## Space Hero

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The space hero came out of the old Soyuz docking ring in a flight suit that looked so new you could have cut titanium with the creases.

"Just call me Rob," he said as an introduction, pocketing his sun glasses and shaking Jake's hand in a firm Naval Academy grip. He'd remind him later about the bone loss the long timers suffered.

Jake had the orbital shuttle ready to go, but the hero had to update his blogs and establish a downlink. "For the folks downstairs," he said, doing a tight half gainer over to the communication console.

Jake waited as Rob, or Robert Danforth, NASA astronaut and self-appointed ambassador of good will and public relations, downloaded a pocket cam full of videos from his launch and then set up for a live Q&A session with a class of third graders in Ohio. He answered the usual questions (how close are the stars, what does the Earth look like, can you see Ohio, how do you go potty) like he'd spent his whole life teaching kids about space. Jake wondered if NASA had a training program for that, since most of the current astronauts spent all their time on the

ground. Jake hadn't done much PR in the past three years, with the business of space and keeping the manufactories running the sum total of his time, both working and free.

"We don't get many of you blue suiters up here," Jake said after the sendoff from Rob admonishing the kids to do well in school and pray.

"That'll change soon," he said, stowing his assorted com gear. "Once they pick the first crew." He gave a wink, as if he knew already who would make the cut for the first manned Mars mission. "I can't wait to see the ship."

"Let's see if our launch window is still open," Jake said, and led him though the hub, toward FREEDOM's main docking pod.

Wrangling a visiting NASA astronaut made for a difficult assignment. The old days of steely-eyed fighter jocks had gone the way of blank checks from the government and grand presidential visions of space conquest. Everybody upstairs these days had *work* to do, with some science thrown in if they had the time. Jake turned back, taking another look at the space hero. A few years back, when those third graders from Ohio were just future plans for their farmstead parents, Robert Danforth turned a shuttle launch disaster into a miraculous landing, bringing his damaged orbiter back with all hands. He put the American space program back in the news for a year or two, and launched his current career.

But he must've spent all his time doing the PR shuffle, or else he'd have known the first Mars ship and the "scheduled" first mission would remain a plan for a very long time. Jake's own manufactories had multiyear contracts that had to be completed before they'd have the robot-hours to get back to working on the Mars ships. The deep space tracking network didn't have a hertz of bandwidth to spare, with all the rovers and orbiters and the belt miners out exploring the Solar System. And robots and computers could explore the universe for a lot less cash then a tin can full of men.

Jake and Rob floated into the docking pod. Jake introduced Rob to the duty crew, and within minutes the old astronaut had them under his spell, telling stories, asking questions, handing out commemorative pins. He knew some of them from their days at NASA, before they'd "gone commercial." Jake turned to the main terminal as Holly broke from Rob's orbit.

"Sorry, we got a load of tourists coming in," she said to Jake, "you'll have to wait until they dock."

"Good news for you," Jake said, "More time with Mr. Right Stuff."

Holly swung around, one arm on the terminal. She tucked her loose hair back with her other arm and looked toward Rob. "I dunno. Nice to have a real astronaut visiting and not yet another zero-g robot jock."

"Well, if he gets tired of shaking robot claws over at Tri-Star, I'll send him back early."

Holly gave him a hip check, nudging him away from the terminal. "Let me make sure the *Love Boat* hasn't gotten lost," she said, calling up a panorama of navigation screens. "Two hours late, right on schedule. You'd think Astro-Disney would run a better operation." She picked up a headset and put on her official voice. "ASTRO PRINCESS, this is FREEDOM traffic control. Docking cleared on port seven."

Updated telemetry came in, and Holly juggled the transit lanes, a dozen ships in transit, seventeen commercial habitats, a swarm of satellites, and the usual cloud of junk and debris that filled low earth orbit these days. Nothing got past her watchful eyes.

"Damn, a five-hour layover," she said. "Remind me to tell the eggheads to lock up the labs or someone'll grab a mouse to take home."

Jake did a flip, moved in closer to her ear. "Trade ya," he said.

"No way," she said, rotating away. "But—I got two days downtime next week—you free?"

Jake sighed. If he got the space hero squared away, if his robot crews made the weekly quota, if the Russians made the next delivery...

"I can find a day," he said.

Holly gave him her best pout. "Maybe Rob will have some time," she said. "He could show me his medals and I could show him the stars."

"A day and half! I'll make the time."

Holly gave him a wink and turned back to the terminal. Soon the station shuddered as the tourist ship made hard dock, and within minutes of a good seal a dozen tourists floated into the hub, bouncing off each other and the bulkheads. Jake realized then he should have gotten Rob on the shuttle first.

"Welcome to space," he thundered, shooting toward them. They circled around him, the usual mix of enthusiastic, rich, older people, and Rob started his standard meet-and-greet. Like the crew, most of them knew him, and before long the stories started and the autograph pen came out.

"I may never get back," Jake said.

Rob settled into the pilot's chair and with an uncanny ease. He pulled the checklist from the slot and flipped to the first page. Jake hovered behind him.

"As much as the world recognizes your piloting skills, sadly, the owners of this beat-up orbital shuttle, Tri-Star Industries, and their numerous insurance policy providers, don't. So I have to fly us over."

"C'mon, Jake. I've flown these in the simulators a thousand times. A quick trip, no one will know." He beamed his thousand watt smile, gave a thumbs up. "Wheels-up in ten minutes."

Jake debated arguing. He wished for failsafes and lockouts and an advanced computer interface, something to keep Rob's hands off the controls. Instead rolled into the copilot's seat, strapped in. "You can't deviate from the flight plan," he said. "Or else you'll screw up Holly's traffic control."

Rob looked up from the checklist, one hand over a switch. "Can't we swing out to Hubble, for few photos?"

Jake opened his mouth, ready to scream. Every tourist ship boosted to the high parking orbit, but they'd have to burn all the shuttle's reserves to get there and back.

"Just kidding, sport. Man, you should see your face. Now make sure I don't make a mistake." He went back to the pre-flight, and Jake slowly calmed down. At least Rob showed he knew his way around the shuttle cockpit, turning serious and professional.

After getting final clearance from Holly, they undocked. Rob held his hand on the joystick, but the auto-pilot pulled them away cleanly, spun them to the right vector, and ignited the main engine. Rob kept alert, eyes on the viewscreen, ready for anything.

"Have you done any work on MARS ONE?" Rob said after they had cleared the station.

"Way back," Jake said. "I did the chassis assembly. My robots, actually."

"Outstanding. I can see you take pride in your work—and your robots."

"At least I don't worry about strikes or sick days. But a solar flare can send the entire production line off their rails."

Rob gave a quick laugh, then turned quiet as they crossed the terminator. He looked poised for action, as if about to make a night landing on a carrier. But the shuttle plodded on, with no need for any input from her crew.

"This mission means a lot to me. Even if I don't get selected, I'll support it one hundred and ten percent."

Rob might be a dinosaur, an old stick-and-rudder man who could fly an automated ship, but he didn't look happy doing it. He came from a previous age, and the next age of exploration wouldn't come around for a dozen years, or whenever the orbital factories caught up with demand. And he'd never get selected then. Jake hoped his enthusiasm would cover the disappointment of seeing MARS ONE.

"You don't have to go to Mars," Jake said. "We have a booming economy right here in Earth orbit. With your NASA training, you'd fit right in. A dozen observatories, manufactories—"

Rob held up his hand. "I know. Work like that—and I know it takes work, would drive me crazy. I can't even... never mind." He flexed his hand around the joystick, eyes back on the instruments. "Let's just concentrate on the flight."

Jake watched the nightside for the rest of the trip, until Tri-Star station came into view. It reminded him of an erector set gone crazy, docking hubs sticking out at odd angles, solar panels flying atop a two hundred meter boom, pinpricks of light from a dozen welding robots around the main module. Rob looked too, but his eyes searched until they found MARS ONE and never left. Jake reached over and switched off the auto-pilot.

"We just cleared the transit lane," he said, "and sometimes the docking sequence goes haywire. Why don't you take us in?"

Rob smiled, and if he knew that an auto docking sequence hadn't gone haywire in six and a half years he didn't say anything. He already had the docking ring on the heads-up, and his approach and capture felt as smooth and solid as any the shuttle computers ever performed. Together they went through the shut-down sequence.

"We've got about three hours before dinner," Jake said. "We've got a downlink ready for you, so you can catch up." Tri-Star kept shifts running 24/7, but most everyone came together for one meal a day. And they'd all look forward to a new face.

"Can we see MARS ONE first? She looks good on the outside, I can't wait to see the inside."

Jake had cargo coming in, and a bunch of robots to check on. He guessed Rob could find his way around, and charm anyone he met along the way.

"Why don't you take the self guided tour? I'll answer any questions later."

Out of habit and tradition long established before Jake ever arrived, the galley module maintained an Earthside ambience, complete with faux-wood paneling and incandescent lighting. The tables met in a single plane, providing space for everyone on-station to sit at one time—although sitting only required bellying up to the table and velcroing in. Station etiquette also meant sitting while eating. Jake came in late, grabbed a loaded tray and floated over to the table. He found a spot next to Dan, who had a pancake in one hand and a squeeze tube of syrup in the other. Dan had the next shift in Jake's production area, station morning for those who kept track.

"So did you lose the cargo?" he asked.

"Half a ton light, but the Russians got it here," Jake said. "If you get the time, have it unloaded."

Dan took a shot of syrup, caught a sticky drop before it got away. "No, the other cargo, the dead weight from NASA."

Jake looked around the table. He should have known by the volume of conversation. Just the usual table chatter, and some heated debate on the other end of the table about the World Cup.

"I left him at the ship," Jake said.

"Well, when he gets tired of nosing around, I could use some help."

Jake pulled open a pouch, squeezed out a mouthful. "NASA paid for his trip."

"Yeah, just so he can look around, and ask questions, and get in everyone's way."

Some of the others at the table joined in the conversation, wondering when the space hero would show up. After a few months on the station, everyone got to know everyone else well enough to get along, but they all seemed hostile to Rob. A stranger on board made for a distraction, an outsider, someone to vent on. But Jake figured Rob could charm anybody. He pushed off, dinner half finished, and stowed the tray.

Shooting down the main corridor, he stopped twice on his way to the docking ring to make sure his robots crews hadn't crashed or rebooted. Both bays had the usual hum of activity, forges running and the mills rolling. He hit the junction feet first and bounced off, redirecting himself toward the ship building hub. Not much activity down this way, orders for ship frames and modules having fallen off in the last year. Lights in the transfer tube led him in, but inside MARS ONE all the lights remained off. He kicked off toward the cockpit.

Rob sat in the pilot's seat, with a pocket cam velcro'd to the bulkhead aimed at him. The instrument panel, a duplicate of the one in the shuttle, showed a few systems powered on, the rest dark and lifeless.

"Oh," Jake said, "I didn't mean to interrupt a taping."

Rob looked over, the shadows across his face hiding his expression. "I'll wait for sunrise," he said. "Quite a ship you've built."

Jake anchored to the back of the flight engineer's seat, took a look around. Most of the panels had mock-ups installed, colorful decals in place of actual equipment.

MARS ONE could fly, if she had to, but she'd never leave Earth orbit. "We still have some work to do," he mumbled.

"I know the plans and schedules, but I had to see it for myself. See the plumbing and tankage. Feel the fabric. Flip a few switches."

"We just need a few more deliveries," Jake said, suddenly defensive. MARS ONE would work. Nothing exotic about her design. Just a matter of putting the pieces together.

Rob shook his head. "Yeah, I know. But the Mars mission needs a lander too, and a hab module for the surface, and the refinery. Just putting the command ship together doesn't make the entire mission."

"It'll happen, Rob. NASA has put up the money, more or less, and the schedules will work out."

Rob looked out the viewscreen. An arc of Earth, glowing in sunlight, appeared behind the framework of the station.

"Back on *Discovery's* last flight," he said, talking slower now, in a half whisper, "when the hydraulics started to go halfway over the Atlantic, you could measure my life in minutes. I had one thing to do. One path to follow. No options. And I did it."

He shook his shoulders, like he fought back a laugh. "I made it look easy, but I never did anything so hard. And now my life has expanded, and I have years and years ahead of me, but nothing as hard or as easy as those few minutes."

The station crossed the terminator, sunlight playing on the framework outside, reflecting into the cockpit. Without the shadows, MARS ONE looked more real, less like a shell. Rob smiled now, as if the light had washed away his memories. He put his sunglasses on. "Time to get the video show on the road," he said, "Hit the record button for me."

Jake took welder number seven off-line and stowed it in the shop. Whenever he got some time he'd crack it open and try to figure out what made the damn thing reboot ten times a day. His daily checkout of the hardware done, he floated over to the terminal to check the paperwork. He had to get a dozen certs out, and make sure they had enough inventory for the next week, and get started on the quarterly report. Instead, he dug into the archives, checking into the old MARS ONE contracts and specs. The design looked good, no technological leaps required. But the mission plan required support ships, and landers, and habitation modules. All still in the appropriation stage. But it could happen. Could happen soon, with money and juggling the schedules. If anyone would pay for it.

The station gave a shudder as something undocked. He didn't know Dan had the cargo unloaded already. He called up his schedules, ready to get back to work, but couldn't concentrate.

Dreams. Did Rob come up here to sell a dream? A dream only he believed in? Too much business these days, Jake guessed, too much profit/loss, too much cost/benefit. They could send a boatload of robots to Mars right now, but who'd do the video shows? And what if the things rebooted during re-entry?

Dan's face broke onto his screen, his brows knitted together. "Jake, just what the hell is wrong with your flyboy?"

"I haven't seen him today," Jake said.

"Then MARS ONE just undocked all by itself?"

Jake kicked off from the console toward the nearest window. At the other side of the station, MARS ONE pulled away from the docking ring and the loose transfer tube. She started to roll, then the aft thrusters fired, moving her away.

Jake didn't reply to Dan on the screen. He pushed off from the window and headed out of the manufactory toward Central as fast as he could move.

The Central hub had all Tri-Star's communications and control, and by the time Jake shot in, bouncing hard off a bulkhead, everyone else had gotten there first.

All the screens flashed warnings, and a looped clip of Holly played in one corner, declaring an emergency. All flight plans were rescinded, all stations to maintain alert.

"What has he done?" Jake asked. Dan hovered over to him.

"This has nothing to do with the space cowboy," he said. "The Astro-Disney boat hit a solar panel fragment an hour ago and lost control."

Jake let out a breath. Just the usual over-caution when any mishap occurred. There would always exist a danger of an expanding debris field after a collision, and space tracking would take a while to count all the pieces. He saw the tourist ship on the radar screen, looking to be in one piece, but tumbling.

Dan pointed to the rest of the crew. "If we get him back in time, they might not even notice," he said. "He hasn't gotten far."

Jake grabbed a headset and turned back toward the main communication console. The emergency looked under control; Astro-Disney ground control had good telemetry from the tourist ship, and although they had lost navigation, life support remained on-line. He found the com freqs for MARS ONE, and switched on the transmitter.

"Rob, you couldn't have picked a worse time for a joyride," he said. "We got an emergency and everyone has to stay put."

The station handshook with the ship and data flowed back and forth. Half the displays stayed dark, with the ship waiting for most of its major systems.

"Rob, I know you can hear me. Listen, you've only got a hour or two of air at best, and we don't have time to mess around. Come back right now."

"Jake, good to hear you." Rob's voice came over the headphones with his usual bright attitude. "She flies better than I hoped."

The ship had cleared the solar panel boom, heading for the transit lane. "Look, Rob, this will mean your career. We don't have any flight clearance, and even if we did, you don't want to fly around when a debris field could expand into your orbit."

"We have a bigger problem than that," Rob said. "I got in touch with NORAD as soon as the tourist ship went off-line. Hang on, I have to program my burn, talk to you in a minute."

Dan moved in closer, picking up a headset. "Has he started the Mars mission by himself?"

Jake paid no attention. He signaled to FREEDOM, trying to get Holly on the line. After a long moment, her face came up.

"I don't have time to chat," she said. "Astro-Disney's got a rescue ship prepped. They should launch in an hour, and I have to clear traffic."

"We have an unscheduled launch," he said. They'd never hide Rob's joyride once he entered the transit lane. "We will attempt to recall."

"Attempt? Negative, Tri-Star station. You *will* recall all ships." With a jab at her console, she closed the screen. Jake switched channels.

"Rob, listen, you got to get back now."

"Jake, I'm almost ready to burn," he said. "You know what the difference between a government contract and a commercial contract?"

"Rob, please, no jokes."

"A government contract goes to the lowest bidder, a commercial contract goes to court. You should hear from NORAD soon."

Dan shrugged his shoulders when Jake shot him a look. "He must have gone crazy," he said. The rest of the Tri-Star crew had assembled around his console, watching. They all looked to Jake, as if he had launched Mars One.

Then Holly's screen popped up. "Tri-Star, NORAD had requested your assistance."

The alert screens shifted as the tracking updated. The circles expanded, encompassing more of low earth orbit. Tri-star and Freedom hung on the outskirts, and the tourist ship flew above them.

"NORAD casts a wider net," she said, highlighting a dozen orbits that intersected LEO. "Once the tourist ship lost thrust, it put them right in line with an old booster. Can you render assistance? We've got no ships in the transit lanes."

The telemetry from MARS ONE had the interception course plotted.

"Affirmative," Jake said, feeling like he had arrived in the middle of a movie. "We will assist."

Jake stayed at the terminal as the rescue unfolded in slow motion. Rob still had an hour to match orbits with ASTRO PRINCESS and dock, and just a nudge from his thrusters would pull them both out of the path of the booster. Some of the Tri-Star crew filtered out, back to the production areas.

Still, something didn't look right. MARS ONE had most of its parts, could fly, but a lot of pieces had never been installed or tested out.

"Looks like you got yourself another mission," Jake said. He had the schematics out, and kept checking the telemetry. He worried that something wouldn't work, and unlike wrangling a dozen welding robots, lives hung in the balance.

"This one might have to last me for awhile," Rob said.

Then Jake saw it, right on the schematics. "Rob, confirm your O2 reading."

"You know what I read."

"Rob, you have to come back."

"Negative."

"Rob, you saw it yourself when you went on board. You don't have a auto docking module. You'll never mate with the tourist ship, and you don't have enough O2 for a return trip."

"I got a mission to last me a lifetime," he said.

"Rob," Jake said. But Holly's screen came up, interrupting him.

"Jake, what's going on? Rob's changed course."

MARS ONE veered away from an interception with the tourist ship. "Rob, speak to me," he said, switching channels.

"I knew about the docking module," he said. "But I won't need it to hard dock with the booster. I'll just take it out of harm's way, and the rescue ship can bring the tourists back home."

Jake punched up the orbit of the booster. "Rob, that's an eccentric orbit. You'll never get back in time."

"I know. But I had to do this."

"Rob, you still have the fuel. Turn back now. The booster might not even hit."

"I can't take that chance," he said.

"What about Mars? You could still go to Mars."

"That's a long way off, my friend, even if everything falls into place. To tell you the truth, I just can't wait that long."

Slowly the ship diverged from ASTRO PRINCESS, toward the booster.

"Getting kind of stuffy in here," Rob said. "Two minutes to rendezvous."

He made a neat hard dock, grappling the front end of the booster on the first try. The two jittered as thrusters stabilized them.

"I'm going to let the autopilot take over from here," he said.

MARS ONE's main engine fired.

"Mainly," Rob said, his words starting to slur, "I didn't want people to forget. You'll remember me, won't you, Jake?"

"Sure, Rob. No one can forget you."

Holly stood watch on the docking hub alone when Jake arrived. Dan and the rest of the contingent from Tri-Star headed over to the observation deck for the memorial service. Freedom had shuttles from every station docked, and an honor guard had come up from Houston.

Jake floated over to Holly. She closed down her terminal, plucked a data chip from the console.

"Wait," she said. "We have to talk."

Jake anchored himself. "I know this has been hard on you. I liked Rob, too."

"Not that," she said. She held up the data chip. "Telemetry."

"So Rob left before you actually requested assistance. No big deal, he had MARS ONE ready, so what if he entered the transit lane early?"

Holly ran her hand through her hair. "Not that either."

Jake took her hand, closed her fingers around the chip. He waited.

"The news people keep hounding me, asking for more details. They want to know everything."

"So tell them. Rob would've wanted that."

She opened her hand. "The booster never would have hit the PRINCESS," she said. "I've gone over the numbers again and again. Nothing more than a near miss. NORAD's numbers weren't as good as mine."

Jake closed his eyes. "I think he knew. And he would have gone either way." He took the chip from her hand. "NASA contacted Tri-Star this morning. They want us to finish MARS ONE. I can find a place for this on-board."

Holly kicked away from the console. "We'll let the news guys make up the story," she said. "They'll do a better job."

