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## Selling Short

The freighter *Coronado*'s conference room had a hardwood floor and leather chairs. Reflected light smeared over the polished ebony table as Markus sat. No one else had arrived yet. His hands slid over the wood, and six hundred yards below the floor the ship's fusion drive rumbled. He smiled a giddy grin. New Liberia, his home, five space habitats orbiting Saturn's moon Titan, lay two hours behind the ship. He lived his own life now, not the one his parents wanted him to live.

Unfamiliar bodies and voices flowed into the room. The chair to his right squeaked, and he turned to see Raveena. "Hi, Markus," she said. "Welcome aboard."

"Thanks." In the flesh, she looked like the avatar she'd shown in his Virtual job interview a week before. South Asian, Raveena had a long narrow nose and thin lips. She wore a navy-blue jumper and straight black hair in a pageboy cut.

"Settled in?" she asked.

He nodded, and glanced up as more people entered the room. "I've been in my cabin a few hours."

"All unpacked?"

"One of your robots unpacked my things." The ship had fifteen robots, like pygmy centaurs with tiger-stripe plastic skin, three feet long and two feet to the shoulder. They performed service and maintenance tasks; the one that helped Markus had climbed the walls on its gecko feet to hang his clothes bags.

"You must have brought a lot, if it took you so long."

"Not really..." Sweat trickled on his nape. In his cabin, he'd installed and primed a censorship program Captain Garcia had purchased: *Sun, helium, Venus...* He couldn't tell her that.

"Have you met everyone?"

"In Virtual, yes." Eight other people sat around the table, and chatted amongst themselves. Sonoma, a pale woman, talked with Naseem, a slender Arab. The latter glanced at Markus, with a look his ancestors had fixed on black men during slave raids centuries ago. Markus turned away, but watched Sonoma through one of the ship's cameras. She had high cheekbones and straight red hair. He'd

never seen a woman like her. She leaned toward Naseem, and parted her full lips in a shared laugh. “Some people don’t resemble their avatars.”

At the table’s head, the Chinese man, navigator Xi Qen, and Annike Olson, the financial officer, flanked Captain Garcia. The captain laughed at someone’s joke, then stood and cleared his throat. Conversations died down. Garcia stood six-feet-two, with brown eyes under thick eyebrows. His van dyke beard emphasized his jaw. “First, has everyone met our new officer trainee, Marqus du Bois? We hired him at New Liberia.”

Nods ringed the table. Olson folded her arms. She’d been aloof in his interview, and he couldn’t tell why. Garcia looked at him and raised an eyebrow. –Say something,– the captain said privately.

“I’ll administer the ship’s computer system,” Marqus said. “I look forward to working with you.” He couldn’t think of anything else, and closed his mouth.

–Thanks, Marqus,– Garcia said. “The second order of business involves our destination and cargo.”

Murmurs bubbled, and Raveena leaned forward. “Why *did* you refit the *Coronado* with insulation? Why are we taking methane to colonies around Neptune? The profit margin’s thin.”

Garcia grinned. “I’ll be happy to tell you everything.” He looked around the table. “But first, you have to consent to running your outgoing messages through a censor program.”

The murmurs doubled. “Censorship?” Ludmilla said. Glitter on her eyelids flashed when she blinked. “We have a right to privacy!”

“Your right to privacy ends where ship’s security begins,” Garcia said, but then softened his voice. “We won’t record what you say. The program will flag messages containing certain words, and I’ll review only those messages before they go out. I don’t want to do this, but if certain parties in the solar system knew our plan, we could be in trouble. You’ll have to trust me.” Marqus sensed everyone agree.

“Now Raveena, you asked why we’re hauling methane to a gas giant? Simple. We’re not. I sold it before we took delivery.” Garcia’s gaze darted from face to face. “Everyone get up to speed on terraforming Venus.”

The ship’s network fed thoughts to Marqus like a forgotten memory returning to mind. Before humans arrived, hot carbon

dioxide smothered the planet. To terraform Venus, people first had to remove the atmosphere. He superimposed a hologram of the planet over his real vision. Venus appeared as a fuzzy, striped yellow ball above the conference table. It hung in the shadow of a rotating disc eight thousand miles across. Dubbed the SPF-Infinity, the disc blocked sunlight and allowed the atmosphere to cool. Humans lived in cities along the disc's rim. When cold enough, the atmosphere would rain on the surface, and then freeze into a dry ice shell half a mile deep. Unaided, though, cooling would take centuries.

To speed the process, the Venus Climatology Ministry had built a cooling tower, Beanstalk-1. Five hundred miles high, the tower jutted through Venus' clouds. Marqus looked for it, and rotated the Virtual hologram until the tower's tip, marked by a beacon, came into view. Though huge, the cooling tower operated on a simple principle: liquid helium flowed down the tower's inner wall, and near the surface atmospheric heat turned it into gas. Helium vapor then floated up the tower's annulus, radiated its heat into space, and became liquid again to restart the cycle. Beanstalk-2 was under construction, and radicals in the Venus parliament demanded a third.

"It all comes down to helium," Garcia said. "There isn't any in Venus' atmosphere, so the government has to import it. Some helium always leaks out, and the second tower will double demand. Now, when demand goes up—"

The planet's image vanished, and up popped a chart of helium prices at the market in Ishtar, the largest city on SPF-Infinity's rim. So far this year, the price had gone up five-fold; it now traded at two thousand sols per ton.

"Two thousand sols a ton!" Garcia said. "The *Coronado* can carry 180,000 tons. Do the math!"

Marqus had hired on for 2.0% of the ship's profits. His jaw sagged. He would earn over seven million sols! He could retire after one journey! They all could. Naseem grinned, and Sonoma glanced at the captain with a satisfied look.

"It's not so simple," Xi said. Concern marred his face. "The price is up because of the Preservationists. Ever since their hard-line faction took over..."

"They'll boycott the *Coronado*, and each of us, for the rest of our lives," Raveena said.

Heinrich palmed his shaven, tattooed scalp. “We won’t have a rest of our lives. Between here and Venus, bulk helium is only found in Jupiter’s atmosphere. Surrounded by Preservationist settlements on its moons! If we try to take helium, they’ll gun us down!”

“Another gas giant?” Naseem asked. “No, the Presers could intercept us on the way to Venus.”

Marqus’ eyes went wide, and he blinked at the captain with sudden respect.

“You’ve all missed it,” Garcia said. “We’re going to the sun.”

“We’ll burn up!” Heinrich said.

Garcia shook his head. “That’s why I refitted the *Coronado* with ceramic insulator all around the hull. It’ll stop radiation and slow heat absorption. We’ll have two weeks before the ship’s interior gets too hot.” His smile had a manic edge. “We can mine helium from the sun.”

Ludmilla’s brow furrowed. “The photosphere is 10,000 degrees, and it gets hotter further in!”

“We won’t go further in,” Garcia said. “There’s enough helium outside the photosphere for us to fill the hold in nine or ten days. The gas out there, in the chromosphere, is also less dense, so it’ll be a gentler ride. It can be done.” He leaned forward, fists on the table. “This will be our most profitable trip ever.”

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The ship accelerated at point-two gee, enough to keep Marqus’ soles on the deck. New Liberia’s spinning-wheel space habitats soon faded from naked eyesight against Titan’s orange clouds. Abstractly, he’d known New Liberia was insular and isolated; he’d seen how tiny it was from a distance in Virtuals; but seeing it for real, as an image derived from photons reflected off atoms and not neurons induced to fire within his visual cortex, made his cheeks clammy. Even if he went back, he’d never think of New Liberia the same way.

The *Coronado* had filed a flight plan, destination Neptune, with a gravitational slingshot around the sun to gain more speed. In his mind’s eye, Marqus saw the flight plan, a blue line, turn yellow as the ship crept along it. At the sun, their true flight plan, a red line, curled off and wound itself around Sol. It wouldn’t be easy—the

orbital insertion into the sun's chromosphere required the *Coronado* to decelerate at three gees for a day and a half—but the ship could do it.

Should he call his parents? Mother would be worried, but Father would try to put doubts in his head. *Those ofays and oreos will never treat you as an equal*, Marqus imagined his father say. He had to prove himself first. He got to work.

The prior computer administrator, Lorelei, had left the ship six months before. The public memory had grown sloppy since then, littered with file fragments and backed up behind schedule, if at all. Between cleaning up the computer system and absorbing technical manuals, he worked late the first few nights. When he woke, though, deep in his third night aboard with the lights in his cabin still on and murky thoughts of transmitter hardware in his mind, he knew he had to do more than work.

So he sought out his crewmates. Though he felt uneasy at first, the crew's friendliness showed him most people didn't fit into stereotypes. He liked Raveena, despite her fondness for martial arts and role-playing Virtuals with dancing elephants and six-armed blue gods. He played chess with Heinrich and racquetball with the captain. Ludmilla introduced him to golf in Virtual. He felt foolish at first, in long pants and spiked shoes, but legends of Tiger Woods and Albert Nkomo buoyed him. By the eighteenth tee, he wanted to try again.

The person he most wanted to meet, though, was the least accessible: Sonoma. Her hazel eyes made his heart pound and sweat meander down his back. He told his software assistant to calm his heartrate and deepen his voice when he met her. As soon as he next saw her, though, he felt certain she saw what he'd done and she'd think less of him for it. He stammered through the conversation, and walked away with hot cheeks. He wondered if his mother were right about white women's witchery.

He avoided Naseem, and both Xi and Olson remained aloof. The navigator spent his free time in his cabin. The whine of precision tools and the sweet stink of hot polymers sneaked into the corridor.

"What's his hobby?" Marqus asked Raveena as they passed Xi's door.

She shrugged. "He tinkers. He never socialized much, but he's been a hermit since his wife left."

“Lorelei?” he asked. Raveena nodded. “Why’d she go?”

“She became a Preservationist. Filed for divorce and left for Callisto. And she took their daughter, which bothers me the most.”

“How so?” Marqus asked. “I don’t know much about Preservationists.”

“They think human beings are a cancer on the Solar System,” she said. His software assistant told him cancer was a disease. “It’s a bad enough life for an adult to choose: a tiny apartment and meditating on the beauty of ice and rocks all day. Inflicting that on a child....” Marqus felt sudden sympathy for Xi.

Olson, on the other hand, played a strong role in the ship’s social life, but Marqus felt small whenever he met her. Late one night, he stepped into the main corridor of the crew deck and almost collided with her as she jogged.

“I’m sorry,” he said, and shuffled to the side.

She jogged in place. Her sweat masked the dead odor of white people. “Don’t mention it.” Olson’s blue eyes stared without seeing; her software assistant had spoken through her mouth. She took a step.

It had been five days. He had to speak. “Ms. Olson?”

Her body turned. “Call me Annike.”

“Have I offended you?”

“No,” came from her mouth.

His father, face stern, had told him he’d come crawling home. Dread filled Marqus. “Do you dislike me because I’m black?”

Annikе stopped jogging, and muscles flowed in her face. “What!? What gave you that idea?”

“You don’t want me on board. I don’t know why.”

She shrugged. “Marqus, it’s nothing personal, but we shouldn’t have hired you right now. We don’t need a sixth officer trainee. You’re not worth the cost.”

“Your computer system’s a mess—”

“You worked for New Liberia traffic control, right? Computer glitches could crash ships. Our system’s good enough. I’ve handled it for six months. Pardon me?”

He nodded. Her face reset, and she jogged away. Her body veered around a robot carrying a laundry bag on its back. It glanced at her with dotting eyes. He watched the small of Annike’s back, where sweat darkened her gray sportbra, until the curving corridor took her



out of sight. His chin lifted. They didn't need him? He'd prove her wrong! He belonged on the *Coronado*. He knew it.

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On the twelfth day out from New Liberia, the ship accelerated past Jupiter. Sol lay a week away, and it looked to be a long week.

A news item crossed the solar system. The Presers demanded a ban on all helium deliveries to Venus. They weren't bluffing, either. The Presers had an outpost on Uranus' moon Desdemona. A warship from the outpost chased a helium harvester leaving the gas giant's atmosphere, destroyed the harvester's fusion drive, then arrested the crew. The Venus Defense Ministry launched a squadron on maneuvers to the asteroid belt. Helium's cash price jumped to 6872¼ sols a ton, and the futures contract for next-month deliveries broke six thousand.

Garcia invited the crew to the conference room. Robots circled the room with bottles of rhiesling and pinot noir. Marqus smiled wide to jolt their pleasure circuits each time they filled his glass. Virtual vases with yellow hydrangeas stood around the room. Dance music played in the crew's heads, and a few crewmen's bodies jerked to the rhythm. "Come celebrate! We're rich!" Garcia made avatars appear to expand the crowd, and mingled with a glint in his eyes.

After a while, Marqus talked with Raveena while she drank. "The captain's excited," Marqus said.

"His potential profit is a half-billion sols. I'd be bouncing off the ceiling." She held his gaze for a moment, then looked away.

"So why isn't Annike happy?" She stood at the doorway, her back to the jamb, and talked with Naseem and Sonoma. Maybe now he could talk to Sonoma. Marqus went over, and Raveena followed.

"We should sell a futures contract now." Annike spoke with exaggerated drunken care. "Prices can't stay this high. The profit takers will act. We could sell 150,000 tons for next-month delivery and lock in a good profit."

"Good?" Naseem said. "That's a billion sols! Why doesn't the captain—"

"He'll make up some bullshit about the Presers finding us. But that's not it. He's deep in debt."

Marqus couldn't speak for a moment. –How can she air his secrets like that!–

–She's letting the wine talk for her.– Raveena frowned. Through the thoughtspace, Marqus sensed she talked with Annike.

Annike shook her head. “No, he's behind on payments, and he took shaky loans to pay for the insulation–”

Garcia must have been eavesdropping. He strode toward them, his hand clenched white around a bottle's neck. His gaze swept over them, and Marqus quailed. “Despite what Annike might want, we will not sell a futures contract. First, we'd have to disable the censor program to send the sell order.”

Annike reeled, then pressed her lips together. “We code the message.”

“You think they don't have agents among the Venus futures brokers? Second, we'd be fools to sell now. The price is still climbing.”

“Rey, there will be profit taking–”

“And the Presers will blow helium haulers apart. We're fine.” Garcia glared, his pupils wide. “Come with me.” He hooked her arm and led her out.

Naseem squinted at their backs. “Damn, isn't a billion sols enough for him?”

“He's right,” Marqus said.

The Arab rolled his eyes. “He's not here. You don't have to suck up.”

Sonoma turned to Marqus. “You think he's right?”

Naseem brooded with sudden jealousy. Good. Sonoma's hazel eyes made him light-headed, but he managed to speak. “I can understand her desire to cash in, but the captain's right about security.”

Naseem shook his head. “A billion sols is worth the risk.” To Sonoma he said, “The party's fading. Let's go.”

“Sure,” she said, but on the way out she held Marqus' gaze for a moment. He stared after her until Raveena cleared her throat.

“Marqus, can we talk?”

“Sure. What about?”

“I'm not normally so forthright.” She bowed her head, and a blush bloomed on her cheeks. “I'd like to date you.” She looked up with her eyes wide and hopeful.

His mouth opened, but he couldn't smile. Why not? Despite her skinny rear, he found her attractive enough. Friendly, too. What held him back? His parents' slanders of "dotheads?" His hopes about Sonoma? Not even that....

His software assistant fed a thought to his consciousness. Raveena simply wasn't feminine enough. Her baggy jumpsuits and *jeet kune do* didn't appeal to him. "I'm sorry. I like you, but not romantically."

"You could if you wanted to." She shrugged. "But if you don't, your loss."

Sure, he could reconfigure his mind. But he might lose something he liked about himself. Though the outlines were usually clear, reconfiguring was always unpredictable. She half-smiled—with her mouth and cheeks, but not her eyes. "Thanks for understanding," he said, though he wasn't sure she did. She soon said goodnight.

Tensions, both in the solar system and on board, wound tighter the next few days. The Presers ordered a squadron toward Venus. Premier Zhao of the East Asian Federation of Peoples' Republics invited diplomats from both sides to a meeting in ten days. Yet most voices in the solar system expected war.

Garcia and Annike argued in their cabin; the disagreement about profit taking revealed deeper clefts in their relationship. Arguments over money and ship management leaked through the door.

The strain on board eased, though, the last day before they entered the sun, as they passed ten million miles from Earth: on Ishtar's trading floor, helium's cash price reached eight thousand. Annike and the captain smiled and touched each other in public. Too, Marqus' friendship with Raveena grew more relaxed, and he found himself glad.

A few hours before the orbital burn, Marqus looked through the ship's forward cameras as Sol grow larger. The sun washed out the background stars, and soon, details resolved. Glowing gas wisps arced ten thousand miles over blotchy red sunspots. The *Coronado's* surface temperature climbed. Marqus sensed the hull distort as the helium collectors moved into position. Time for the orbital burn.

In the crew lounge, tanks extruded from the walls and swung up their lids. Sonoma climbed into a tank on the far side of the room. During the burn, the crew would be confined to Virtual for a day and a half; perhaps he could talk to her then. Marqus climbed into his

tank. Umbilicals slithered to his face and groin to provide air, water, food, and waste removal. His attention left his body before crash gel filled the tank.

He emerged in a public Virtual simulating the ship's interior. He stepped through the gel and the lid into the Virtual lounge. Heinrich and Raveena's avatars stood there. "We're going to the stern," she said. "Join us if you want."

He thought about Sonoma, and realized she had entered a private Virtual. His mood fell. "Sure."

They drifted through the floor. The bulkhead between the crew deck and the fuel tanks crawled up their legs, torsos, heads. Marqus stuck out his tongue and grimaced at the taste.

Inside the tank, he shivered at cold vacuum. A hundred yards below lay a dark surface like a black sand beach. Deuterium pellets. Abruptly, the pellets rustled toward them. The captain had cut off the thrust.

Marqus felt queasy for a few seconds as the ship swung around and aimed its stern forward for the deceleration burn. Through the deut pellets he glimpsed the fusion drive's injector, six hundred yards across the tank. The pellets crawled over them like a thousand frozen cat tongues. Heinrich said, "I hope Garcia's right about the insulation."

Marqus remembered the specs he'd learned. "If the pellets melt, we'll be out of fuel."

"If they vaporize," Raveena said, "the pressure would tear the ship apart."

They drifted toward the drive. The deut's metallic smell made him gag—he turned it off, replaced it with hydrangea fragrance. After a minute, they neared the fuel tank's aft bulkhead. Marqus pulled himself through the hull, and it solidified under his feet. He stood on the stern and gaped.

The sun occupied half the sky, like a molten gold wall too tall to climb. A prominence arced around them. His software assistant dimmed the brightness, which made Raveena and Heinrich's avatars shadowy wraiths. Convection roiled the sun's surface, and the simulated heat made him sweat. The size of it made his breath ragged. He shut his eyes and turned his head. His inner eyelids blazed bright green. His software assistant steeled him against the sight, and he reopened his eyes.

A hatch opened twenty yards away, and a blur shot out. Marqus glimpsed a curved metal probe, three yards high. The probe streaked with reflected sunlight for a few seconds, and then vanished along their flight path. The probe would coast towards Neptune and transmit false telemetry to traffic controllers along the way. It should buy them a week before the Preservationists realized where the *Coronado* had gone. Marqus watched the sun's limb for a last glimpse of the probe, but then the sun moved around the stern's rim and he felt like he'd be thrown into it. He shut his eyes again until his assistant made the feeling seem normal.

Then the fusion drive kicked in, and flung helium out the stern at ten million miles a minute; but the exhaust appeared as a pale wisp. It would take 35 hours to slow the ship to the sun's orbital velocity. Thirty-five hours? Marqus imagined for an irrational moment it would take forever, considering how weak the ship's drive seemed in comparison to the fusion reactor looming over them.

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The burn did end on schedule, and once the crew grew accustomed to the *Coronado*'s reorientation (instead of walking them around in a circle, the main corridor was now a treadmill, with doors on the floor and ceiling, and the furnishings in their cabins retracted and reextruded ninety degrees away), they settled into a routine. The helium collectors whined as they pulled in the sun's hot gases, mostly hydrogen and helium, and threw the hydrogen overboard. Eleven tons of helium a minute, sixteen thousand tons a day, filled the hold. A little slower than expected, but fast enough. They would top off the hold sometime on day twelve. The number popped into Marqus' head: based on the last helium price quote they'd received, he earned 22 sols per second.

To earn it, he only had to sweat. The ten thousand degree heat outside began to transfer through the ceramic, and the temperature crept up, two degrees a day. Sweat stained their shirts, and by the fourth day, Heinrich walked around shirtless. His bare belly stretched tight his shorts' waistband. By day seven, the ship's robots fumbled to put empty water bottles in their trashbags. Marqus frowned. The robots usually had good coordination. Were they heat-drunk?