

LCTN: APÓN-PUP-B2B, (Calabash Nebula)
CORD: IRAS8-P7399X98U8 (1,534pc from SOL)
DATE: 2198ce-APRIL-1-SUNDAY
TIME: 19:18zulu (local 41:50mst)

Charles has been waiting for this day now for ninety years...

Dolphin Reel is a binary system of two tidally locked planets, Sashi and Imi. They are almost exactly the same size and mass, and their orbital barycenter point in space is pretty much dead center between the two. They orbit around the red dwarf star, *Rouge Deux*, which is the smaller of the local stellar binary pair of it and the notably larger red dwarf, *Gros Rouge*.

Gros Rouge is actually a borderline K type star, but Charles can only guess at its surface temperature, and since it's very red to the eye he classifies it as a red dwarf by default. The thing he can tell at simple face value is that Rouge Deux is probably old and Gros Rouge, with its spastic solar flares, fitful magnetic prominences and high metallic content has got to be a much younger body. They've been together for tens or maybe even hundreds of millions of Earth years but, one thing is for certain, they didn't hatch together. Then when you really think about it, Rouge Deux may be the older, stable and boring one but that's kind of a good thing.

From the city of Ipet Hah, on the side of Imi facing Sashi, Sashi has an angular diameter of 2° in the sky. Rouge Deux, with an angular diameter of 1.5° is currently being eclipsed by Sashi, which is common, but Gros Rouge is nowhere to be seen! Dolphin Reel has an orbital inclination of 6° to Rouge Deux, and its orbital plane has an inclination of 12° to Gros Rouge, and from Imi you would usually be able to see at least a slice of the zany younger brother from a different mother but they are currently aligned four in a row.

Not exactly unheard of but this event is rare.

Dolphin Reel has a year that runs precisely 1,008 Earth hours

and this consists of 12 days of 84 Earth hours each—making their months and days interchangeable. To put this in perspective a year here takes 42 Earth days to complete with a month/day that spans 3.5 Earth days each—parsed into three 28-hour sleep cycle days. The year for Dolphin Reel may be a bit short but the stellar binary year between Rouge Deux and Gros Rouge runs about 180 Earth years.

Charles has looked for some harmonic in the orbital dynamics in this crazy system but nothing makes sense to him however, the tiny planet that orbits close to Rouge Deux, called Nascar, has a year that tops out at 28 Earth hours. This is a three to one ratio against the Sashi/Imi day so maybe there is a correlation there somewhere?

Anyway, if you're interested in astronomy then this system is a dyed in the wool, cock-blocking pain in the ass. When Charles first got here the very first stellar observation he made was of the M46 star cluster, and that was dead center in the night sky. From Earth M46 has an angular diameter of about 23-arcminutes, but from the far side of Imi the thing takes up a whopping four (4°) whole degrees.

That's eight times the width of the Earth's Moon in the sky.

Every 42 Earth days, Charles sets up on the dark side of Imi, out of direct reach from both Rouge Deux and Gros Rouge, and takes what images that may interest him and most of those are timed exposures. Over the years, little by little M46 moved away from the center of the sky and finally vanished from sight by cycle 499. It was on observation cycle 522 when he finally made some decent images of the Calabash Nebula as well as the planetary nebula, NGC 2438. That last one with its faint double halos appears to be notably closer to Imi than from Earth, but the Calabash is shockingly up in your face. When you pull your focus in short on the digital photographic plate and hold it long enough in a very dark sky—the thing leaps out at you with structures and detail unattainable from Earth's observatories.

One of the problems with astronomy here is that light from Gros Rouge always finds a way of bouncing off the faint nebula that surrounds this system—and at just the right angle to encroach on many of Charles' most hopeful timed exposures. This allows for maybe a 110° to a 130° slice of the sky to work with but, tonight, which is actually noon here on Imi, is observation cycle 782, and this night sky is especially dark with the double eclipse. Charles has all 180° of the sky available to him, which is a first in 90-years.

But he only gets it for 35-minutes.

What is comically absurd is that he has all of his telescopes, that being his hard mounted two-meter wide Maksutov-Cassegrain, his 32" Ritchey-Chrétien, and beloved Celestron 14" Schmidt-Cassegrain all trained on the same faint star—dead center right above them.

One of the side jobs Charles took on is teaching astronomy to anybody who would be interested and the class he gives, including the workshop taking place right now, is as popular as ever! He had to parse the seats in thirds with one third being actual human students born of Imi, one third of Nefer Key students born on Sashi, and any adult human and/or Nefer Key who has an interest in it.

There is a waiting list for sure, but the kids are priority.

They are currently set up on a flat mesa, two kilometers from sea level and, much like the Tepui, the table-top mountains in South America, they are cut off from the forest and wildlife below. Ipet Hah may be on a continent that has been rendered safe for humans to live but the other four continents are still pretty dangerous—which is why they have a battalion of troops stationed up here for guarding the site as well as for advanced scout and stealth/recon training.

A deep blue light emits from outdoor lamps that are low to the ground, necessary for lighting the pathways and not throwing your eyesight out of whack, and with this Charles is able to find his way back to The Bunker, an astronomy office-complex. Here he steps inside an expansive workroom whose interior is also bathed in the same blue light. In it are dozens of two-seat workstations occupied by pairs of students and many of them are mixed human and Nefer Key. Here they can remotely control, that is traverse and elevate, focus and alter the settings to their assigned hard mounted 12" scopes. They could do this from their classroom in Ipet Hah but, the thing is, coming here and doing it hands on is the fun part of the graduation exercise.

The barbeque and camp out that follows is a bonus.

Normally Charles would be going around and small-talking with his students but Yvette, his Nefer Key wife and a senior leader in their cultural hierarchy, is doing that while he steps in to monitor his own personal project he has been waiting decades to run.

In walks Luke, his 38-year-old son and the last hurrah with Rachel before they separated, and he is accompanied by his wife, Rachel Kay, a daughter of Jason. Rachel is obviously with child, and as they approach Charles, Luke says to him, "Hey Pop! I guess you want to know who was in the shuttle that just landed, right?"

"Read my mind, Luke." Charles turns to Rachel and smiles, "Hey, Rachel! Is the bun still squirmin' in the oven?"

Rachel nods and, "Yep, she's kickin' up a storm today."

Charles looks to Luke, "Let me guess, Luc, Lilith an'...Maat?"

Luke just stares at him, "Damn, you're good!"

Charles shrugs, "I know what it's about."

"Gonna clue us in?"

"You and Rae can sit in." Charles motions for Rachel to hand him the rolled design drawings in her hands "Let's see!"

Rachel hands them over and says, "We could still go with the original seven-mirror config, but this is the new segmented hexagonal design we told you about. They'd be a little easier to make than the round mirrors but with these we'll get more real estate."

Charles has quickly scanned the drawings, and as he nods with approval he asks, "Think the Glaziers could pull this off?"

"Thirty-six mirrors...actually, they'll take less time to polish."

Luke adds, "The telescope could go up a lot faster."

Charles reads on the drawing, "Keck mount?"

"It'll give us a full ten-meter aperture."

With a nod, Charles rolls the drawing up and hands it back to Rachel, "The trusses and bearings would be lighter."

Rachel asks, "You good with this?"

Charles shrugs, "Guys, this is your project, not mine."

Luke wonders, "But you're—"

"I'm your father, not your boss. I say run with it." Charles then points in the air saying, "And if a hex-mirror is off it's a whole lot easier to un-fuck that than the big-round ones."

Luke nods, "That it would."

"Hey Rae, Luke!" Yvette steps up, gives Charles a quick kiss then asks him, "You sure it's not burning this time, hon?"

Yvette, like most Nefer Key, when they are adults you cannot tell their ages except for their tongues. After a few thousand years the tongues start to turn gray and get lighter with each millennia, and Yvette's has just turned dark gray. Then, where most Nefer key have naturally cut/athletic figures, like Lilith, Yvette has had three litters of children so her figure is curvy by comparison—and Charles likes that.

It's not close to Claudia or his ex, but it makes them popular.

"It's smokin'." Charles kisses her in return then, "Like you!"

"I hate waiting." Yvette grabs his shirt and pulls him in close, with that 'oooh baby' look, but she says loudly in his face, "Feed me!"

With Luke and Rachel laughing at that, Luc, Lilith and Maat have already entered the bunker and step up to them with Luc saying, "For once you weren't hard to find!"

Charles shrugs, "If I knew you were comin' I would have hid." He thumbs back at the screens while turning towards them, "This is actually auto-running on its own."

Lilith asks, "Pictures of home?"

"What used to be home." Charles points to the conference room in the back, "Let's go back there and talk."

As they all start for the conference room, Luc and Maat respectfully nod towards Yvette, with Luc saying, "Madame."

Yvette points down and corrects him, "Here, it's Yvette."

With Luke, Rachel and Charles entering the conference room, they are followed by Luc, Lilith and Maat. When the door is closed and the normal lights go on, Charles looks like he has reversed aged by thirty-years. Compared to his son you'd swear they were brothers.

Maat speaks up first, "We think they're heading for war."

Charles confirms with a nod, "In the Hyades, yes."

"The United Nations Security Council approved of the MAD last week, so it looks like they'll be going in for sure."

Charles shrugs, expecting that, so he looks to Luc and asks, "And you still think we should have a response to this, really?"

Luc shakes his head and says, "Yes, we should!"

Charles almost rolls his eyes with, "Why?"

"Because what they're doing is wrong?" Luc then gives him a goofy face followed with, "Like, d'uh!"

Everybody laughs at that but Charles has his serious face on, "That would be from a perspective. That is from your perspective. Look, there are about ten hot zones surrounding Earth with the biggest being Kapa Orion and the Hyades. They're all gonna go up in flames eventually, but Kappa Orion is kind of a ways off. Mark my words it will blow up, and I did tell ya'll that the Hyades was gonna be the first to go hot, but..." He shrugs, "I'm just the village-idiot-savant here."

Lilith knows what she is about to say is going to be countered by Charles, but she says it, "What the UN is doing is stupid."

"Well, what the UN is doing is what they are obligated to do!"

Luc says, "I don't get it?"

"You got all those little shit cooperatives being gobbled up by corporations under the table, so what do you expect? That new one, the Steel Chain Cooperative, they're out to consolidate everything and they've even weaponized eminent domain as—"

Luc wonders, "Can't anybody just tell 'em, no?"

Charles huffs a laugh, "I wish it were that simple."

Maat asks for the benefit of Luc, "Didn't your contacts confirm who you think is funding both the insurgents and the pirates?"

Charles nods, "Yea, the SCC, they're playin' both sides."

Lilith wonders, "Why would they do that?"

"Market manipulation? Look, they're basically stealing from themselves and this thins supply and makes the market prices go up. The pirates, people that *they* control, those guys are from a place called Taiji and they drop what they swipe into the black market which means the SCC is double dipping. Their losses are covered and their cut from Taiji is under the radar. What's on the black market is way above market value to places like Kappa Orion who are sanctioned out the ass. There are dozens of places out there that have crippling UN embargos on them, but the UN's hands are fricken tied. They can't stop anyone from delivering to them, so the MAD will give 'em teeth to cut 'em off. Bottom line, the SCC is pushin' hard for this war an' they want it real bad. This'll change the political landscape in their favor."

Maat adds, "Don't forget, they are funding the insurgents."

"Purdy much!" Charles puts his hands out, "Look, everyone knows the SCC has got a hard-on for this but...prove it?"

Luc shakes his head, "I don't like this."

"Don't take offence, Luc, but who in the fuck cares what you think?" Luc, is astonished, and while opening his mouth to protest, Charles cuts him off, "You gave them that space to do with as they please so they are doin' exactly that—what they please. The dumbest thing you can do now is to stick your nose in their business."

With Luc stewing over that, Lilith asks, "Hate to ask, but is there anything we can do?"

"Yea, simply sit back an' pop a suds and watch the fireworks!" He then points to her and, "MG, this is the perfect laboratory for you to learn by because this will be a war of attrition, and from this little workshop of horrors we'll be able to study their tactics, logistical failings and screw the pooch with their dumb-ass doctrine!" Charles turns to Luc, "What we learn from them will get us ahead of the game. You always want to be ahead in this game, Luc."

Luc reluctantly says, "Then we're to do...nothing."

Charles smiles, "The best thing in the world we could do!"

There is a knock at the door followed by Yvette calling out, "Chucky! Your spot has appeared!"

Charles shouts back, "Awesome! Be right out!"

Luc nods towards the door, "I know you want to get out there. You've been waiting a really long time for this."

"Okay, cool, but before we go..." Charles turns to face Lilith, "MG, you are now LG. You have third Army."

Maat hands his two, three-star bars over to her while saying, "Congratulations, Lilith." He nods big and, "Lieutenant General, Lilith. I like the sound of that!"

In shock, Lilith blinks and says, "Third army is yours!"

"Yea, well, now it's yours!" Maat puts his hand out to Charles who hands him his two, four-star bars, "His job is now mine."

Charles slaps them in Maat's hand and asks Luc, "You okay with this, dude? I know it's kinda sudden, but they both earned it."

Luc, wondering what to say, "Aaah, it's outta my hands?"

"I'll talk to the Council for ya. They'll see things my way."

They pile out of the conference room, and in the blue light they stop at the four large flat monitors at the head of the workroom where Yvette points out to Charles, "There it is! You finally got it!"

Charles leans in and huffs, "Well, I'll be damned."

Luc jokingly says, "You gonna tell 'em where we're at now?"

Charles kisses Yvette and turns to Luc, "I could, but I knew exactly where we were decades ago around cycle five-fifty. In fact, I knew the vector towards this system by a quarter degree of angular diameter the first night on this plateau ninety-years ago."

Luc swallows hard, "And you told them."

"No...I haven't told them shit."

"That was your mission!"

"That was *their* mission. I had a different mission in mind." Charles then points out on the screen, "Here is Rigel, the first star I identified. Here's Betelgeuse and Naos. This is Sirius A and here..." Charles then points to a little faint blemish on the screen a pixel wide, "By Sirius, is Sol. It used to be my home but...this is home."

With big eyes, Yvette says, "Well, *that's* good to know!"

Luc mentally pulls back and looks deep inside himself while Luke, Rachel, Lilith and Maat are congratulating Charles for capturing this pixel on the screen, and with Yvette giving Charles a huge hug and fawning over him because of something that seems trivial, Luc reaches back to when Marcus was with Prima—then it hit him.

When there is a gap in the celebration over a pixel, Luc gets Charles attention and simply asks, "Why?"

With everybody having stopped to listen, Charles asks Luc, "Remember when I first got here and we talked about, what I called, Segementary Lineage? Remember what that was about?"

Luc nods, "Yea, I do."

Yvette asks, "What's that?"

Luc says, "As I recall, the enemy of my enemy is my friend."

Charles throws out, "It goes a little deeper than that."

Lilith wonders, "I'm curious."

Charles looks to Yvette who shrugs, so he goes, "Okay, it's referred to as the Principle of Segmentary Opposition. A dead-nuts on perfect example of this is from my family! My brothers and I fought constantly, but at family gatherings we would bind together and fight with our cousins. One day while playing football in the neighborhood a fight broke out, where my cousins and my brothers and I, well, we teamed up fought the neighborhood kids."

Yvette is laughing, "Really?"

"No shit! I loved my brothers, even though I could not stand being around them. I hated my cousins but, by god, they were family so if anyone fucked with them—then they were fucking with me too." He points to Luc and, "The problem with the Nefer Key is that the concept of *tribe* does not translate to a global population well. There is very little here that can be compared to human familial dynamics.

Maat adds with a nod, "There is a difference."

Charles then gestures to all three Nefer Key, "Just in case we didn't clue you in, you three, to us—you three are family to us."

Noticing Lilith almost in tears by that, Luc says, "Thank you?"

Charles laughs, "Not to be an ass but you don't say *thank you* to a fact! You are family." He looks to Luke and Rachel, "Right guys?"

With those two nodding in agreement, Charles then thumbs over to Maat and rolls his eyes, "For clarity, he's a cousin!"

Maat quietly laughs, "Kiss my what?"

Charles points to him and, "See!" He then turns to Yvette and says to her, "The point is that Luc and I have a standing agreement. You do not go talk to anybody from Earth. If you have a beef, I do the talking. Reason being is that I'm Charles Washington! They'll listen to me, and if they don't dig it then no harm done. If Luc goes puts his thumb on the scale they'll be like, 'Oh, hell fuckin' no!'"

Yvette asks, "Even if they were at war?"

Maat points out, "Congrats, you just unified them."

Yvette looks to Luc and asks, "This is your agreement?"

Luc cringes and sheepishly nods, "Yea."

In thought, Yvette blinks repeatedly then, "I approve."

With Yvette turning to ask Rachel and Luke to show her the plans for the telescope they are building on the plateau, Charles suggests to Luc, "You are staying for brisket and brew, right?"

"Sure, why not?" And with the two of them watching the pixel become brighter on the screen, Luc asks, "So, Chuck, if you haven't said anything to them, I kinda wanna know...what is your mission?"

Charles starts laughing and, with his hand he motions back and forth between them, saying, "To make this work."

Luc shakes his head in wonderment and, actually surprised by these revelations, he asks, "So...I'm family, hu?"

"Yea, ain't that a hoot an' a half."

000001011000