

102

third time's the charm

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If you happen to be new to this region of space, between the Hyades and Pleiades clusters that is, what grabs your attention most are the names given to the stars and planets around here.

Almost all of the systems up to thirty parsecs from the Earth were named by either the scientific community, or the survey teams sent out by the members of the old FTL-Drive Consortium—that being the United States, United Kingdom, Russian Federation, Republic of China, and the French Republic. To lock in these holdings, early on the member states took heroic measures to send in civilian settlers as well as diversified holding companies to set up shop.

While focused on incorporating their colonies, when FTL-Drive was finally wrestled from the consortium's control it didn't take long for the rest of the world to vault past them.

The original Russian teams that surveyed this region of space were supplanted by settlers out of Australia, New Zealand, Ukraine, Czech Republic and Canada. The Aussie's and Kiwi's were the first in and, with the two notable exceptions being 83 and 94 Tau, they ended up naming almost all of the habitable systems in a 25ad patch of sky between 30 and 160 parsecs.

Everything in this region has an Aboriginal or Maori vibe to it.

95 Tau was named after a long white haired aboriginal beast called, Yowie. Gas giants with habitable moons are a common thing to find around bright stars, and the grey and reddish stripped gas giant, three astral units away from Yowie, was named after a rose-crested cockatoo, the Galah. Its big moon, where everybody here lives, was named Cooee, which means "come here" so, in that spirit, that's what people did!

The one major city on Cooee was also named Cooee, because Gang-Gang didn't go over well when the non-Aussie's started to move in, and it became one of the hot spots for people coming out to the Hyades when New Brisbane, on 83 Tau, was restricting immigration. Long before Ngāti Whā became a thing, Cooee had the best beaches, casinos and brothels in the Hyades, and even though New Darwin has syphoned off a big chunk of that getaway traffic, Cooee is esthetically prettier and still controls the regional vacation market.

As a planet, Cooee happens to be tidally locked to Galah, no surprise there, but its polar orientation has the traditional north-up and south-down Latitudes. Unlike Taiji, this rock has no rotisserie spin to it and Cooee, as a city, is on an island dead center of the leading-orbital western hemisphere with a day/month cycle of 3.33 earth days.

The residents would have preferred a location at 0-Latitude by 0-Longitude, facing the not so giant gas-giant, but the permanent oceanic high tide that is being pulled towards Galah has swamped all of the potential islands facing it. This orientation of Cooee, the planet that is, has created a permanent neap tide zone that has revealed a belt of mountain top islands that lap the entire planet along the 90° Longitudes on both the eastern and western hemispheres.

The north/south running island that straddles the equator on the western hemisphere, christened New Rakiura, or simply Rakiura around these parts, is an overgrown lush-green landmass about the size of Sumatra but just a smidge less thicc. Cooee, the city of that is, runs along the south-eastern coast of Rakiura and faces out towards the planet Galah—that is permanently hovering over the far horizon.

The planet Cooee is the size of Mars but it's way more dense than Earth, chock full of heavy elements ripe for the taking, and since the core has a fair amount of Uranium in it there happens to be an overabundance of Helium percolating up from that core into reservoirs just below the surface of a metals rich crust. Mining stuff like Uranium happens to be a thing here, as is converting it to yellowcake for processing and export is of primary concern, yes, but the extensive network of tunnels as a result of that effort, crisscrossing the entire length of Rakiura, also have a conveniently utilitarian purpose.

Now the next practical industry here, after turning yellowcake water into U-235 wine, they have breeder-reactors just outside the city of Cooee, suppling all of its energy needs at zero cost to the citizenry, and from the Uranium isotope-must they've pulled from the ground the reactors distill the fissile *Cognac digestif*, Pu-239.

Plutonium has few practical uses other than tactical flambé...

There are a number of grades of Plutonium, that is ²³⁹Pu with less of the annoyingly unstable ²⁴⁰Pu contaminant. Those grades, from

lowest to highest, are Reactor Grade, Fuel Grade, Weapons Grade and Super Grade! Super is 2-3% of ^{240}Pu by volume—and for what they are doing here, as a hidden ancillary industrial pursuit in the tunnels under the northern half of Rakiura, well, that ain't gonna do!

In nuclear industry circles, the purest of pure Plutonium at 99.5% is labeled Reagent grade, and jokingly called Ivory Soap Grade, but here on Cooee the technicians are producing what they refer to as Cherry Grade at 100% pure Plutonium-239.

Pretty much everyone uses the "Cherry" classification as well. Well, everyone who happens to be involved in producing the Cherry Pit cores for mico-nuclear weapons that is, and here on Cooee they have four land based pit manufacturing plants hidden underground with only one of the facilities actually producing the Cherry Pits. The other three simply store and laterally pass raw materials like ^{60}Fe , ^9Be and ^{197}Au used as tampers, pushers, neutron reflectors, as well as O^2 barriers, with the gold-plated spherical pits already implanted into tiny, ready to use plug-an-play warheads the size of a 12-gauge slug, with yields ranging from 50 to 55,000 kge, coming back the other way. That said, the actual purpose of the three "fake" plants is as targets for the SA to drop bombs on so, for today, in just a few seconds in fact, Rakiura is going to get hit yet again!

The problem with the YDF, the Yowie Defence Force, is that after the first attack by the Annex, six years ago when they easily destroyed a fake operational plant here, the YDF optioned the use of megaton level nukes as booby traps—which got the attention of the SA just four years ago. One could say that this violates the moratorium on the use of atmospheric nukes over 1kt but, since it's a weapon they choose to use to defend themselves, it doesn't violate the one-kiloton limitation. The SA has to abide by it, but if Cooee wants to mega-nuke themselves then nobody gives a shit!

The second attack, again four years ago, did not impact pit production one iota, meaning that the Annex was yet again lured away from the actual plant so, this time, the SA finally figured out where the real pit-n-warhead plant happens to be hidden.

The YDF could not prevent the daily jumps by the SA Grigori's into low orbit over Rakiura, but the data the Cwn Dawgs collected, five-second snapshots of the radiation from below the surface of the planet, yielded images of just the three underground hot spots. They could differentiate the signature of the isotopes being staged there, but as for the plant itself—oh where, oh where can it be?

For three years, they've been getting nowhere.

Frank Zamboni, who shadows Maria anymore as her personal pilot and de facto sidekick, many times finds himself in the middle of

impromptu meetings and discussions that most people would not be privy too. The one thing that Maria respects in Frank is his silence, and if he happens to be at one of these off the cuff meetings, Frank simply doesn't say shit unless he's asked something directly, and even then his response is almost always the *'it's not my pay grade'* quip in jest. Just two weeks ago, in a chance encounter with Peña and Yoon, Frank actually threw out an unsolicited suggestion from left field and, plum out of ideas, they give what he proposed a whirl.

Like in Astronomy, they compiled and layered the data from the last three years into a single image, but it's what they didn't see that pulled their attention. From each of the three known radiation hot spots that say, *'drop bombs here,'* they noticed a shielded tunnel that blocked all background terrestrial radiation, including the hard to spot geoneutrinos emanating from the core. The three dark pathways, devoid of any radiant signature, wound their way by more than 200 kilometers out to a large dark spot at the far northern end of the island that covers over twenty-two acres.

It goes without saying, ol' Frank's serendipitous contribution to this long and grueling effort has landed him a prime spot on a Warthog for today's mission...

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One minute after 17:00zulu, three of the Kid Buu Wrecking Crew, specifically the Wake, K'uk and the Sforza, SA75, 79 and 80 respectively, blow in below the lowest orbital tracks and smack-dab right over the city of Cooe. From a dead stop, each one drops a full company sized assault consisting of six drop ships, half slicks and half Warthogs, as well as launching sixteen fighters. The three Mbande platforms then zip out over the far northern end of the island and hit the brakes right above the three hot spot 'targets' far below. From here each platform catapults another sixteen Thunderbirds as well as dropping twelve Thunderbolts from the underside drop stations. Half of the ASF47s are SEAD-Weasels and the rest of them are fresh off the line bisEa interceptors to fly counterpoint to the new and blisteringly fast IR5-Express in case those things happen to show up.

Oscar Peña is now in command of the RRF so he and Jacob swap jobs for today, and as the Mbande shoot out of the system, and with the assault teams dropping fast, he and Jacob blow in with over three hundred RRF fighters from the three stations, ["Okay, Grawlix, your people on FCAP know what to do! As for the rest of you guys, how 'bout we circle the wagons at sixteen-thousand."]

After Peña gets a verbal confirmation from Myra Coulter on FCAP, Kati Connors on CAP, Colion Marceau on SEAD and Chet Kincaid

on CAS, 208 Thunderbird fighters remain in space as FCAP while a mixed bag of 96 fighters follow Jacob and Pena down—that being 48 Thunderbirds, 24 mixed Thunderbolts, and 24 of the B-Mod Cerberus.

After a few seconds of silence, while trailing the assault teams, Jacob pops on command freq, "You know, I can't believe that I'm taking a back seat to you, Dog! What's the world coming too?"

Peña chuckles at that, then, ["Get used to it, fucker!"]

"Oh, no-no-no! That's not what I meant, I'm glad it's you!"

["It is kinda weird swapping jobs like this."]

"When I was bricked for three years you impressed the shit outta all of them. Hell, you impressed the shit outta me!"

["Well, we think alike, dude. I dunno if that's a good thing?"]
Now passing the 100 kilometer mark, Pena asks, ["You're gonna drop 'em a Thin Blu from sixteen-klicks? That still the plan?"]

"Yup, we'll start with two from sixteen—twelve seconds apart. With three-tons of mass and the motor assists they should reach Mach-eight, but if they don't breach we do got other options."

["What if these things happen to pancake, hu?"]

"Then we'll try dropping 'em at two-hundred thousand!"

["I'm curious, how fast will they be going from that altitude?"]

"A static drop from a hundred and twenty-four statute-miles, well, I'm told they'll hit at least Mach twenty-six from there."

["That's reentry speed!"]

"An' with their ablative skin they won't slow down."

["Think it'll work at sixteen-k?"]

"My vote was for thirty-two klicks to start."

["I know what you're doin' here is experimental shit today."]

"Dog, we can't get close enough to MiDAR the site! We don't know the depth to the target. We don't know the constitution of what we have to drill through, rock or dirt, nor do we know how thick the overhead deck is? Reinforced, I dunno? Then we have no idea what constitutes the radioactive shielding! How thick or dense that shit is, is a mystery to us because, hey, they've been blocking fucking neutrinos! I mean, how do you block god-damned neutrinos?"

Peña laughs, ["They must've picked up on something from Dedede we missed...maybe tree bark or some freaky-ass leaves?"]

Jacob nods, "Probably right 'bout that."

With the three-assault teams pitching up from an 85° to a 45° decent, Jacob notices the YDF fighters launching from their base below them outside of Cooe, and from the small base at the mid-point along the coast, as well as from three islands north of the actual target.

With the YDF fighters spreading out, maintaining high speed at a low altitude, Peña laughs, ["Holy shit, you just may be right! They think we're stupid enough to try for a ground assault."]

"Yea, looks like they're gonna try to splash the Razors, but..." With Jacob thinking about it, it then dawns on him, "Ya know, I wouldn't put it past 'em using the one-kiloton warheads on their centipedes like on Yunga, what, back in twenty-three-nineteen was it?"

Peña laughs, ["The Nine-Fives would do that, wouldn't they!"]

"They're desperate. That's what I would do if I were them."

Peña sends out an alert for everyone to watch out for that.

With the assault teams pulling out of the dive, now flying nap of the earth, the CAP fighters pitch up to trail and cover them from above at 16,000 meters. At the same time the 72 YDF fighters from the base next to the City of Cooe, now swing around to follow the assault teams also from a low altitude. Then, as expected, the 72 fighters from mid island base, that went north, has joined up with the 48 fighters that took off from three satellite bases on the islands above the northern end of Rakiura.

Having also dropped to 16,000 meters over the three hot spots are the second set of SA fighters from the platforms.

Peña gets an alert and radios out, ["Okay people, from the CDF training base on the other side of the planet we have sixty fighters coming out to play, probably Djinn, but, if things go as planned, they won't make it here in time to make a difference. Remember, the YDF Anzu's are tight turnin' wiry lil' fuckers at or below Mach-one so don't fight their fight! Keep your speed up, keep your distance from 'em, and don't let their centipedes get inside two-clicks."]

The assault teams have now reached the midpoint of the island and are fast approaching the over sixty hidden multi-megaton booby traps that were set for them by the YDF. The SA assault teams are currently flying in between them, giving these "Bouncing Betty's" wide berth, but they are not making it obvious that they know where they are dug in. It's now up to the YDF fighters to lure the SA fighters towards the booby traps so they can get to the Razors.

With the YDF fighters stabbing at the assault teams in groups of twelve and sixteen, trying to get them to break, the SA fighters and Razorbacks stay together and simply shoot down the 1kt tipped

missiles fired at them by the Anzu model F51's. With no other options, the YDF now launch six of their Bouncing Betty's at the SA.

Racing straight up and accelerating at three gravities, Jacob notes, "These things are moving a lot faster than the old Betty's!"

With three of the weapons arching high over assault teams, and three reaching out for the CAP flying over the hot spots, all six are intercepted by a centipede—and go off prematurely on contact.

The six fireballs are too high up to affect the assault forces below them, and too far away from the fighters on CAP to make a difference, so Jacob asks Peña, "What's the yield?"

Peña says, ["Eight-hundred kilotons, so they're smaller!"]

Jacob nods, "These Bouncing Betty's are faster than the ones from four years ago. Looks like they traded yield for speed."

"It's not gonna help 'em. They should've went big!"

"I don't think the Cooee's would have appreciated that much."

This whole time, from when the assault teams hit the deck, a single Warthog has dropped in from space, and levels out above the northern end of Rakiura at an altitude of 16,000 meters, in a lazy orbit all by its lonesome.

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In the cockpit of the Warthog we have the youngest command pilot for the RRF, Jace Nieto Verdugo, a PFC3 who goes by the obvious call sign "Neato," yet another laid-back underachiever who found their way and purpose with the Annex; and as his WiSO for today we have ol' Zam, Frank Zamboni, parked in the seat across from him.

With all of the YDF Anzu fighters now throwing themselves at the assault teams who are currently turning away from their targets, and the top CAP dropping in to help keep the YDF fighters at a healthy distance, and another six Bouncing Betty's racing up towards the Thunderbirds on CAP over the hot spot targets, Verdugo says on the command freq, "Bulldog, this is Neato, ya'll ready for us to drop?"

As those six Bouncing Betty's get hit by SA Centipedes, each one blossoming in a 800kt fireball, Peña goes, ["Roger that, Neato. We got them busy on the deck, so you're clear to get on station. We really wanna see what Thin Blu can do!"]

"We're on it, Dog! Twenty seconds to release."

Zamboni looks up at Verdugo and goes, "Bomb bay is open."

The weapons they are going to drop here are just over six

meters in length, and that makes them longer than the standard dispenser pods, so the "six-shooter" pod was created just for them. Housing a rotary dispenser, this thing holds six of the new Thin Blu, massive ordinance penetrator bombs that were developed by Sandoval from a conceptual design by Paleo and Maggie—whose inspiration came from the Arch-Penetrator guns adapted to half of the Annex's Thunderbirds and Thunderbolts, replacing the 23-3 rotary cannons.

Code names are Thin Blu or TRDS, for The Real Disney Swish, the forward half of the bomb is simply two and a half tons of depleted Uranium penetrator rod that's followed by a one-kiloton micro-nuke warhead. A guidance and gravity-torque drive unit steers the weapon towards the target, and this is all topped off by two Centipede rocket motors. The first one is a detachable booster stage, and this is followed by a terminal decent-to-impact motor.

Verdugo brings the Warthog gunship to a dead stop, sixteen kilometers above the dark spot on the north end of Rakiura, and says to Zamboni, "Okay, Zam, this is your show! Weapons free."

Zamboni hits the terrain below them with a simple radar pulse and locates a flat spot near the center of the target. Locking it in, he then hits that spot with an ultraviolet laser used in adaptive optics. After collecting wind direction and speed from the distortion, he creates and uploads a high-resolution image marking the exact point of contact for the weapon in case the thing needs to go autonomous if it loses touch with the launch platform—that is if the active telemetry is cut because the Warthog was destroyed during its short flight...

But then, fat chance of that happening with the Anzu's busy!

Zamboni looks up at Verdugo and says, "Ready? Once I let this thing go we're gonna have Bouncing Betty's climbin' up our ass."

As they feel the mild shockwaves from distance nukes start to pummel the ship, Verdugo smiles, "It's what we're here for, babe!"

The first weapon drops out of the bomb bay like an anvil, so Verdugo announces, "TRDS away! Thin Blu two in ten seconds."

As this weapon drops its tail swings up and, once stabilized, the booster motor fires, at the same time the rotary dispenser in the bomb bay spins 180 and stages the next weapon for release, and with the first Thin Blu now fast approaching Mach-3, Zamboni counts down, "Five, four, three, two, one...Let's get outta here!"

The moment the second bomb is released, Verdugo kicks the Warthog into a spine crunching five-gravity vertical climb. This whole time, that is two seconds after the first bomb was let go, five Bouncing Betty's were launched at their ship. Coming at them from hidey-holes over thirty kilometers away from the target, they will never catch up to

them, but Verdugo fires five Millipede missiles to intercept them just the same. Then, in a 'why the fuck not' moment, he fires his one plasma/particle turret gun at the nukes just to see what it'll do.

The particle beams fire in rapid succession, hitting each of the Bouncing Betty's. They all go off prematurely, and way before the Millipede missiles could possibly intercept them, so Verdugo redirects the missiles towards the Anzu fighters as he again fires particle beams at three more Betty's launched towards their first bomb.

It takes all of twenty-three seconds for that Thin Blu to hit the target, the terminal rocket motor having pushed its velocity up to Mach-7.8 at the point of impact and, without breaking stride, the thing punches down through the surface of the hilltop as if it were a stage prop cobbled together out of chicken-wire and paper mâché.

From a three ghost-droid recon team, positioned only four kilometers away from the point of impact, along with their six cloaked micro recon droids hovering at strategic locations above and around said target, they transmit back to Peña, Jacob and Zamboni some fantastic video when it goes off.

The real time video feed is spectacular, yes, but 100k frames per second slowed down to 60-fps makes what they analyze hours later eye popping to say the least. At this speed one can see a vapor tail shoot up from the hole being punched into the hilltop that fills the low-pressure cavity trailing the bomb. At about 100 meters down, when the resistance to the penetrator rod gives way to open space, without some programmed millisecond delay a signal is sent to trigger the one-kiloton warhead early, before the thing exits the excavation tube into the top floor of the pit and warhead production plant.

But, as with 1kt horseshoes and hand grenades, who cares?

The plant covers some twenty-two acres and is six levels deep with an open steel-grated floor between each level. Now, Plutonium reacts with Oxygen, and this is bad for pit production, so the space has been pressurized with 1,100 millibars of 100% Helium. This is so that in the event O² is accidentally released from the rebreathers on the workers bunny suits, or from the breakdown of lubricants and solvents in the machinery and robotics, those molecules and free radicals will drop like rocks straight down through the grated flooring towards the maintenance and support level on the bottom floor.

Even though 35% of the one-kiloton warhead blows up and out of the excavation tube, making a spectacular conical jet of dirt and stone surrounding a fireball that shoots out from the top of the hill, the 65% that blows into the facility does the trick and the entire plant is pulverized in absolute terms. First by the heat from the fireball, then by overpressure being the cherry on top.

From the recon droids, they record that the pressure doors from the access tunnels close to this site were blown out by the blast, so when atmosphere mixed with O² rushes back through those tunnels and displaces the superheated Helium—combustibles then combust! When the next Thin Blu drops through that same hole and ploughs into the floor of the lowest level, when it goes off the entire hillside puffs up then collapses into the cavity where the plant used to be.

Fighting the five-gravity climb, Zamboni reports on command freq, "Dog, looks like Thin Blu came though, as advertised!"

Peña goes, ["Thanks for the love, Zam! Neato, how 'bout ya'll head up to FCAP and hold at two-hundred clicks for the now."]

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With Jacob and Peña diving down to pick up the recon team, Verdugo radios, ["Hold at two-hundred, roger."]

As they level out over the forest to close on the site, and with the fighters on CAP above the three hot spots swinging around to cover them, and two of their SEAD Thunderbolts dropping in for the actual pickup, Peña says to Jacob, ["Buzzard, I don' know how you do it, but your damned crystal ball fucking nailed it again today."]

Jacob blows it off, "Maybe it's just dumb luck?"

["Luck, my ass, how do you do it?"]

At that very moment, through the IFF a stand down alert is broadcasted by the CDF to the YDF forces over Cooe, and as the sixty fighters from the other side of the planet acknowledge the order along with the YDF, Boxter comes on line, ["G'day, Buzzard Chow."]

Jacob responds by calling Boxter by his code name, "Well, if it ain't ol' Box Cutter, how the hell are ya?"

["For me it's early, and the proceedings on Cooe have been vastly entertaining over my...morning pumpnickel and café."]

Jacob smirks, "Yea, it's been a blast!"

["Yes, it has..."] A video of Boxter pops up to accompany the audio being transmitted, ["Now, on a secure line, I have to say I'm looking forward to seeing you with my niece on the fourteenth."]

Jacob nods, "From the sound of it, it's gonna be fun."

["Yes, and as big as this event is, Michelle insists on casual merriment over stodgy regalement, and I can't blame her!"]

Jacob finds it uncomfortable to admit to this, and it shows, "I'm actually looking forward to it."

Boxter blinks, ["That's...actually good to hear!"]

With Peña giving orders for their forces to disengage from the AO, Jacob asks, "Since we're getting an egress without a fight, I kinda get the feeling that you've got something on your mind?"

["Perceptive, as always!"] Boxter touches his face and says, ["Since what we have going on is coming to a swift end, probably swifter than we can imagine, my curiosity is getting the better of me, and I thought it might be advantageous for both of us for me to share my thoughts with you while you are still in the AO!"]

Jacob wonders, "Okay, I'm game?"

["How many of those...thingies you still have in your quiver?"]

"Why do you ask?"

["Well, Jacob...now that you're marrying into the family we do need to get used to calling you that. I happen to know you didn't test those MOPs before today and, me being aware of the proposed testing regimen and parameters, always nosey, and since those things are comically...Tex Avery direct, I feel like a kid in the candy store!"]

Jacob recoils slightly, "Wha'...are you serious?"

["Indubitably...shit serious."] Boxter smiles and points down, ["Below you on Rakiura, the three hot spot *la ruse* for today, we've been waiting for you, and were ready to film and collect data points, so imagine my surprise when you nailed the actual pit plant!"]

"You know we were lucky to find it."

["As the saying goes, third time's the charm!"]

"You were expecting us to hit the other three, right?"

["I didn't quite understand the point of the assault teams until I saw the Anzu's flocking around them."]

Jacob nods, then, "Okay, I have four of those bombs left."

["And I've three facilities that are...useless otherwise."]

"When can you evacuate them?"

["When ya'll popped in overhead, the crews skedaddled."]

"So, there's nobody there now."

["Not a soul."]

Jacob gnaws on this and asks, "What can you tell me about the three sites to make me wanna drop on 'em?"

Boxter shrugs, ["The Co-op did gift-wrapped them for you with a little bow on top, and it took you long enough to come collect."]

Jacob laughs big at that, and as he nods with a smile he asks, "Point made, so what would we be dropping on?"

Boxter perks up with, ["Well, the one in the western part of the island was dug in under a ancient volcanic deposit, or pumice have you, and the one in the east is buried two-hundred meters below a simple gravel and dirt backfill."]

"Reinforced roof?"

"One meter only. A simple support structure!"] Boxter then points up while saying, ["The central *hot spot* was purposefully dug out from under one-hundred meters of solid granite so, the question I propose to you, Jacob, is...are you as curious as I?"]

Jacob thinks about it for a second and nods in agreement, "Yea, Box, I think I'm curious too."

["How 'bout we get Mister Zamboni online!"]

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