowned. “With transit times of years? You can't—”

“Turns out you can, O great all-father. Stasis pods are highly effective for preserving beer.”

I glared at Marvin, both for the correction and the glib dig. “I thought he got rid of his interest in Enniscorthy Distillery.”

“He did. Gave it all to Original Bridget and Stéphane. And her kids inherited it when she died. But Enniscorthy specialized in hard spirits. Remember the Great Romulan Presidential Scandal?”

The thought made us all laugh. Cranston had deserved every bit of

what was done to him, and had never been able to come up with any evidence that Howard engineered the whole thing.

“Howard and Bridget bought up a few microbreweries on Vulcan,” Marvin continued, “and it would seem they have some kind of natural talent for the creation and marketing of the devil’s brew. Or maybe just good business sense. They’re now one of the three biggest breweries in the Omicron2 Eridani system.”

“Hmmpf.” I tapped my chin with a finger as I thought it through—a nervous tic that I seemed to have developed all on my own. Original Bob had never done that, nor did any of my clones. “Well, you can’t *print* liquids, and there’s no point in emailing the recipe without having the actual ingredients available, so I guess physical exports are the only way.” I raised my glass in salute. “Here’s to Howard, the family entrepreneur.”

I glanced around the pub as I slowly sipped my beer. There seemed to be a lot more variation in dress and style these days, and the clumps of Bobs had a tendency to match, as if we were self-filtering by fashion sense. I could swear that some of them were just short of cosplay. Oh, there were no Klingons or Chewbaccae strutting around, but some of the clothing was reminiscent of *TNG* uniforms or Jedi robes. There was even a Bob in a suit and tie. Why in God’s name would anyone *voluntarily* wear a suit and tie?

I frowned and tilted my head in the direction of the suit, glancing at Marvin. He replied with a baffled smile and a shrug. “Don’t ask me, Bob. Replicative drift seems to be accelerating. I think we’re approaching fifteen to twenty generations, and it’s no longer just a matter of enhanced or suppressed attributes of Original Bob. The differences are accumulating, and some clones are going in completely new directions.”

“Uh-huh. And the almost-cosplay outfits?”

Marvin’s bemused expression didn’t change. “Some of those are probably just for fun. Or making an ironic commentary. But the rest, well, I’m not sure if the clothes are influencing the attitudes or the other way around. The *TNG* guys are talking about forming an actual organization in the vein of Starfleet to monitor—that’s the word they’re using—the Bobiverse’s effect on biologicals.”

“Oh good grief. And how are they going to do that? Pass laws? Create a police force?”

“I think it’s just discussion, Bob. No one is actually pushing for organizational changes. At least not yet.”

“Is this anything to do with Thor and his lobby group, after the war with the Others?”

“Not really, no. Thor and his group were stating their preferences, not trying to impose anything on the rest of us. This”—Marvin made a small gesture toward the *TNG* guys—“has a more *intrusive* feel about it, if you get my drift.”

I shook my head, refusing to give the matter any more psychic energy. I raised a hand and Jeeves appeared with another beer.

« \* »

I popped into my personal VR, sporting a pleasant beer buzz and a not-so-pleasant feeling of foreboding. I dismissed the beer buzz, but couldn’t do the same for the foreboding. Bill was right that I didn’t go to moots often enough, but today’s revelations hadn’t been the kind of thing that would encourage me to do so.

I had recently added an outside patio to my library, complete with deck furniture. The weather was perpetually late summer/early fall, with warm sun and a cool breeze. Loons called across the lake, competing with geese and other waterfowl. Sighing with contentment, I settled into a lounge chair, then invoked Guppy. “Fire up Spike and Jeeves, please. Then update me on the course change.”

Jeeves appeared at my elbow with a pot of coffee and some small sandwiches with no crusts. Spike appeared on my lap, right where she’d been when I suspended her program. I scratched the cat’s ear and she began purring.

Finally, sandwich in one hand and coffee in the other, I was ready for business. “Status?”

*[En route to Eta Leporis. Travel time approximately 35 years, including time required to change direction.]*

“Wow, that’s a hike. Will we be in SCUT range when we get there?”

**[Negative. It will be necessary to construct and deploy an intersystem relay station.]**

Crap. More wasted time. Well, it couldn't be helped. I wasn't about to do a side-hop to some nothing system just to build a communication station so I could still access BobNet. Of course, if Eta Leporis had no suitable raw materials when I got there, I was going to look pretty foolish.

"All right, Guppy. Send orders to the trailing drones to adopt a minimum-time flight plan to get to where we changed course. I want the whole area mapped in detail, looking for Bussard-trail spoor."

**[Acknowledged. They will require approximately 24 months.]**

"Noted. Let me know when they arrive and start mapping, and give me the completed report as soon as it's received."

Guppy blinked huge fish eyes and disappeared. I settled back into my La-Z-Boy and put my hands behind my head.

First problem: communications. I could—*maybe*—build a communications relay station when I reached Eta Leporis and send it back along my route to the halfway point. That was suboptimal, though. Beside the uncertainty of materials availability at my destination, I'd be out of touch for years. *More years*, I mean.

Instead, I could direct the Delta Eridani autofactory to build a full-sized relay station with a SURGE drive and send it out. That would be faster, since I could get it started immediately, but this option would still leave at least *some* gap during which I'd be incommunicado.

To handle that gap, I could take one of the drones in my hold, modify it to act as a SCUT relay station, and drop it off en route with orders to decelerate to zero velocity. It wouldn't be ideal; no repair or upgrade capability, for starters. And not a lot of bandwidth, with the size limitation. Well, I wouldn't be running any moots from Eta Leporis anyway. I could live with that. And I could stock it with some spare roamers in case of breakdowns.

Anyway, it only had to operate for a couple of years, until the much larger and more powerful station from Delta Eridani was in position. And investment of equipment was minimal. I had enough spare drones and roamers in my hold for basic necessities.

Okay, one problem solved. I queued up the required tasks on my TODO. Next, the Bender problem . . .

Item: There was a good chance that Bender had veered off and headed for Eta Leporis. But if that turned out to be wrong, I'd receive the report from my trailing drones long before I got there. I'd let Marvin know, and be able to swing around to pick up the trail again. So for the sake of argument, consider that a given.

Item: Eta Leporis displayed characteristics suggesting a spacefaring intelligence lived there. One that had built or was building a megastructure. That thought brought back memories of the Others. I shuddered at the possibility of another protracted interstellar war.

Item: If you accepted that a spacefaring civilization had built some kind of megastructure and Bender had changed course to investigate it, then it was highly probable that something had happened to Bender in Eta Leporis. Otherwise, he'd have built a space station, which would be transmitting his logs back toward human space via radio by now. He'd also have long since received the SCUT plans and already be on BobNet thanks to instantaneous communications.

Conclusion: Caution is highly indicated.

I chuckled at the dry bureaucratise in that statement. Still, it was true. We normally approached a system at a tangent rather than diving straight for the star. But we retained enough velocity to turn in-system in minimal time. Maybe a parking orbit in the Oort would be a better first step this time. And heavy use of exploration scouts. Not cloaked, though—cloaking interfered with SUDDAR, our subspace version of radar.

I rubbed my eyes with thumb and forefinger—an action that had no real point in VR except that it felt good—and started an inventory of onboard assets. I would have to do some in-flight manufacturing. Wouldn't that be fun!

### 3. Trouble

---

Bob  
September 2331  
Outskirts, Eta Leporis

I came to a stop, relatively speaking, more than fifty AU out from Eta Leporis. The definitions of Kuiper and Oort regions were completely arbitrary, especially for a system other than Sol, but there were some practical differences. For instance, matter became increasingly scarce farther out. And metallic deposits became harder to find. The physics of stellar system formation seemed to produce some consistent patterns, one of which was that the heavier elements tended to be closer in, and all the ice and frozen gasses congregated farther out. In the Kuiper and Oort zones, it was almost all frozen clumps of condensed gasses ejected from the inner system when the sun ignited. But, like raindrops, they generally condensed around *something*.

My first task would be to send scouts out to look for useful materials. This part fell within my original design. A Von Neumann probe needed to find raw materials, refine them, and use them to manufacture more Von Neumann probes. Of course, I'd long since exceeded my original design specifications. But it was still relaxing, like doing a routine and mindless task.

This process would take a while, though, which was making me antsy. After years in interstellar space, it might seem odd to be fretting over a question of months. But I'd been frame-jacked way down for most of the trip, I was here now, and I wanted to get moving on my search. And, not to put too fine a point on it, I wanted to see if there was really a megastructure in the system. The Others' Dyson Sphere was the only

other piece of mega-engineering we'd ever seen, and that had been only partly constructed. That the Others might be here seemed unlikely, but it would certainly be a worst-case scenario.

My current orbit was too far out to resolve anything in the inner system with the onboard telescope. That was frustrating, and my immediate urge was to send in some observation drones. But Bender had probably just gone charging in, and that presumably had not worked out well for him. So, like it or not, a slow, careful exploration of the system was in order.

I spent the time deploying my printers and setting up a proper orbital autofactory. Regardless of what I found in the system proper, I would still have to set up a local communication station. In my idle moments, I checked my message backlog. It was huge, after a few decades out of touch. But I was mostly interested in messages from my trailing drones. I filtered for those.

The drones launched from Delta Eridani after I'd left had indeed found that Bender's trail turned toward Eta Leporis—and only a fraction of a light-month before the point where I made that same turn. The fact made me feel more confident about my deductions, and about my plan of action. And slightly smug.

« \* »

It took four months to locate enough material to even make a start on my plans. Transport drones brought mined material back to the autofactory, which slowly churned out finished parts according to the schedule and plans that I'd given Guppy. Roamers assembled drones from the parts and slowly constructed the relay station.

A year after arriving, I finally had enough exploration drones to begin the actual search for Bender. In all that time, I hadn't contacted anyone, other than having a couple of email exchanges with Bill. First, because I didn't want people breathing down my neck, demanding constant updates. And second, because with the small temporary relay station, all I would be able to manage would be audio and video streams. BobTime? FaceBob? It didn't sound likely to catch on.

I ordered local drones to trace an expanding spiral, looking for Bender's trail into this system. The cross-section they had to examine wasn't all that big, not for devices with a four-light-hour detection radius.

And finally, success! Bender had reached here, and Bender had apparently entered the system. I plotted his approach vector and assigned some drones the task of following his flight path.

« \* »

The closer I got to possibly finding Bender, the more excited I got. But at the same time, I became more nervous. The whole history of our interactions with the Others kept coming back—unpleasant surprises, Bobs getting blown up . . . Hal got blown up by them, what, twice? Three times?

I didn't want stories to be told around VR campfires about the demise of Bob-1. But if it *did* happen, I wanted the other Bobs to know. So I found myself reluctant to commit to anything that might put me in danger until the day the interstellar relay station came online.

It had taken a little longer than expected for the Delta Eridani auto-factory to construct and deploy the station, and the delay was maddening. But finally, the day arrived when the new station signaled readiness and came online. I mothballed the kludgy drone/relay station, checked my bandwidth, and performed a long-overdue backup to Bill's monster Epsilon Eridani archive, Ultima Thule.

I held off on updating my blog. I wanted to have something dramatic to post first.

I'd been doing some light astronomy while waiting for the auto-factory to build things and for the drones to find things. I had already identified six planets, the second of which was in the habitable zone. I'd also identified a gap between the second and third planets, which was where the infrared signature was coming from. I couldn't resolve anything in that zone, and the signature was coming from all the way around the star, so my money was on some kind of swarm—possibly the beginnings of a Dyson Swarm, but concentrated in the ecliptic. If

that was the case, and the swarm consisted of something in the order of O'Neill cylinders, it would make sense that I wouldn't be able to make out any detail yet.

The planet in the habitable zone, Planet 2, didn't appear to be inhabited. Or at least there wasn't any kind of radio signature. Nevertheless, I was getting something sporadic from the system in general. Like chirps—very short-lived and seemingly random noise, except for the narrow transmission spectrum. Which was exactly what I'd expect to see if someone was encrypting and compressing their communications. So *something* was alive.

It might be time to rejoin the Bobiverse. I could use some other perspectives on this.

« \* »

The *blaaaat* of the airhorn was answered by the traditional booing, as the audience expressed their love. Bill grinned back from the podium. "Yeah, yeah. Okay, today's meet includes an update from Bob-1"—Bill was forced to wait for a wave of catcalls and cheers to die down—"on the subject of Bender, and the situation in Eta Leporis." This produced a silence far more profound than the earlier noise. Bender's disappearance had become the Bobiverse's version of the Flying Dutchman legend.

I waved my hand in the air and smiled as heads turned to look at me, but I was perplexed. The Bobs have always been irreverent and disrespectful, and I was no stranger to jeers and insults at moots. But this time it hadn't been just good fun. There had been a discernible undertone of rancor.

Keeping my expression neutral, I stepped up onto the podium and scanned the crowd. Undertone or not, everyone was paying attention. "I'm sure most of what I'm about to tell you is already circulating as scuttlebutt, so I'll keep it brief, then answer questions." I gave them the same capsule summary that I'd already shared with Bill, then asked for questions. Hands went up everywhere and I pointed at random.

"Are you just going to go barreling in without any thought of consequences?"

My eyebrows went up in surprise. The tone and the words were

deliberately confrontational. I took a second look at the speaker to make sure he wasn't a non-Bob replicant, but no such luck. I found myself more irritated than I would be if some random person had challenged me. This felt like a betrayal.

"Have you ever known a Bob to go barreling in without any planning? Have you *met* us?" I glared at him, daring him to argue.

"If this does turn out to be a native civilization, you could be interfering in their development. Will you confirm that you'll back off to avoid doing that?"

"Wow," I replied. "Nice use of a prejudicial term. To answer the actual question rather than the accusation, that will depend on circumstances. Signing on to a blanket policy at this point would be ridiculous. At one end of the scale, this putative civilization might have deliberately shot Bender down; at the other end, they might only have noticed the flash as his reactor exploded. Those two scenarios require different responses."

"Or you could just leave them alone. Prime Directive, dude."

I squinted at the Bob, trying to pick up his metadata. Okay, *squint* isn't the right word in VR, but it feels the same. Strangely, he'd set his info to *private*, which struck me as intolerably rude. And that produced a moment of bemusement—why would I do something to me that I would consider rude?

I glanced at Bill, who just shrugged. I turned back to the speaker. "Even if we had laws, *dude*, which we don't, the Prime Directive wouldn't be one of them. That was a plot device, and unrealistic."

"Don't be too sure of that. Some of us are rethinking your attitude."

"It's Original Bob's attitude," I retorted. I found myself getting more and more irritated with this pissant, and made a concerted effort to calm down. "But you have the right to whatever opinion you want." I pointedly turned to another hand and motioned.

"How far will you take the search, if you don't find anything in this system? Will you ask for volunteers to help look further?"

"As far as necessary, and yes. He's one of us, for God's sake."

"So it's going to be another crusade mandated by the senior Bobs, and the rest of us are supposed to just go along?"

I turned my head and sure enough, it was Pissant. I decided it was time to take a stand. “Nice straw-man, jerk-off. What happened to you, got a quarter dose of brains? And by the way, we’ll continue this when you have the guts to show your name, but not until.” Again I turned away.

The altercation appeared to have taken the air out of the room. There were no more questions. If this followed normal Bob-like behavior, though, people were just waiting for the formal moot to be over, so they could talk one-on-one. And that was fine with me. If Pissant came at me again, I’d blackhole him.

« \* »

The moot was over, and most of the Bobs had gone back to their own private VRs. I sat in the pub with Bill, surrounded by empty tables.

“So what the hell, Bill? Mind filling me in?” I glared at him for emphasis over my beer.

“You’ve been out of touch for a few decades, Bob. And I understand why you’ve been keeping to yourself. The whole Archimedes business would be several emotional kicks to the crotch for anyone. But you’re missing things. The Bobiverse is evolving. We’ve got some Bobs here that are twentieth generation and more. Replicative drift is becoming significant enough that some of these Bobs really only *look* like you. And for that matter, there’s a lot more playing around with appearance, and I don’t just mean facial hair. A half dozen or so Bobs have started walking around as full-time Borg.” Bill appeared momentarily embarrassed, then invoked a Cone of Silence over us. That was jarring to me. Normally they were used to cut down on distracting background noise, but Bill’s action was, in this case, intended to prevent eavesdropping. “Honestly, Bob, if you haven’t changed your encryption keys and passwords since your last cloning, you should really do it, just on principle. I already have. I don’t *actually* distrust anyone yet, but I’m beginning to recognize that one of these times we’ll run into a descendant who thinks the ends justify the means, you know?”

I nodded and sent a text to Guppy to do just that, and immediately.

“So what about Howard and Bridget?” I asked, more or less changing the subject. “And Henry Roberts?”

“Neither Bridget nor Henry has cloned. In the former case, that has produced a lot of disappointment and some grumbling in the Bobiverse. Which is probably a good part of why she hasn’t. She doesn’t want to be seen as the default all-wife, I think.”

I snorted. “Original Bob was pretty progressive, but I can still see a certain implicit expectation being a problem.”

“Yup. Anyway, Henry doesn’t show up here much. He’s sailing Quilt right now.”

I raised an eyebrow. “Wait, what happened with Poseidon? Did he finish early?”

Bill laughed. “He gave up after he got eaten the third time, ship and all. He says there wasn’t much point anyway. If you’re going to sail, you should be sailing *to* something. Poseidon, well . . .”

“Yeah. All ocean, no something.”

“Bridget and Howard continue to catalog all life in the cosmos,” Bill continued with a smile. “Despite, you know . . .”

“The infamous Prometheus expedition.” I shook my head. “Well, they’re never bored, anyway.”

I hesitated, not sure how to continue. A couple of Bobs came over, detected the Cone of Silence, and veered off to find other conversational partners, or possibly just a beverage.

Finally, I decided that trying to beat around the bush with Bill was pointless. “So, getting back to replicative drift. What was with the nameless mouthpiece? Are we getting political parties now?”

“It’s a little more than that, buddy. Bobs in general have always been a herd of cats, but it’s getting both more and less pronounced. Bobs are forming groups, and some of those groups are tending to the bizarre. There’s a group trying to build a Matryoshka Brain, for instance.”

“Uh . . .” I drew my head back and frowned. “With the Casimir power source, we don’t need—”

“The central star for power. Yeah. But heat management is heat management, and a gravity well is handy for keeping things organized. My understanding is that they’re building it around a gray dwarf. Anyway, I’m more concerned about them creating something straight out of a Vernor Vinge novel.”

“Or Lovecraft.”

Bill chuckled and dismissed the Cone of Silence. “Anyway, Bob, you should read my blog to get caught up. I don’t pull any punches, so you’ll get a good overview of where the Bobiverse is going.”

I nodded and raised my glass in salute. Bill turned to someone who had been waiting to get his attention, and I went looking for Luke and/or Marvin.

I couldn’t suppress a snort as I scanned the gathering. Bobs as Borg now.

Cthulhu would not approve.

« \* »

Bill was probably right. I’d done my usual turtling thing and effectively cut myself off from society in general. I needed to fix that, and I might as well start with a visit to Will. He had, according to his blog, finally retired from colony administration at 82 Eridani and gotten himself a place on Valhalla, where he was involved in the ongoing terraforming of the largest moon of Asgard. The air on Valhalla was still a little thin for humans, but a manny wouldn’t care.

I pinged Will and in short order received an invitation and address for a guest manny. I took the address and popped over.

A few milliseconds of diagnostics, and I opened my eyes to find myself on an outdoor deck, looking up at a sky more of a mauve than blue. Hanging in the middle of the expanse was Asgard, looking perhaps three times the size of Earth from Luna. Will was sitting on an Adirondack chair, holding a coffee and grinning at me.

He wore the standard Bob Johansson manny, but no longer sported a neat Riker-like beard. His hair was uncombed and stuck out in random spikes, and the beard was more like what you’d get if you simply stopped shaving. The manny, so called because the early models had resembled department-store mannequins, was dressed in something that was closer to a lumberjack outfit than anything else. I knew without looking that my guest manny would be generic human and hairless, although not cadaver-white like Howard’s first version.

I undraped myself from the support rack and sat across from Will, then attempted to materialize a coffee out of habit. He grinned at the expression on my face and motioned to a side table, where a coffee flask and some cups were set out. "Sorry, Bob. Out here in real, we prepare our coffee the old-fashioned way."

I smiled back at him. "In real?"

"Language marches on," Will said. "Nowadays it's *real* and *virt*."

"Huh. Noted." It took only a few seconds to get my own coffee, then I raised the cup in salute. "You've changed your look a little."

"I've felt a need to distance myself from the old Riker persona, for a lot of reasons—one of which is that I had a hard time getting people to stop coming to me with colony-related problems. They couldn't accept the idea that I had retired. Once I adopted the mountain-man look, I think they got the message."

"So how is the retired life?"

"*Retired* just means I don't have a job description, and I can work on what I want now. I've been spending most of my time on the terraforming of Valhalla and some personal projects. It helps that I live here; I can see the results of changes right away."

"And how's that going?"

Will waved a hand in a self-deprecating gesture. "Bill did a lot of the pioneering work on Ragnarök, of course. Cleaning up the air, adding water, adjusting the biosphere—Valhalla actually *has* a native ecosystem. Bill made most of the mistakes. I just avoid those."

"Are you losing much in the way of native stock?"

"Surprisingly, no. It was a fairly hostile environment when we started, kind of like being up the side of a mountain in the high latitudes. What we're doing to the moon is making life easier. Warmer, more oxygen, more water, and so on. Our challenge is to introduce Earth stock slowly enough that the native stuff doesn't get outcompeted before it adapts."

I nodded, took a sip of coffee, and flinched. In the still-too-thin atmosphere, water boiled at a lower temperature, so coffee prep was negatively affected. The coffee was lukewarm and thin. But that was the price you paid for running a manny in, uh, real.

I looked at Will over the rim of my cup and changed the subject. “Listen, I already talked to Bill about this, but I wanted to get your perspective on things. About the moot the other day.”

Will grimaced. “I wasn’t there; we were having a problem with one of the fractionators. But yeah, I heard about your face-off with Morlock—”

“Morlock? He named himself *Morlock*?”

“Nah, he named himself Jeremy. Which might be coincidence or might be a subtle nod to that *Time Machine* remake. But he goes by Morlock these days.”

Will raised an eyebrow at me, inviting comment. I gave him a small head-shake, and he continued: “Replicative drift is turning out to be a real thing. Bobs are recognizably one of us until about fifteenth generation or so, then the drift begins to accelerate. We haven’t had any out-and-out psychos yet, but we’ve definitely got some assholes.”

Well, so much for visions of a galaxy-wide race of Bobs. Still, diversity might be a good thing. After all, the human race consisted of billions of individuals and had still managed to . . .

Almost obliterate themselves. Crap.

This was a problem. A big problem. Original Bob’s hands-off approach might not cut it in this case.

I opened my mouth to reply, just as a message from Guppy imposed itself on my field of view.

**[*In-system scouts have been attacked. 100% casualties.*]**

I barked “Gotta go!” at Will, and popped back into virt. I quickly texted him an apology for not reracking the manny and promised to explain later.

“What’s going on?” I said to Guppy.

**[*Telemetry is queued up for inspection.*]**

I grabbed a few video windows and started playback. The drones were coasting along Bender’s trail, SUDDAR ensuring that they didn’t lose it, when the transmission from one of them abruptly disappeared. The second one cut off a millisecond later, before even the AMIs could react in any meaningful way. The third, though, took a glancing blow or near miss or something. It was disabled, but managed to reconfigure SUDDAR and get a low-res scan before that signal also disappeared.

The fourth window contained the results of that scan. Two craft had approached unnoticed from the scouts' five o'clock and unleashed some kind of attack. They were about twenty feet long, most likely automated, and clearly not intended for atmosphere. A skeletal structure composed of girders or beams formed the base shape, onto which were bolted various pieces of equipment with no concession to style. What had to be beam weapons were bolted onto opposite corners, and communication dishes took up the space at ninety degrees to the weapons.

I took a look through the logs and couldn't find any indication of approaching missiles. There was, however, a brief temperature spike just before the signals cut off, which confirmed the *beam weapon* hypothesis.

"Lasers. Interesting choice. Not generally a good combat weapon." I stared at the window for a moment longer, then closed it. "Guppy, why didn't the scouts detect their approach?"

**[SUDDAR was concentrated forward in order to resolve the Bussard trail, which had been diffused by in-system gravitational effects.]**

Okay, fair enough. In interstellar space, a trail would be virtually undisturbed for centuries. Not so much once you got inside the helio-pause.

"We didn't get a SUDDAR pulse from them?"

**[Negative. Telemetry from the last scout detected radar pulses.]**

"Radar? They use *radar*? Who uses radar these days?"

**[Apparently, they do.]**

I glared at Guppy, and not for the first time made a note to do some black-box testing on him. Sarcasm required self-awareness, and not once had a buster or drone ever given me this kind of back-talk.

Still, the basic facts remained, and shone a light on something that I mostly managed to forget: I was not a military thinker. I'd gotten too comfortable after successfully dealing with Medeiros and the Others, and had behaved stereotypically. And gotten my butt handed to me. It was time to resurrect some of that good old-time paranoia and start thinking defensively.

"Well, that's just peachy. And they just attacked without warn—" I stopped as I had a thought. Guppy had a bad tendency to not volunteer

information. Attempts to change his behavior had just resulted in huge dumps of irrelevant data. I still wasn't convinced that wasn't passive-aggressively intentional. "Guppy, did the attackers do anything besides ping us with radar?"

*[Affirmative. There were several radio transmissions.]*

Probably challenges, either to determine friend or foe, or even if the scouts were something other than flotsam. And I didn't know the proper response. So no real help there. In fact, if we'd responded, it would have alerted *whoever* that there was someone else in the system. Which might also be a bad thing. Just ask Hal.

So, caution was still indicated.

« \* »

I invited Bill over to take a look at the video records. He tapped a spot on the video window. "That's interesting. You see that?"

"Mmm, yeah. Fusion torch. Great for acceleration and maneuverability. But hard on fuel."

"Over the short haul, they could probably outpace you, Bob. Best be careful."

"Hmmp." I sat back in my La-Z-Boy. "Not that I'm planning on going in and introducing myself. That's two encounters, two attacks, and one lost replicant."

"Some assumptions in there."

"Reasonable ones. Enough that I'd need some evidence to the contrary before I'd change my mind." I reached over and scrolled the window forward a fraction. "No SUDDAR, no SURGE, no SCUT. They, whoever they are, haven't discovered subspace theory. On the other hand, their fusion drive tech is impressive, and if I'm right about them having used lasers, so is their weapons tech. That's a lot of wattage out of a drone that small."

"Which means their fusion reactor tech is probably better than ours." Bill grinned and shrugged. "Not surprising. No one uses fusion reactors anymore."

True. We'd long since switched to the Casimir power source that

we'd gotten from the Others. It was far superior to any kind of fusion reactor, for reasons including but not limited to a complete lack of detectable emissions. Naturally, work on fusion technology had subsequently stagnated, but no one cared.

"So . . ." I tapped my chin in thought. "These, uh, whoever's have perhaps continued development in more traditional directions, and may have surpassed us in some other technologies as well. While being totally deficient in others. Their drone designs reflect that."

"Fair summary. How about *Boojums* for their drones?"

"Sure, why not?"

"So what's the plan?"

"Plan? We don't need no stinking plan." We both grinned. "Seriously, at this point I'm only up to *don't get caught*. It's a little nebulous after that."

"We have designs in the archives for evading radar detection, you know."

I stared at Bill for a moment. "Jeez. I must be getting old. Okay, so, some kind of radar-proofing, carbon-black exteriors to foil visual, low-power electronics combined with a super-cooled heat sink to counter infrared detection . . ." I sat forward as my enthusiasm mounted. "We can coast in, we don't need to use cloaking since they don't appear to have SUDDAR. So we can use long-range SUDDAR to watch for patrols . . . yeah, this is good!"

"Now you're cookin'. Do you have enough trajectory data to plot Bender's probable location?"

"Within a huge margin of error, yes. I'll send some more scouts the long way around to look for where he might be by now. Or his remains." We were both silent for a moment as we processed this thought in parallel.

"Sounds like you've got some work to do, Bob," Bill said. "I'll leave you to it."

« \* »

*Some work to do* meant some engineering design work to get the combination of attributes that I wanted, based on plans and notes on BobNet. Whatever else the wars with the Others and Medeiros may have done,

they greatly accelerated battle-related technologies. But hasn't war always done that?

The engineering was no big deal. I am, after all, a computer—even if I don't acknowledge it most of the time. The actual construction work, well, that was going to take longer. I still had to do everything out in the Kuiper/Oort interface, and there was still no miraculous cache of handy elements to make my life easier.

The one new piece of tech I added was a core of ice at a couple of degrees Kelvin. The scouts were designed to be ultra-low-power, which meant very little heat generation, but I didn't even want *that* to show. Waste heat would be transferred to the ice core, which would gradually warm up. I had calculated the heat transfer rate, and I was pretty sure the scouts could make it through the system before their heat sinks gave out and they started to radiate significant infrared.

On the downside, to keep within the heat budget, they wouldn't be able to maintain continuous contact. That meant I could conceivably lose them and not know it until they failed to report in. Well, life isn't perfect.

I calculated trajectories and times and launched the scouts myself via rail gun. Ballistic all the way, baby. If they had to maneuver, that would be the end of the heat sink. If all went well, it would be months before they sailed out the other side.

By the time I'd done this, the other scouts had made it all the way around the system and were running a search pattern on Bender's expected location. I'd told Bill the margins of error were huge, which meant a large volume to search, but I was still disappointed by every day that went by without result.

For no other reason than to have something to do, I set myself a course to the other side of the Boojum system. The long way around, though. I still wasn't prepared to fly *through* the system, even a little bit. I had no idea how far out the Boojums patrolled.

I was about halfway around when Guppy made my day.

***[Scouts have found something.]***

“Cool! What do they have?”

***[Something.]***

That black-box test was going to be done with no anesthetic. And soon.

“Give me the report.”

A window popped up in front of me, replete with all kinds of statistics and measurements. The most important item, though, was an image of a shredded section of a Version 2 Heaven vessel.

Bender.

## 4. Collection Run

---

Herschel  
October 2332  
New Pav

I watched on the monitor as the drones chivvied the ingots into the hold. As each massive block of metal arrived, roamers wrapped it in cable netting and carefully winched it up against a wall, then tied it down. We'd have raw materials for just about any project we cared to take on—for a long time.

The deal Jacques had struck was certainly efficient. Because Neil and I had been running around from system to system for the last fifty years or so, we had not had much opportunity to stop anywhere and stock up. And in any case, the residents of those systems would not have been happy with us poaching their natural resources.

We'd contacted the Pav on the way in. The kindest description I could give for their attitude would be *curt*. I guess Jacques was right about them. The thought made me sad; overall, we hadn't been having a lot of luck with alien species. Between the Others, the Pav, and the Deltans, I was starting to wonder if it was outright impossible for mutually alien intelligences to get along. And if the local area was at all representative, there must be a *lot* of intelligences out there. Eventually, we'd run into another starfaring species with a technological advantage. That made war—and possibly the extermination of humanity—statistically inevitable.

I shared my thoughts with Neil, who was, as usual, draped over his chair sideways. “Jeez, Hersch, that’s gloomy even for you. You need a new hobby. Or *a* hobby at all.”

“Har de har. But what’s wrong with my logic, Neil?”

He sighed and was silent for a few mils. "Nothing, I guess. So what do you want to do about it? We're still pond scum."

"Nah, we haven't been that for almost eighty years. We own and operate the biggest damned cargo ship in human space. We are *personally* responsible for setting up at least five colonies. I think we have some street cred."

"Yeah, I guess so," he replied. "And *please* don't take that as permission to do a Picard impersonation. I don't think I can take it anymore."

"You got it. So what can we do with all that cred?"

Neil pursed his lips and stared into space. "To be honest, my first thought when we got word about this windfall was to double our mover-plate count and accelerate to beat hell for somewhere interesting."

"Like Ick and Dae? And Phineas?"

"And at least a dozen others. A lot of Bobs are just taking off, Hersch."

"Seems kind of, I dunno, self-absorbed. I was thinking more like trying to place a human colony well outside of human space."

"In case you turn out to be right."

I gave him an apologetic shrug. "We still have all the stasis pods from the Great Exodus. There's simply never been any reason to off-load them anywhere. And that's the thing. There's no more reason for the pods. Or for the *Bellerophon*, really. We're obsolete."

"So to make ourselves relevant again, we try for another colony. And if we used the ore to add another thirty-two plates, we'd be able to push some really stupid G's," Neil said, warming to the subject.

"So a human colony out in, say, the Perseus arm—"

"Would ensure continuity, even if the rest of humanity ran into a bigger, badder Others."

I nodded. "Now all we have to do is figure out how to locate some volunteers."

## 5. Investigation

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Bob  
November 2332  
Outskirts, Eta Leporis

A cloud of wreckage slowly revolved around a common center of mass. Some of it was recognizable; most was not. I was a little surprised that there was much of anything—I wouldn't have expected a laser to leave much more than slag. Of course, I was assuming that whatever attacked Bender used the same techniques as the drones that attacked my scouts.

I would know more once I arrived. It didn't make sense to have the drones try to collect all the detritus and bring it to me. That would take too long and carried too much danger of losing or further damaging something. Instead, I'd fly in with my complement of roamers and do a close-up inspection. But first, I set the exploration drones to watch for any approaching Boojums, even though it seemed unlikely that they'd take a sudden interest after letting the wreckage drift unmolested for so long. The fact that the wreckage was drifting *away* from the system was probably relevant. But if I'd triggered any alerts with all the activity, they might change their mind.

I fully admit that I crossed the distance a lot more quickly than I should have. Caution, for the moment, was taking a back seat. Fortunately, I didn't run into Boojum pickets. Even more fortunately, I didn't run into an asteroid.

I set the roamers loose to examine the wreckage. It quickly became obvious that what I'd suspected was true—an internal explosion had ripped Bender's ship apart. Most likely the laser had taken out the

nuclear reactor control system in such a way as to make the reactor fail catastrophically. I remembered my first encounter with Medeiros, in Epsilon Eridani, so many years ago. He'd suffered that very fate. In addition, the meltdown had taken out his matrix. I had to hope that Bender hadn't come to a similar end.

It was an entirely different ship design, of course. Medeiros was riding a military ship designed by the Brazilian Empire. They considered even their human soldiers expendable, never mind a replicated intelligence. Bender was riding a ship that I'd redesigned, with special attention to keeping the replicant matrix safe. This bit of simple self-interest gave me hope.

Outside inspections complete, the roamers entered the remaining section of ship. I had multiple windows up, trying to watch everything at once. Finally, I gave up trying to maintain my VR. I dismissed my library and frame-jacked. Now I could keep up with everything, and putting up with naked floating data windows was a small price.

One of the roamers bleeped for attention. I turned to the window, and would have smiled if I currently had a body. The roamer had found the replicant matrix containment, in the most heavily armored section of the ship. And no obvious damage.

Then elation was replaced by horror as the roamers opened the containment . . . to find it empty.

No, not empty. Worse than empty. Not only was the replicant matrix missing, but all of the interface hardware had been carefully removed, probably as a unit. This was not good. Someone had made a point of removing Bender and his support hardware in a way that implied an intention to study and possibly revive him. I remembered Homer, and cringed at the specter of Bender, helpless and subject to torture.

One thing was for sure, though—the Boojums, or their makers, knew that someone else was around.

Having found Bender's empty ship, I had now flip-flopped from panicked rush back to paranoid caution. I wasn't going to hurry anything, I wasn't going to take any chances on attracting the Boojums or, well, running into an asteroid. The flight back to the autofactory area would take most of a week.

I had one quandary to deal with, meanwhile. Would I make an announcement now, or wait until I knew more? *Could* I even keep quiet for a week? For that matter, would Will be able to keep his trap shut? I hadn't actually asked him to, although I was sure he would wait rather than steal my thunder.

Screw it. I pulled up my console and began writing a blog entry. I had a large following anyway, being the first Bob replicant, and I could be pretty certain that Luke and Marvin would be watching every post.

It took a few full seconds of thought to get the tone right. Cautious optimism, mixed with a realistic appraisal of possible issues. Hope, but be prepared.

Finally, it was done. I hit *post*, then sat back and waited. 3 . . . 2 . . . 1 . . .

Luke, Marvin, and Bill popped in at the same time, all talking at once and waving their arms. I turned in my office chair and waited until the noise died down.

"Why, yes, I'm free right now. Come on over," I said.

"Bite me," Marvin replied. "Where is he?"

"Well, that's the sixty-four-thousand-dollar question, isn't it?" I materialized chairs for everyone, and Jeeves entered with coffee.

"Dammit," Marvin muttered. "Dammit, dammit . . ."

"What's the next step?" Luke asked. "Do you have a plan?"

"Nothing concrete, yet. I guess the first step is to find the Boojum base, or source or whatever. There's a good chance Bender will be there. Hell, we can just fly in and SUDDAR the hell out of it, if it comes to that. Locate Bender's matrix, then go from there."

"A raid?"

"If that looks like the best plan." I stuck my chin out. "If someone has kidnapped Bender and is experimenting on him, I'm not sure diplomacy will be my first choice."

"Easy there, Bob," Bill said. "Let's see what we find before we start building bombs, okay?"

"Yeah, I know. Don't worry, I'll be circumspect."

There followed one of those silences where no one quite knew what

to say. Finally, Marvin nodded and he and Luke stood. They gave me a wave and popped out.

Which left Bill.

“So, number two, what’s up?”

“Oh, ha ha. Listen, I wanted to ask you just how you plan to go in-system looking for the Boojums, and how public you’re going to be about it.”

“Public? What the eff? Are you saying there’s any question?”

“Of course not, Bob, not from me or any of the others in our generation. But Starfleet is agitating—”

“Starfleet? What?”

Bill sighed. “You still haven’t read my blog yet, have you?”

“Uh, no. Sorry, been busy.”

“Remember Morlock? We’re calling him and his group Starfleet now, because of their obsession with the Prime Directive. It’s become gospel to them. They don’t even want us to keep interacting with humans. They’re trying to generate support for a formal declaration of some kind that you should leave whatever you find alone.”

“Is a formal declaration anything like a law?”

Bill snorted. “We don’t have laws. But if enough people got together, they could apply social pressure of some kind.”

“What, like shunning?”

“Well, something like that, in principle. A loss of prestige, anyway.”

“For God’s sake, Bill, Original Bob never gave even a small fraction of a rat’s ass about that.”

“Yeah, I know, but more and more Bobs are becoming less and less Bob-like. I’m starting to call them replicants, in fact, instead of Bobs, just to make the distinction.”

“And they’re more concerned about prestige?”

“Given a random walk, you can’t very well drop below zero rats’ asses, but you can increase the value arbitrarily. So, yes. We’re getting more replicants who are, for want of a better word, joiners. They’re forming mutual-interest groups for all kinds of things.”

“Like Starfleet, and the Borg.”

“Mm-hmm. And the *Skippies*—”

“*Skippies? Skippies?*” I could feel my eyes bugging out, even in VR. “What, they’ve changed their avatars to beer cans and started calling people *monkeys*?”

Bill snorted his coffee and had to take a moment to compose himself. “No, it’s the group trying to build the Matryoshka Brain. You know, singularity, super-AI, and so on? I don’t know who started the nickname, but the *Skippies* haven’t complained yet. They also, by the way, want us to leave the humans alone. But in their case it’s because they think the humans are holding us back from our destiny or some such.”

“Are there any other—no, never mind, I’ll read your blog. Goddammit, I go away for a few decades and the whole place falls apart.” I grinned at Bill. “I have some catching up to do, apparently.”

“There’s an understatement. Let me know if you need anything.” Bill gave me a nod and popped out.

Interesting times, indeed.

## 6. The Search Expands

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Bob

May 2333

Outskirts, Eta Leporis

I sat in my library, blearily gazing at the table in front of me. Will, Bill, and Garfield watched me silently, the occasional slow head shake the only commentary offered. Every once in a while, I took a half-hearted sip of my coffee. Bill finally couldn't take it any longer. "You *do* understand you're in *virt*, right? You can just dismiss the hangover, right?"

I responded with a pasty half-smile that was probably more terrifying than reassuring. "Yeah, and in the future I'll do just that. There's no metric in which this is enjoyable. But after finally reading your blog—well, Original Bob was by no means an alcoholic, but he did occasionally, when it was called for, go on a, uh . . ."

"Bender. Did you make that whole speech just to deliver that line?"

I chuckled, then groaned and held my head. "No, it was just a bonus. But goddammit, Bill. We *are* diverging. Nothing bad, yet, but I think you're right in expecting it. And we actually have a Bobbi now?"

"That's just a rumor. I don't know of anyone who's met her. But really, that's inevitable too."

I sighed and considered doing a reset and dismissing the hangover. It had served its purpose, whatever deep psychological need for self-flagellation was involved. But now my curiosity was up. "This feels pretty real. Verisimilitude in VR—uh, *virt*—has really been improving."

"Part of that's the mannies, of course," Will said from across the room, where he was nursing a soft drink. "Once we started experiencing

things in real again, we realized how granular and synthetic the virt experience actually was.”

“It helped that humanity was back on its feet by then. We had actual experts to ask about some of the finer points.” Bill waved his cup in a vague out-there gesture. “Like Bridget, for instance. She’s ferociously competent in the biological sciences, and, naturally, highly motivated now to help with the improvements. And with SUDDAR scans, we can accurately map how the human body and brain respond to various stimuli. Like taste and other senses.”

“And hangovers.” I grinned, then winced again. “She and Howard live almost full-time in real, right?”

“Yup. And raising kids as well. I’ve lost count of how many they’ve adopted over the years.”

“Well, here’s something to chew on,” Garfield said. He’d been silent up to this point, so we all turned to him. “And it’s important if you want to maintain perspective on your place in the cosmos.” He paused for dramatic effect. “As replicants, we never get tired, we have near-perfect memories, we can process hundreds of times faster than humans, and we have instant access to all the information available in our archives. But we aren’t any smarter than Original Bob was. And reading about something isn’t the same as being trained in it. You can’t become a doctor by reading *Gray’s Anatomy*, for instance. Or watching it.”

I frowned. “Okay, I get that in principle, but how is it important?”

“We can’t do everything ourselves. For instance, without Bridget, the androids wouldn’t be anywhere near as advanced as they are. We’ve improved our weapons by talking to military types—”

“Or stealing from them,” I interjected.

Garfield glared at me for the interruption. “We’ve become a sort of society unto ourselves, but for the most part we’re still doing the things Original Bob was interested in. We’re a monoculture. Specialists. And that’s not healthy.”

“So you’re saying . . .” Bill raised an eyebrow at him.

“That I’m not sure replicative drift is a bad thing, necessarily.”

“Gar, I don’t *trust* some of the new replicants,” Bill said.

“Nor should you. They’re different people. But the Bobiverse needs

to be robust enough to handle a society where not everyone's priorities align. Sure, we need to be more worried about security and such. How is that different from locking your house or your car, though?"

"That does it," I said. "This conversation is incompatible with a hangover." I did a reset and felt better immediately. "Does this mean we'd accept other humans as well?"

Bill shrugged. "We've always been willing to do that. But we've gotten no takers. At least none who've decided to deal directly with us. Those that have chosen to go with replication have signed with companies that offer shared processing in a large computer facility. The bigger the monthly fee, the more processing power and extras you get. There are options like many connection ability, and even premium many models available only to the highest-paying clients. Most of them, though, are just spending their afterlives engaged in full-time virt."

"That doesn't make sense. This is freedom. The best kind of freedom, where you can do what you want, with no reliance on anyone else."

"Not really, Bob. That sounds good to a loner like Original Bob, but to a lot of people it would be the opposite of attractive. Among other things, self-reliance means having to be responsible for everything yourself. Much easier to just pay someone to take care of the details, if you have the money. And remember, this is immortality for a copy of you, at the expense of permanently destroying original you." Bill paused, then shrugged in dismissal. "On the other hand, there has been a *lot* of interest in postmortem corpse storage in real, and in fact, companies have been springing up all over the colonies, offering to warehouse people after death, just like with Original Bob. Except now they use stasis pods, so there's nothing irreversible about it. And they're doing a booming business."

"Because when you come back . . ."

"It'll be original you. Yeah. Much more attractive option."

Will sighed. "Except for people like Justin, who have a religious objection."

We commiserated in silence for a mil. As the "face of Bob," Will had been especially close with our relatives for decades. Julia's death, then her son Justin's, had hit him every bit as hard as Homer's.