

McKenna Station

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**McKenna Maritime Academy
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Armis Tolan hated planets.

Which surprised no one; dirtsiders expected asteroid miners to hate planets. What they never understood was why.

Most thought it was the openness, as though anyone pasted to the side of a rock could understand what open space was. Others thought it was being on the ground itself, but the novelty of walking on an unbonded particulate surface had paled halfway through his first visit to a planet at age five. It wasn't even the weight, though the monotonous drag distorting vectors at the bottom of a gravity well was annoying.



It was the atmosphere that scraped spacer nerves raw.

Even indoors, concealing the oppressively opaque sky, the air was wrong. Wild fluctuations in humidity, sometimes as much as two or three percent, shrilled failing life support to nerves reared in space, while airborne grit screamed overloaded filters. But worst by far were the uncontrolled breezes; each random breath had his every reflex leaping for a hull patch.

Armis could not understand why anyone would intentionally live on a planet.

Though he did concede some worlds were beautiful, viewed from a sensible distance. Kathil, for example. At the moment it covered half his field of vision with bright golds and greens punctuated by brilliant white bands of suspended water vapor—clouds, he remembered. Nearly four thousand kilometers below him, it seemed close enough to touch.

Any other cadet would have taken a sled for the nine hundred meter trip from the loading gantry to the palette, but the Tolans had been asteroid miners for thirteen generations. Unless the task

called for a vehicle, Armis simply free-jumped across distances that most people wouldn't chance without a shuttle.

Few miners left the asteroid fields to crew civilian DropShips or the JumpShips that plied interstellar space, binding the Sphere together. Fewer still went to Maritime Academies like McKenna, putting in the years to earn their Merchant's papers—certification to tech the Kearny-Fuchida drives.

Most asteroid miners left their home systems because they wanted new and different lives. Others were like Armis—younger sons and daughters looking for a new system in which to establish their claims.

Every ship's Captain knew the legends, that a miner was only passing through. But folklore also had it that miners were tireless workers and pragmatists who would spend decades finding just the right asteroid field and give good value for their wages as they searched.

The legends, like all broad statements about a race or culture, were only true just often enough to keep them in circulation, which suited Armis just fine. Because of them miners were always welcome, and a miner with his K-F tech license from McKenna could pick his JumpShip.

Or he would have, before the situation became so complex. Now the merchant fleet, usually neutral in all conflicts, seemed polarized by the brewing political upheaval. Even among the Merchant Cadets, Armis found himself expected to declare for one side or the other—as though a miner would care who the dirtsiders took orders from. He refused, of course. He'd even concealed his home system to prevent the others from assigning him an allegiance he didn't feel.

Swinging his arms with the unconscious calculation of a lifetime in space, he imparted spin. His view shifted from Kathil to the palette of machine parts he'd been assigned to secure. Today's exercise had the cadets rounding up cargo that had drifted free of the loading bays. Armis had never heard of such an event in real life, but perhaps DropShip cargo handlers were more lax than miners.

Content the palette was where it should be, he didn't counter his spin, letting inertia carry him in slow rotation. McKenna Station and the Shipyard were out of sight "beneath" his boots, of course, but he could see the flares of several worksleds nearby.

Most of the other cadets were working in teams—SOP on salvage/rescue. That no one wanted to team with Armis had not gone unnoticed. Admin had specifically ordered the team retrieving a near-by water cylinder to keep an eye on him.

These two, both planet-born, had taken a sled. Armis noticed that contrary to Academy regs, each wore mailed fists below their merchanters' patches. Lyrans. One of them was a sharp-faced woman whose name he'd forgotten, but the other was Brogden Baylor, the closest thing to a friend Armis had.

A giant of a man, over two meters, Brogden was from the Odessa system. Armis knew that system had been mined out for easily accessible metals generations ago. Just as his was, or would be within a few years. However, he'd heard several systems in the Timbaktu region were showing promise, yet were still wide open. If he wanted to get posted to a JumpShip headed that way he might have to declare himself a Lyran at some point.

A ship burned a quick course correction about sixty clicks out. A *Mule*-class DropShip, from the size of the flare, not a troop ship.

Which was a strange thing for a merchant cadet to worry about.

Even at McKenna, where ship building tied it closely to the Federated Commonwealth, wars and the rumors of wars had seemed distant things. Stations, after all, were neutral territory. Particularly stations as vital to the entire Sphere as McKenna Shipyards.

That sense of isolation had been disturbed a week or so ago when Admiral Kerr, executive officer of the WarShip *Robert Davion*, had put off the ship's Captain and over half the crew and taken the vessel out of dock. He'd blasted a DropShip that had challenged him to scrap and two other ships had pounded each other to ruin arguing over his right to take command.

Since then the ships around McKenna, both military and civilian, maintained an uneasy peace. Ostensibly they were all loyal to the Federated Commonwealth, but arguments and debates over who was the rightful ruler choked the comm channels.

Armis caught a glimpse of the WarShip on his next rotation. At this distance it was only a silver spark, of course, moving slowly up from the planet's south. Its transpolar orbit would fly by a few hundred clicks above their geosynchronous path, ten, maybe twelve, degrees behind the station.

In a position to keep an eye on things.

Some planet-born cadets insisted they couldn't tell a ship from the starfield beyond it, all the points of light looked the same to them. But none of them had any trouble spotting the eight-hundred-meter WarShip on its thrice daily rounds.

Realizing he needed a course correction of his own, Armis extended his arms again, moving them through less sudden arcs, and allowed the laws of motion to cancel his spin. Satisfied with his new orientation, he blipped his shoulder thrusters through a series of micro burns until he was targeted directly on the palette.

In his own suit he would have made the correction mid-spin, but the standard-issue cadet suit was not as responsive. Or as snug. At sixty-two kilos and one hundred seventy-three centimeters Armis did not consider himself abnormally small, but whoever designed the cadet suits had apparently assumed no one under one ninety was interested in space service. Even with every strap cinched its tightest, he felt swathed in balloons.

Once he was posted to a JumpShip he'd have an issue suit, with much better tech than the Tolan family could ever afford, custom-fitted. Until then, he was resigned to looking like a child playing dress up.

Tucking his knees up, then bending at the waist—reflexively keeping net angular motions at zero—Armis oriented himself for landing. Essentially sitting with his legs extended toward the palette's upper anchor point.

The palette itself was a hexagonal box, four meters on a side and twenty meters long. This one, according to the manifest, was loaded with grain. Like most containers designed to be muscled in zero-G, it was covered with recessed tie points and handholds. This one also had a harpoon, a compressed air cannon that launched a two hundred meter adhesive tow line. A harpoon mounted on a palette made as much sense as a palette drifting free in the first place, but who was he to question the wisdom of the instructors?

Armis flexed his legs slightly at contact, absorbing some of his momentum even as he let the rest carry his upper body forward. Snapping his safety line to a recessed ring as his feet bounced clear, he let his forward motion carry him through a somersault. Stretching his arms akimbo, he brought his total rotation to zero

just as his feet once again touched the massive ferrosteeel frame. Only then did he engage his magnetic boots, letting the field anchor him firmly to the surface.

"Can't you ever do anything without showing off, Half Pint?" Demanded a voice over his suit speakers.

It was Brogden. Armis had looked up the term "half pint" the first time the huge Odessian had used it and discovered it meant 240 cubic centimeters of fluid. He had no idea what he had done to earn the nickname, but since Brogden evidently meant no harm by it, he'd accepted it in good spirits.

Turning, Armis found the water cylinder, actually an external tank for the station, a few hundred meters up orbit. Over fifty meters long and perhaps a dozen in diameter, it was bluntly rounded at one end and at the other sported a flared shroud that protected the valve mechanisms. Even with recycling and rationing, a lot of water was lost in a shipyard the size of McKenna.

At this distance the other two cadets appeared perhaps a centimeter tall. The sled, tethered with enough space to give the station's grappling hooks room to reach the cylinder, was little more than sliver of silver in Kathil's light.

"If you'd learn to think of yourself as several dynamic systems working together instead of a solid lump," Armis repeated for perhaps the hundredth time, "You'd waste a lot less energy."

"I like being a lump."

Armis shook his head, grinning despite himself. His reply was cut off by another cadet shouting over the all channel.

"They're shooting!"

"Where away?" asked Jenkins, who salted his speech with every colorful bit of navy jargon he'd learned from trivids. Common wisdom had it he'd need another decade's practice before he sounded authentic.

"Behind, down orbit!" the same excited voice answered. "The *Davion* just blasted something!"

Armis pivoted in place, wasting energy shoving against his magnetic boots. Just down orbit were two dissipating clouds of burning gas near a mote that could only be a DropShip. The ship was firing its lasers with apparently random fury. Fighters, he guessed, too small to be seen at this range.

A curse from Brogden and a flicker of light at the corner of his eye brought Armis' head around.

Against the blackness beyond the bulk of McKenna Shipyards, a brief spider thread of azure traced the space between two motes. A few degrees to the left another mote was bracketed by tiny flashes of orange.

"What was that?" Brogden asked on their workteam channel. Armis cut down the volume on the general frequency. It was a white noise of questions and exclamations anyway.

"An *Excalibur* hit another with lasers at eleven o'clock relative," Armis snapped, his words clipped with tension. "And an *Overlord* took missiles at ten."

"How can you tell who's who?" Brogden's partner demanded, her voice suspicious. "They all look alike."

"Standard orbital formation," Armis tried not to sound like he was pointing out the obvious. "The *Excaliburs* are in close orbit, the *Overlords* farther out. Look at the relative velocities."

"Spacer voodoo," Brogden murmured darkly, aware Armis heard the aside as clearly as his partner. "Just take his word for it."

"Attention Merchant Cadets," Master Robertson's voice cut across the babble on the general channel. "Return immediately to station. All exercises are cancelled. Stand by for emergency rescue procedures."

They'd been expecting this, or something like it, since Admiral Kerr had commandeered the *Robert Davion*. But expecting it and having it actually happen were two very different things.

"McKenna Station, the Shipyards and the Merchant Marine Academy are neutral," Master Robertson's voice was firm. "Remember that. When the time comes, we're going to help all who need it, regardless of their—"

An expanding ball of flaming gas threw an assembly gantry into sudden silhouette.

"They're shooting at us!" someone shouted over the chorus of curses.

They weren't, Armis realized. At least not directly. The flare was the *Mule* he'd seen earlier, mortally wounded and trying desperately to not collide with the shipyard. Spewing fire and atmosphere,

the ungainly spheroid, a jagged rip laying its cargo bay open to space, twisted upwards, trying to clear the construction frame.

It almost made it, would have made it if the hull had been intact. The ragged edge of the hull breach snagged the topmost gantry, ripping the hundred meter structure from its moorings.

Armis was the first to realize where it was going.

"Brogden! Allison!" he yelled, remembering the woman's name at last. "Jump to your sled! Fast burn, eight o'clock relative!"

He saw the two cadets slap their belt packs, jettisoning their safety lines, and leap clear of the water tank. Their shoulder jets flared, seeming pitifully feeble before the ponderous approach of the gantry, but fast enough. One made the sled, dropping into the control harness, but the other arced suddenly to the left, swinging wildly away from the utility craft.

"Release your safety line!"

"It's got my leg," Brogden snapped. "Get out of here, Ali! Go, go, go!"

He bent, trying to reach the line fouled around his leg as Allison obediently gunned the sled. Scooting up and away, she headed down orbit, above the trajectory of the massive ferrosteel frame.

In deceptively slow motion, the gantry slammed into the water cylinder. The heavy metal frame bent, but only slightly, imparting nearly all of its kinetic energy. Brogden's safety line popped like a whip, jerking the cadet savagely.

The cylinder began to tumble down orbit.

Armis wasted a heartbeat determining it would pass about a hundred meters behind his palette before he could move. He swung the harpoon around and, calculating the vectors almost by instinct, fired the adhesive line across the cylinder's path.

Stooping quickly, he levered the quick-release catches anchoring the harpoon to the palette, letting his magnetic boots and back absorb the torque. Once it was free, he straddled the harpoon's support post, the square base behind his thighs.

Judging he still had about a dozen seconds, he let out the suit's leg cinches and triggered the patching foam. For once his size worked in his favor and the frothing sealant filled the space around

his legs. His extra half dozen centimeters of padding gelled just as the harpoon line snapped taut.

Whiplash nearly separated his skull from his spine. He was sure that without the foam padding his legs would have broken.

Fighting the impulse to climb along the line hand over hand, he activated the harpoon's winch. Climbing would have been faster, but there was no point in arriving five minutes earlier if he was too exhausted to be any good once he got there.

"Brogden," he called over the team channel. "Brog, you still with us?"

"Hunh?" Brogden's voice.

Ahead Armis could see the cadet's suit still swinging at the end of its safety line. Neither cadet had enough mass to affect the water cylinder's course appreciably.

His comm unit flashed for attention. Academy administration on his individual channel. He chinned to the secure frequency.

"Merchant Cadet Tolan."

"Disengage, Tolan," came the order he'd expected, but not the Old Man. The Academy's Commandant never sounded that hard and clipped. "Let the rescue sleds do their job."

"Rescue sleds are out of position, sir," Armis replied. "Besides, it's too late."

Actually, it wasn't, yet; not for him. He had another twenty, maybe thirty seconds before his point of no return. But Brogden, tethered to the mass of the water tank, didn't have a choice.

"Cadet Tolan, this is McKenna Station Control." No wonder Armis hadn't recognized the voice. "You are ordered to sever that line. Disengage."

"No can do, sir," Armis was proud of his level tone. "I'm all he's got."

"Cadet ..."

"Sir," Armis cut the officer off, "Impact was from up orbit. He's retrograde. I figure atmosphere in twenty minutes."

For a moment the frequency was silent. Did they really think he hadn't realized the water cylinder, and Brogden, had been knocked from orbit by the impact?

"We make it twenty-two minutes," the watch officer said at last. His voice was gentler. "What do you intend to do?"

"I'm giving that some thought, sir," Armis replied.

"Understood," Station Control said. "Let us know how we can assist."

"Aye, aye."

His point of no return, the last moment when he could leap free and not be pulled down into the atmosphere by the plunging cylinder came and went unremarked. The winch still reeled in the line, its vibration an irritating itch through the suit and impromptu padding.

Armis was still twenty meters from the cylinder when Brogden came fully conscious. He announced the event with a string of curses directed at the fates, safety lines, his left leg, and space in general.

"Leg broken?" Armis asked when the other began to run out of steam.

"Yes, it's broken. Yes, I filled the leg with patch to immobilize it. Yes, I triggered the yellow pain injector, not the blue one, so I am still conscious and able to function and very aware that I really want to take the blue pain shot, too," Brogden dispensed with the standard first aid checklist in an angry rush. "Where the hell is rescue?"

"I'm it," Armis answered.

Firing his jets, he abandoned the harpoon and leapt for the axis of the cylinder's tumble, the safest boarding point. Matching vectors was tricky; he was almost too late in swinging his legs up to absorb the impact. He hit with a jolt and nearly bounced free before his boot magnets engaged. Not trusting their power, he stooped quickly and clipped his own line to a safety ring.

Through his boots he felt the ring of the harpoon's impact. No doubt it was smashed, its casing no match for the massive cylinder.

He located Brogden's safety line almost instantly, which didn't surprise him. The fact that the other cadet was spiraling almost lazily behind the cylinder instead of swinging wildly through space had told him the safety line was anchored near the center of the spin.

Planting his feet widely to absorb torque, he began hauling the line in.

"What are you doing?" Brogden demanded through grit teeth. "That's my damn leg you're jerking around."

"Simplifying the dynamics," Armis answered, grunting with effort. For a moment he envied the planet-born their massive musculature.

At last he had the larger man in hand. Armis wasted no time in lacing the safety line through two pairs of rings, passing it across Brogden's body several times as he bound him securely to the cylinder.

"I'm getting tired of asking you what you're doing."

"Keeping you from bouncing around," Armis replied.

"I was fine," Brogden said. "Where the hell is rescue?"

"I'm it," Armis repeated.

Brogden digested that as Armis worked his way toward the valve assembly. From their perspective, Kathil rose at the blunt end of the cylinder and arced above their heads at dizzying speed before setting beneath the flared shroud of the outlet nozzles.

"We're falling," Brogden pronounced at last.

"Right."

The cylinder was tumbling fast enough that there was a faint sensation of "down" pressing him against the titanium steel as Armis reached the base of the shroud. That was nothing compared to the vertigo induced by the wildly streaking stars and blur of Kathil swinging past. He kept his eyes firmly fixed on the cylinder beneath his feet.

"You've got a plan." It wasn't a question.

"Going to use a simple reaction drive," Armis said, wishing he could wipe away the sweat that was seeping past his headband.

"Ah."

The shroud was meant to shield the nozzles and valves until final connection. It was designed to open out in sections, like the petals of a flower, as the nozzles and valves it protected slid into a gasketed port in the work station's hull. There was no way for Armis to either jettison the shroud or open it; he was going to have to climb inside to reach the water tank's controls. His job was made a little easier by the rings of handholds meant to facilitate muscling the massive cylinder through the last millimeters of connection. Armis leaned forward, stretching himself along the grey metal, and gripped one of these tightly.

"Unclip my safety line, will you?" he asked.

"You anchored?"

Safety protocols even now. Especially now.

"Yes."

"Line is free."

The electric motor at his waist retracted the line with maddening slowness as Armis counted his heartbeats. He figured he had six minutes in which to either succeed or fail. He knew the station gave him a bit more, but he trusted his instincts more than their calculations.

"How are you going to stop the tumble?" Brogden asked.

"Can't," Armis said simply.

Catching the end of his safety line, he reached above his head, clipping it to the handhold.

"Loquacious," Brogden said. "Anyone ever tell you you were loquacious? You just talk too damn much."

Armis grinned.

"Good to have you back in gear," he said. "You understand the plan?"

"You're going inside the nozzle shroud," Brogden answered. "You're going to manually vent water—we've got what, six thousand liters under pressure here? —and hope it's got enough thrust to push us back in orbit."

"We'd need three of these tanks to make orbit," Armis corrected. "I'm going for one bounce to buy us enough time for rescue to get here."

"One problem."

"One?"

"If the cylinder's tumbling and you're inside the shroud working the valves," Brogden said, "You won't know when we're pointed the right way. How will you know when to open and shut the valves?"

"That's why I brought you along," Armis explained. "Time our rotation. Shout 'open' and 'close' at the right times. Physics will do the rest."

"Wait, wait, wait," Brogden objected. "That's seat-of-the-pants astrogation. You're way better at that than I am. You sit out here and I'll work the valves."

"Even if both legs worked," Armis countered, "You wouldn't fit inside the shroud assembly."

He waited a moment, but Brogden had no answer for that.

Gripping the handhold tightly with both hands, Armis chinned his boot magnets off. The angular acceleration of tumbling cylinder immediately swung his body around. He barely suppressed a gasp of pain as his body snapped taut, his feet swinging against the wildly spinning sky.

"Hang in there, Half Pint," Brogden's voice was soft in his ear, as though the big man didn't want to startle him into losing his grip.

Armis grunted an acknowledgement.

One hand at a time, he reversed his grip on the handhold, twisting his body so that he was facing the open maw of the shroud assembly. Pulling his knees toward his chest, he folded himself against the centrifugal force of the spin. It took far too long to get his feet inside the shroud, too long for them to kick against something metal and their magnets take hold.

For a moment Armis hung, his hands gripping the handhold outside the shroud, his boots anchored to some part of the plumbing mechanism within while angular acceleration tried to throw him into space, and caught his breath. Releasing one hand, he found purchase on the inner lip of the shroud assembly. There was a

raised ring, part of the seal, a ledge about four centimeters wide against which he could push.

Shifting his magnetic boots blindly from metal surface to metal surface, he pushed himself down until he could grip the end of the nozzle with one hand. Releasing the lip of the shroud, he began pulling himself further in.

Finally his back was against the cylinder itself, his legs astride the emerging pipes. The valve controls were almost directly in front of him, while the nozzles themselves were above—although it felt like below—his head.

Pulling a loop of slack in his safety line, still belayed to the handhold outside the shroud, he lashed himself firmly in place.

"In position," he reported.

"Great," Brogden's voice seemed faint. Armis hoped that was an effect of the shroud blocking transmission and not the man's succumbing to his injuries. "Open in nine."

"Ready."

There were four pipes and four valves, though Armis wasn't sure if that indicated four separate compartments inside the tank. He could reach three: one just to his left, the second directly in front of him, and a third a long stretch to his right. He knew the fourth was out of reach on the other side of the bundle of pipes.

Until he knew how long he had between vents ...

"Now!" Brogden's shout interrupted his thoughts.

Armis grabbed the two valves closest to hand and yanked them open. Fortunately, they were simple open/close levers, not wheels, and full flow was immediate.

Now acceleration was added to the centrifugal force of the cylinder's tumble. Blood rushed to Armis' head as his suit creaked, straining against the lashings. A chill ache penetrated his suit and spread through his thighs as the decompressing water rushed through.

"Close! Close! Close!" Brogden's frantic shout came faintly. Definitely the shroud muffling the signal, thought Armis as he snapped the levers shut. The other cadet was clearly fully conscious.

Armis shifted his left hand from the first valve to the one directly in front of him and stretched his other to the valve at the far right. In case there were four compartments, he wanted to get the maximum thrust from each flow.

By the third revolution, Armis had the pattern. Every thirty-seven seconds he'd open the vents for six seconds. The ventings—Armis thought of them as “burns”—seemed a little long to him, but he wasn't in a position to see what was happening. There was no choice but to trust Brogden.

After the fourth vent Armis loosened the line holding him to the pipes. Keeping his grip through the fifth was difficult, pain shot through his lower back and already aching legs as the thrust tried to push him upward. The fact that he could hold on confirmed his suspicion that the force of the ventings had diminished.

As soon as the fifth vent ended, Armis scrambled awkwardly around the pipes in the confined space until the valve that had been out of reach was in front of him. The valve that had been to his left, the one he had only used once, was now under his right hand.

With no time to lash himself in, he jammed his right leg as far into a gap between the cylinder and the valve assembly as he could, twisting his foot sideways until it was wedged firmly. He hoped that would anchor him if he lost his grip.

He rejected triggering the pain killer against the inevitable broken leg. He needed to keep his mind clear.

“Now!”

Armis opened the valves. His grip slipped against the thrust, definitely much stronger than the last. He felt his right knee *pop* as it torqued violently. But his leg held, even as the wave of pain and nausea threatened to knock him out. He was still in position, still conscious, when Brogden shouted the order to close.

Cursing his earlier *machismo*, Armis quickly chinned the yellow injector. There was a sharp chill as the dispenser blasted microscopic crystals of medicine through the soft flesh over his jugular vein. A wave of giddiness passed through him as the powerful analgesic took effect.

As he lashed his good leg to a pipe stanchion, he realized the deadline had passed. They should have been burned to ash by now.

Had they generated enough thrust to bounce off the atmosphere? Or had they only delayed the inevitable by a few moments?

Almost in answer to his question, the shroud behind him seemed to throb heat. Intermittent friction, he realized, as the water cylinder tumbled through the outer fringes of the atmosphere. When—if—they dug in a little deeper the leisurely rotation would snap the other way with the force of an inertia ram. He'd be crushed to paste before he felt anything. Right now all he felt was heat, though there must be a lot of it if he could feel it through his back pack and shoulder jets.

His shoulder jets.

In a panic he vented the jet pack's fuel reserves. There was no place for the mist of microscopic droplets to go inside the shroud, of course, but there was little danger of the loose liquid igniting. His suit would protect him against a burning cloud of unconfined fuel in any case. A fuel tank explosion would have cut him in half.

"Now!"

The icy cold of the venting water coursing between his legs contrasted sharply with the sweltering heat building up inside his suit. What was Brogden feeling, tied to the outside of the cylinder, unshielded by the shroud?

"Close!"

"You okay out there?" Armis tried to keep his tone light.

"A little lemon with a bit of butter," Brogden answered, his voice scratchy with static, "And I should be perfect. Somebody better flip me over before I burn on this side, though."

"Be sure to vent your fuel," Armis advised. "And fill as much of your suit as you can with patch to help insulate."

"Took the same safety classes you did, Half Pint," Brogden somehow managed a chuckle. "How's it look in there?"

"We're good," Armis assured him, as though he could see the gauges which were well above his head.

"Get ready," Brogden warned. "Now!"

Armis opened the valves, counting to seven before he shut them again. It was only after the rushing stopped that he realized Brogden had not given the close order.

"Brogden?" he asked. "You still with me?"

Static. Static and maybe a groan.

"Brogden!" shouted, knowing his voice would be a scratchy whisper in the other's ear. If the other was in any condition to hear.

Armis hadn't been counting the seconds since the last burn ended. Without Brogden he had no way of knowing when to open the valves again. He waited, straining to hear any sound from the other cadet.

Now? he wondered, trying to count back the seconds in his head, Now? His hand twitched on the valve control, but he fought the urge to throw them open. A vent at the wrong time could undo all work they'd done.

It had been too long. He knew it had been too long. He'd missed the moment to vent; he must have. He knew there was no way to way to see outside and trigger the valves at the same time, but he tried to think of one anyway.

Anything was better than sitting blindly in the dark waiting to die.

A cough on the radio, a gasp and then: "Now!"

Armis' hands already gripping the controls, twisted in a painful spasm, throwing the valves open.

"Close!" Brogden croaked.

"Good to have you back," Armis said.

"Yeah," Brogden answered tersely. "Hang on."

"What?"

"Hang—"

Armis was slammed back against the shroud, his ears ringing from the helmet's impact. Then he was slapped forward, his faceplate hitting the pipes so hard he forgot everything else in a frantic check for microfractures.

His radio light flashed for attention. One of the commercial frequencies, he realized.

"Brogden, I'm switching to channel L-four," he broadcast, and waited a moment for the other to answer. Silence. With a sigh, he chinned the frequency selector.

"Merchant Cadet Armis Tolan here," he reported crisply, or as crisply as he could.

"You the monkey on the valves?" asked an unfamiliar voice.

"Aye."

"Lay off. This is the *Castle Hayne*, we've got a grapple line on you."

Armis didn't recognize the name, but only a DropShip would have the mass to capture a tumbling water cylinder. Even one that was mostly empty.

"How's my partner?" he asked.

"We'll know in a minute."

There was another jerk; a second and perhaps a third grapple, Armis guessed. And faint clangs through the metal pipes; people landing on the cylinder?

There was a slight pause.

"His suit integrity's good, he's got pressure," said a voice. A female voice Armis thought he recognized. "His faceplate's fogging."

Armis nodded to himself in the dark as he listened to them secure the injured cadet for transport to the DropShip. An inflated suit and evidence of breathing; anything beyond that was detail. Brogden was going to make it.

"Avast, Tolan!"

"Ahoy," Armis corrected Jenkins—for it could only be Jenkins—but not loudly enough for his mic to pick up.

"Stay clear of the shroud," Jenkins continued. "We're going to blow the bolts."

Not questioning how he was supposed to stay clear of the titanium steel plates which surrounded him, Armis hugged the pipes before him tightly.

"Clear!"

There was a pause, perhaps a dozen heartbeats, then the yellow flare of explosive bolts and the sky opened up around him. His vented fuel flashed, a pale blue nimbus that dissipated almost instantly. Then there was only space, *home*, black with cold and distant stars.

Twisting sideways, Armis tilted his head back, trying to see the DropShip that had rescued them. The *Castle Hayne* was the wounded *Mule* that had hit the gantry, which made sense now that he had time to think about it. It had been the only ship in position, already moving in their general direction. Of course it had scooped up the scattered cadets and come after the cylinder.

Suddenly the other cadets were around him. Alison caught hold of his shoulders, bracing him, while Jenkins bent to work on his trapped and broken leg. He had never noticed the sword-and-sunburst patch on Jenkin's shoulder before. There were others, but he could not see their name patches nor their faces through the polarized ferroglass of their helmets.

Beyond them the golden crescent of Kathil cut across the sky as the cylinder swung on its tether, blotting out the stars. Armis pulled his mouth into a hard line.

He never wanted to be this near a planet again.