

King of Titan

Shawn Tyndale traveled a rough road to Titan.

Romantics picture the Saturnian satellite as a scenic delight, its mother planet's rings splendid in the night sky. But Titan's dense atmosphere hides all behind a featureless veil of mustard yellow, and the temperature, 180°C below zero, limits excursions outside the enclosure to an hour or less. A hitch on Titan is no romantic adventure; it's little better than a punishment detail. Eight months into a nine-month tour, the six members of SPEAR Team Titan—and their leader—were tightly wound.

Commander Tara Ussher had her hands full keeping a lid on tension. A fifteen-year veteran, Commander Ussher had volunteered to lead a team of newly commissioned SPEARs, all underperformers, to Saturn's largest moon. The demand for trained planetary explorers had outstripped supply, and the Titan mission was an experiment to test whether SPEAR standards had become too strict, and whether they could be relaxed. Of course, the brass chose Titan, the most god-forsaken permanent planetary base in the Solar System. "The rougher the better," Tara's commanding officer had told her. "If they don't wig out, we'll loosen up." Tara didn't like the idea of lowering the bar—no SPEAR she knew did. Taking command of the mission was her way of making sure that the outcome wouldn't be fudged. It was her first tour on Titan.

Cracks formed on day one. Though camaraderie was a core value of the SPEARs, factions formed almost instantly among the new recruits. Chief engineer Victor Wallace and construction specialist Winslow Yeger were a natural pair, often going for days speaking only to each other in technical argot incomprehensible to their teammates. Ulrich Vigny, the biggest and toughest (though not the brightest) adopted ensigns Ridley Stiers and Marcos Najda as his

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protégés, ordering them around as if he outranked them, which he did not.

Shawn Tyndale, always the loner, was the odd man. He liked it that way (or so he told himself). It's what he told himself during meals, left out of conversations; in the exercise pod, working out in solitary; and through the holographic battles the SPEARs fought for endless hours to pass the time on Titan, Shawn having been accepted grudgingly by the army which had gone the longest without him in their ranks.

As the months passed, alliances grew stronger and Shawn's isolation more complete. Whatever hours weren't spent alone at the climatological console, logging air pressure, wind speed, and weather patterns, he spent alone in the pod or at the far end of the mess table. Tara tried her best to engage him, but he didn't *want* to be engaged. The team had passed judgment, and Shawn had accepted it; in fact, he wore it like a battle ribbon. *Fuck 'em* was his motto.

That was the equilibrium Team Titan had settled into by month eight, all of them counting the minutes until relief arrived. Tara had already written her report: *SPEAR standards are appropriate. No changes recommended.*

#

Special Planetary Expeditionary Reserve (SPEAR) training was the toughest in the service, like the old Navy SEALS but in hard vacuum and zero-G. Five months of conditioning followed by six months of orbital training were just warm-up. Fewer than one in ten passed. Another half failed SPEAR qualification training: four months at Lunar Base Armstrong, four more at Martian Base Von Braun. The dropout rate from start to finish was 98 percent, a figure the drill instructors quoted with pride—which is why Shawn Tyndale perturbed them so. He was easy pickings.

Every SPEAR got a nickname the first week of basic training: *Bullhorn*, the Kenyan with

the booming voice; *Rhino*, the Ozark hillbilly with no neck; *Icicle*, the Amazonian woman from Canada who could freeze you with one fierce look. Among these colorful monikers was Shawn—*Teeny*—Tyndale.

He'd barely made the cut: a centimeter above minimum height, fifteen grams over minimum weight, a quarter point higher than minimum GPA. The D.I. called him out on day one, screaming in Shawn's face, *What kind of bawling, pissing, diaper-shitting babies are they sending me?* His breath stinking of kimchee, while Bullhorn, Rhino, and the others suppressed a laugh, struggling to keep eyes forward and jaws set. It was the first day of a year and a half of hell.

The D.I. never let up, not even after Shawn passed conditioning by a hair, a month after Rhino went home to Arkansas to run the family chicken farm; not even after Shawn completed orbital training, setting a new record for puking in space; not even after four months on the Moon's surface, where Bullhorn and Icicle bailed; not even after Shawn survived final exercises on the slopes of Olympus Mons, winning his SPEAR commission under a cloud of controversy and with the lowest composite score in the history of the program. *Teeny has grit*, the D.I. admitted, but admire him, even grudgingly, he did not. Allowing a miserable specimen like Teeny to make it into the SPEARs he considered a personal failure. And the brass's decision to pass Shawn after the Olympus Mons incident only rankled him further.

But Shawn, the runt since birth, the kid other slightly less wimpy kids gave thanks for was a Space Corps SPEAR.

His reward—a tour on Titan.

#

Titan's weather is peculiar. The thick atmosphere, weak gravity, feeble sunlight, and slow

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rotation alter meteorological phenomena from their Earth analogs. Systems develop slowly and persist for weeks. Severe weather is rare.

Logging climate data was the least interesting assignment on the base, unlike the exterior excursions, which at least got one out of the enclosure for an hour. Those who ventured out told stories of how they'd strapped on wings and taken flight, flapping their arms to get airborne in the low G and heavy air. It was the closest thing to fun on Titan, but Shawn, assigned full-time to weather analysis, had never done it. He kept quiet as others described their flying experiences, smiling if any of them accidentally glanced his way. *Fuck 'em.*

The third day of month eight was different. Doppler radar showed a formation 200 kilometers distant, headed their way. Wind speed clocked at 60 kph, but what made the system unusual was the precip. Titan Base was right in the path of a blizzard.

“What’s the timing?” Tara asked, leaning over Shawn’s shoulder, her hand resting on the console.

“Six hours, maybe sooner,” Shawn answered. “It’ll last at least forty hours.”

The display glowed shades of red never seen before, a cell higher, wider, and faster than any previous system.

“It looks ugly,” Tara remarked. “What can we expect?”

Shawn scrolled through the Titan weather database. “Hard to say. No one’s ever logged anything like it. High winds for sure, and snow.”

Tara stood up, crossing her arms. “Methane snow?”

“Yes, sir. It’s a strong system; temperature reads minus 188. Definite snow. Could be a little, could be a lot. If I had to guess, I’d guess a lot.”

Tara tapped her fist on Shawn’s shoulder. “Right. Let’s hunker down.”

#

Ulrich, Ridley, and Marcos worked in shifts to secure experiments and stow equipment, each man donning his heated suit and oxygen mask before operating the air lock. Victor and Winslow completed an overdue repair on the enclosure and fixed shutters to the viewports. Tara and Shawn stayed inside, Tara logging her report, Shawn tracking the progress of the storm. Six hours after Shawn's alert, the wind picked up, its eerie howl penetrating the enclosure's thick insulation.

Dinner was unusually quiet as Team Titan listened to the rising and falling whine of the storm, as threatening as any sound they'd heard on Titan. After three hours the novelty had worn off, and the team was engaged in fierce holographic warfare. Shawn was the first virtual casualty, sending him to the sidelines. He watched the fighting another half-hour before turning in.

The next morning the storm had grown stronger. Shawn reported sustained windspeed of 80 kph, with gusts to 110. The team ate breakfast in silence, uncertain how long they'd be holed up, the monotonous drone by now boring its way into every SPEAR's brain.

At hour twenty the power failed.

Lights flared and consoles flashed; the enclosure went dark for a minute before the emergency lighting kicked in. The ventilators went silent, the storm now the only sound.

“Victor, status!” Tara barked.

The chief engineer plugged an instrument into a diagnostic port in the junction box. He tapped the keyboard, slowly at first, then quickly, then frantically.

“Status!” Tara repeated.

“In a minute,” Victor shouted. The team stared until he stopped punching. He gaped at

the display, saying nothing.

“Is it the reactor?” Winslow asked, referring to the nuclear-powered thermoelectric reactor, the base’s only source of power.

“The reactor’s functional. It’s the main breaker.”

“Tripped?” Tara asked. “Why? A fault?”

Victor shook his head. “No, not a fault. The breaker would have reclosed to clear a fault. We’d have noticed that.”

“Then what?”

Victor tapped his thumb on his lip. “The breaker’s bad. We’ll have to replace it.”

“Then we’ll replace it,” she said. “What’s that involve?”

“It’s not complicated. Lock out the main feed, rack out the bad breaker, rack in the spare. It’s a one-man operation.”

Tara nodded, then her eyes got wide. “That’s in the reactor enclosure.”

“Correct,” Victor confirmed. He pointed toward the airlock. “About hundred meters in that direction.”

“Over open ground,” Winslow added. “A corridor would’ve been *superfluous*.” His voice was tinged with sarcasm, common when the SPEARs complained, as they did often, about the seemingly idiotic decisions of SPEAR command.

Tara scanned their faces, dimly visible in the emergency lights. The air was noticeably cooler.

“Shawn, what’s it like out there?”

“Console’s dead, but last time I checked, 190 below, wind 85 gusting to 120. And another thing...” he trailed off.

“What?”

“Lightning, very intense—non-stop.”

“So?”

“It’ll disrupt the radios. No comms.”

“Shit,” Tara whispered, “what else can go wrong?”

She looked down, biting her thumb, as SPEAR Team Titan awaited her orders.

“Ulrich, you have the duty,” Tara said in a clear, commanding voice.

“Me?” Ulrich blurted.

Tara shot arrows with her eyes. “Do you have a problem with that, SPEAR?”

“No, sir,” he snapped. “No problem.”

Tara softened her expression. “It’s nasty outside. I need my toughest SPEAR.” She put her hand on his shoulder, then turned to the engineer. “Victor, brief him.”

#

Ulrich slid into his environmental suit, its backpack fully charged with enough energy to keep him warm for sixty minutes, alive for another ten. He pulled on the hood and affixed the mask, attached to an oxygen supply to augment the nitrogen Titanean atmosphere. He checked all connections, verifying the suit was functional.

“Ridley, get the airlock,” he ordered in a muffled voice. Ridley snapped the crank into place to manually operate the inner door of the lock, a necessity without power. Ulrich stepped into the airlock. Ridley cranked the door shut.

Ulrich performed the same operation from inside the lock, leaning into the crank. The outer door wouldn’t budge.

“What’s the problem?” Tara shouted through the window.

“Stuck,” Ulrich replied, redoubling his effort. The crank turned a fraction, then gave way as the door cracked open.

A cascade of crystals, like fine white sand slid through the opening and buried Ulrich to his knees. The powder scintillated, a haze of gaseous methane rising from the pile, dissipating into the airlock, until the warm air from the enclosure escaped, and the frigid atmosphere of Titan replaced it. The snow settled into an inert heap.

“Jesus,” more than one SPEAR muttered. The snow had accumulated thigh-high outside, and more snow swirled into the enclosure, whipped by gale-force winds.

Ulrich stared at the snowy blanket, and at the snow streaking by. He gave a thumbs up as he waded forward.

“Ulrich!” Tara shouted, banging on the window.

He turned back.

“The crank,” she yelled, pointing. “You need it to shut the door.”

He looked at the crank, then back at Tara. “Why? I’m coming back.”

She shook her head. “Secure the airlock, SPEAR.”

He hesitated but obeyed. It took him more than a minute to crank the door shut, stopping twice to clear snow from the opening.

The rest found seats and waited, looking alternately at the lights and the clock.

#

“Ridley!”

The SPEAR jerked his head toward Tara when she called his name.

“Sir!”

“Suit up.”

Ninety minutes had passed since Ulrich left and the enclosure was still without power.

The temperature had dropped, each SPEAR exhaling a cloud with every breath.

Ridley donned his equipment as the rest sat mute. Marcos opened the inner door. As warmer air entered, the mound of methane snow sublimed with a sizzle. Ridley stepped into the airlock and, once Marcos closed the door, snapped a spare crank in place and tried the outside door. It took nearly all his strength to budge it, but once budged, it slid open easily, burying Ridley to his waist in a shimmering mound of white.

Ridley looked back at Tara. She pointed out the door.

The SPEAR pushed out into the snowbank and cranked the door shut.

After another half-hour, the temperature had fallen below zero. After an hour, they all put on their environmental suits. After an hour and a half, Tara ordered Marcos into the airlock.

#

Ten hours into the outage the storm still raged. Winslow had followed Marcos, and Victor had followed Winslow. Each time the inner door opened, another mound of methane vaporized into the enclosure; each time the outer door opened, another mountain replaced it. By the time Victor had ventured out, the snow was chest deep. Now, with only Tara and Shawn remaining, Tara made her final command decision. She held the hood loosely, passing it from hand to hand. “Wait an hour and a half. If I’m not back, you’ll need to make an attempt.”

“I’ll go now, Commander,” Shawn volunteered. “I’m ready.”

Tara slipped on the hood. “You’ll do as you’re ordered, SPEAR,” she said.

“Why?” Shawn lowered his head, then looked at his commanding officer with narrow eyes. “*Why?* Let me try. If I don’t come back, *then* you take a turn.”

She shook her head. “No, SPEAR. It’s my decision. I have to play the odds.” She reached

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for the mask. "I have a better chance."

"A better chance than *me*, you mean. Like Ulrich had a better chance, and Ridley, and Marcos, and Winslow, and Victor. They *all* had a better chance than Teeny Tyndale."

Tara glared at Shawn, then put on the mask.

"Operate that airlock, SPEAR."

#

Shawn crouched shivering in the dark, nodding, hovering between wakefulness and sleep, images flitting through his visual field, voices sounding in his head.

"*Tyndale!*"

Twelve SPEAR trainees scaling the cliff at the base of Olympus Mons, hauling supplies and gear along routes ranging from steep to vertical.

A voice crackling in Shawn's helmet: "Tyndale, belay that line!"

Shawn's gloved hands fumbling with the device, his attempts to attach it to the line increasingly frantic.

"*Tyndale!*"

"*Wait for it!*"

"*Goddamn it, Teeny! Belay the line!*"

The device closed, but not locked.

"*Teeny!*"

"*Belay on!*"

The line going taut, the device twisting out of Shawn's hands, opening like a jackknife.

"*Fall! Fall! Belay the line!*"

Shawn gripping the line, its sheath wearing through the glove's palm, pressurized oxygen

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hissing through the breach.

“Tyndale!”

A shout, a grunt, a moan. The line going slack.

Shawn's head snapped erect as the lights came on, the consoles blinked to life, and the ventilator resumed with a welcome rush, melding with the sound of the storm. He checked the clock—an hour had passed since Tara had exited the airlock.

Shawn raised his hands to the vent, warming them in the stream, rubbing the feeling back into them, until he was distracted by a high-pitched tone from a console, flashing red:

WARNING—HAZARDOUS CONDITION—METHANE CONCENTRATION 12%. AVOID SPARKS AND OPEN FLAMES UNTIL SCRUBBER REDUCES CONCENTRATION TO SAFE LEVEL (<2%). ESTIMATED TIME: 24 HOURS.

After another hour, the temperature was back to normal, and Tara had still not returned. Team Titan had dwindled to a single SPEAR.

The storm wailed, the ventilator wheezed, the console whined.

Olympus Mons finding: two dead, two injured. Official cause: device failure.

SPEARS commissions awarded to the survivors to fill urgently-needed slots; the truth concealed for the good of the Reserve; the facts spreading through the ranks via the usual channels.

Shawn was the last living human on this world, a monarch with no subjects. The relief team would arrive in four weeks to find the rumored culprit of the Olympus Mons incident as the sole survivor of SPEAR Team Titan, rejected one last time, his reward for being the least worthy.

Shawn rummaged in the utility locker for a small plastic case. He found it at the bottom,

buried under loose tools and discarded boots.

The survival kit. It'd been standard issue for planetary expeditions since the first mission to Mars. The kit was useful for a hiker lost in the woods, but worse than useless for a SPEAR, its contents ill-suited to any conceivable off-world survival scenario, unnecessary weight in a weight-critical business, more a way to mock its owner than to save him.

Shawn opened it to find what he was looking for: a magnesium rod, attached to a flint and a steel striker. The 22nd-century man laughed at the sight of the millennia-old technology. SPEAR command had not only burdened the mission with this useless junk, but had trained every SPEAR in its use: Step 1—scrape magnesium shavings into a pile; Step 2—strike the steel to the flint, igniting the pile; Step 3—add fuel.

He checked the console: *METHANE CONCENTRATION 11%*.

Fuck 'em.

Shawn decided that the magnesium was unnecessary. He struck the flint, spewing a cascade of sparks in a glittering fantail, melting into an engulfing sheet of incandescence.

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