

April 17, 2003

The Cascade Effect

Treatment
by
Josh Becker

Act I:

In the year 2054:

The Earth is entirely enshrouded in satellites, both old and new, space stations, and debris left over from old multi-stage rockets. No efforts have ever been made to clean up the old space detritus, so it's just continued to build up and build up. Satellites of every make and model, from a hundred different countries, some working, some dead, endlessly circle the planet. The misty blue-green ball of Earth is now severely obscured and utterly surrounded.

Radio telescopes all over the Earth keep a constant, twenty-four hour watch on all of the space debris, satellites, and space stations. Should any of these items hit each other, moving at over twenty thousand miles an hour in orbit, it could be catastrophic.

At the Evergreen radio telescope installation in Colorado in the Rocky Mountains, an attractive, female, astronomer with black hair, Dr. Erika Hanford, is talking to a politician, Senator LeFarge, and his entourage, all wearing suits and ties of the period, which are all bright colors, have wide lapels, and loud wide ties. And clearly facial hair on the men is in, with big sideburns, mustaches and beards. The women have odd, tall, styled hairdos.

Dr. Hanford turns from a three-dimensional holographic representation of Earth and all its orbiting satellites, space stations, and debris, to the Senator and his people.

"Let's face facts, shall we. There's way too much crap up there, and we can't keep an eye on it all anymore. It's jamming the space lanes. What happened to all of the programs to remove and destroy some of it?"

Senator LeFarge shrugs. "The funding never comes through. It's far cheaper to keep hiring more astronomers like you than implement any of the programs."

Dr. Hanford shakes her head. "Well, you do know what'll happen if any of this stuff starts colliding with anything else, right?"

The Senator snorts derisively. "Yeah, yeah. The Cascade Effect. Scientists have been bitching about that for over fifty years, but it hasn't happened yet, has it?"

"No, not yet. And it's a miracle, if you ask me. Every little fleck of paint up there is whizzing around at over twenty thousand miles per hour. There's so much junk up there that it's become a series of holes that the spaceliners have

to maneuver through. I sure wouldn't want to be one of those pilots." She steps over to another 3-D holographic image of a Boeing 7007 Spaceliner sitting on a runway—it looks a lot like the present-day space shuttle, though much larger, that takes off on a runway like an airplane. "Right now, for instance, the lunar launch is just preparing for take-off from Edwards SpacePort. Although the course will be triangulated and plotted for the ship's auto-pilot from telescopes all over the Earth like this one, the human pilots have to be ready and able to take over navigation at any moment in the forty-eight hour flight. This is particularly stressful because the courses the ships are maneuvering are absurdly crooked and twisted due to all the space debris.

The Senator walks away. "But a pilot has never had to take over the controls of a spaceliner in the ten years of regular space travel between here and Lunaville on the moon. And now with two ships they have three flights a week going in both directions, for goodness sake."

Dr. Hanford nods. "I'm well aware of how many flights there are, senator, that's why you're here. We, the scientific community, believe the odds are turning against us."

Senator LaFarge walks away and all his people follow along, like ducklings. Yes, well, I'll certainly do what I can, you can count on that."

Dr. Hanford watches the Senator and his people depart, then turns back to the hologram of the spaceliner, warming up on the runway.

The actual Boeing 7007 Galactic Spaceways spaceliner, sitting on the actual runway at Edwards SpacePort, outside Los Angeles, is a huge ship. Baggage-handlers and the runway crew go about their various jobs beneath a plane that's four-times the size of a 747. Luggage is loaded and food is brought aboard. Humans look like ants compared with the ship. A long line of water trucks are lined up emptying their contents into the enormous 200,000 gallon water tank in the belly of the spaceliner.

Inside the Spaceliner, it's not that much larger than modern 747, since most of the girth is the heat and radiation shields in the fuselage, as well as the huge water tank. The front pilot's windows are tiny compared to the size of the ship.

Sitting in the cockpit is the co-pilot, a beautiful, intense, blonde woman in a uniform, Lt. Sarah Simonson, who is going through the standard, routine take-off prep. A moment later the pilot steps in and he's a tall, good-looking man in his mid-forties with short hair named Capt. Bill McCormack, known to his friends as Mac or Big Mac, depending on how well they know him.

Mac asks, "Course fully loaded?"

Lt. Simonson says, "Yes, sir."

"What's it look like?"

"A bent corkscrew tied in a knot."

"Excellent. See how the seating is going, okay?"

"Yes, sir."

Simonson stands and leaves. She looks great in her tight uniform.

Mac sits down in his seat, straps himself in, then glances down at his right hand which is balled-up in a fist in his lap. He flexes his fingers and sees that he's shaking. Mac looks around cautiously, grimaces, then quickly opens a pill bottle and pops a little white pill. He then hits a button and the holographic head of the Flight Controller, a black man in his thirties with pointy sideburns, appears before him.

The Flight Controller says, "Mac, I hear Galactic has offered you a free house in Lunaville, and you're not taking it."

"I don't want to live in Lunaville. I can't uproot my family and move 'em to the moon. Jessica would never forgive me."

The Flight Controller smiles. "Those are nice houses up there, Mac. Swimming pools, golf courses, five thousand square feet each, the works. If they offered it to me, I'd take it."

Mac sighs. "Honestly, Jim, I'm having a little trouble at home these days and I can't be rockin' the boat, know what I mean?"

The Flight Controller nods. "Oh, sure. Still . . ."

Lt. Simonson returns with a confused expression on her face. "Captain, I think you need to come back and take look."

Mac becomes a bit annoyed. "Can't you handle it?"

The lieutenant frowns. "Just come back and take a look. Please."

Mac stands and follows her out of the cockpit.

The Captain and the Lieutenant walk back through the passenger compartment, where every seat is a full-sized lounge with a glass enclosure. The Captain and Lieutenant smile, say hi, and wave to everyone. Lt. Simonson points and Mac sees his wife, Jessica, and their two children, Tim who is ten, and Judy who's seven, all seated in their lounges and ready to leave. Mac is flabbergasted.

Mac asks Jessica, "What's going on?"

Jessica, a pretty, hawk-like woman in her mid-thirties, says, "I'm leaving you."

Mac is completely shocked. "*What?*" He looks around to see who's listening, then sits down beside her so they can speak more softly. "Why like this?"

Jessica shakes her head. "Because I've tried to tell you fifty other times and you wouldn't listen. You completely stopped listening to me years ago. Well, are you listening now?"

"I'm listening."

"Good. I'm leaving you. I'm taking the kids, as you see . . ." Tim and Judy both smile at him from their lounges. ". . . And we're moving to Lunaville, to the free house you turned down."

Mac's confused. "But I turned it down."

"No, you told me to turn it down, but I took it."

Mac is stunned. "But why?"

"Mac, face it, you're not a husband and you're not a father, you're a pilot, and a damn good one, but that's it. And that's not enough for me."

Lt. Simonson steps up and Jessica throws her a look filled with daggers. Simonson coughs. "Excuse me, sir, but it's time to go. If we miss this window it will be eight more hours before we can leave."

"Right." Mac stands. "I've got to go."

Jessica says, "As always."

Mac and the Lieutenant walk back to the cockpit in silence.

They strap themselves in for take-off. Simonson glances at Mac, but he doesn't look back. They both go through the standard take-off procedure.

The engines on the huge spaceliner fire up, the baggage-handlers get out of the way, the conga-line of water trucks drive off, and the connecting chute is moved away.

Up in the tower in flight control, which is a lot like NASA's flight control, except there are 3-D holographic images above each controller's instruments. We see the Flight Controller in person, standing with a tiny earphone in his ear that's also a microphone, speaking to the ship, which he sees as a 3-D image, as well as for real out the tower's window.

The Flight Controller says, "Galactic Spaceliner, number B-2, you are cleared for take-off."

Mac's voice says, "Roger that, flight control."

The spaceliner taxis down the tarmac, builds up tremendous speed over the course of a mile-long runway before it has sufficient thrust and lift to take off.

The spaceliner takes off into the sky just like a big jet, then begins circling the Earth to build up the sufficient speed to leave the Earth's atmosphere. To achieve this, the ship keeps going higher and higher and faster and faster . . .

Stewards and stewardesses serve dinner to the five hundred passengers, then prepare them for sleep in their lounges. At a point after dinner, when all of the passengers have relaxed back in their lounges and are watching holovision, all the lounges seal over and the hiss of some sort of sleep gas is emitted. Everyone promptly falls asleep. Their holovisions automatically go off, as do the interior lights of the lounges. The passengers will be asleep for the next forty-seven hours. That includes Jessica, Tim, and Judy.

By the time the spaceliner reaches escape velocity, they are pulling two Gs, or the equivalent of two gravities equal to that of the Earth's gravity.

The seats that the pilot and co-pilot are seated in are mushy and filled with a jelly-like substance and have fully reclined to help their bodies withstand the tremendous force pressing on them. Just reaching your hand up and scratching your nose is a big ordeal at two Gs.

Both the pilot and the co-pilot legitimately don't do anything. Everything is done automatically. They are there strictly as emergency back-up, in the unlikely event that every other back-up system should fail. This has never occurred in the history of commercial space travel.

And, as the ship finally leaves Earth's atmosphere, still with a lot of vibration and a tremendous amount of heat building up on the ship's heat shields, they suddenly glide soundlessly into the black void of space—

—Which, at this distance from Earth, is completely filled with satellites and space debris! There's literally stuff everywhere. The ship begins veering left, right, up, down, sideways, and around to avoid hitting things. Mac and Simonson watch the 3-D displays in front of them with complete and total concentration, although they're not doing anything but watching. The auto-pilot steers them through the labyrinth of obstacles with information beamed in from radio telescopes all over the Earth.

Nevertheless, it's an incredibly hairy ride for over an hour, and if the passengers weren't anesthetized, they'd all be barfing into their vomit bags. In fact, if they knew they probably wouldn't have taken the trip. The ship goes whizzing past live bleeping satellites; dead, darkened satellites; hunks of old spaceships; as well as some old nuclear weapons, American, Russian, Chinese and Indian.

Mac and Simonson keep watch, and even though all's well so far, it's like being on a roller-coaster and knowing everything is working right, except you might have to take over at any second, should the need arise.

Which, as usual, it doesn't. Soon the ship is traveling silently through clear open void of space, moving toward the glowing orb of the moon. The G-forces go back to normal and Mac and Simonson both sit up. Mac glances down at his right hand and it's really shaking. He makes a fist and grits his teeth. Simonson sees, but acts like she doesn't.

Simonson says offhandedly, "I'll take the first watch, you catch some sleep."

Mac shakes his head. "Naw, I'm fine. I'll take the first watch."

She nods and reclines back in her lounge, "Yes, sir." Her lounge seals over and the light goes out.

Mac takes a deep breath. He flexes his fingers, and rubs his right hand with his left. He exhales loudly and shakes his head. He looks over at Lt. Sarah Simonson and he remembers the fun-filled weekend they had on the moon together a year ago. Swimming, gambling, seeing a show, making love. Then both of them finally vowing that this would never happen again, and it hasn't. Mac sighs deeply.

Mac and Simonson switch off on eight-hour shifts, the passengers sleep, and forty-five hours later the spaceliner begins orbiting the moon. The passengers are all awakened and their sealed lounges open at the same time with a hiss. They all sit up one by one and stretch, their hair sticking up in goofy directions.

Still too high to land, the spaceliner passes over Lunaville, a ten mile square glass-enclosed city with green rolling hills, big houses, and many golf courses. It looks like Palm Springs under glass domes. The passengers look down, point, and ooh and ahh. Beside the city is a ten-mile long illuminated landing strip.

The spaceliner circles the moon and comes back around on Lunaville, only this time they are coming in very low. Housings on the front of the ship's wings open up revealing reverse retro-rockets.

Setting the huge ship down is exceptionally smooth on the moon, at one-sixth the gravity of Earth. Stopping the ship's forward movement is the big issue. The retro-rockets fire, working as brakes, and slowly over the course of the ten-mile runway the spaceliner slows down and finally stops. The landing crew, wearing space suits, converge on the ship, and a walkway is pushed into place, which locks in and seals to the side of the ship.

Mac and Simonson look at each other and shrug, another job well-done. Simonson glances back toward the passengers and Mac catches her look. Oh, yeah, that. Mac sighs, stands and heads back.

Simonson says, "Good luck."

Mac nods, looking pained. "Thanks." He leaves.

Simonson watches him go, and what can she do? She loves him.

Mac escorts his wife and kids off the ship. Jessica won't talk to him or even look at him. They step into the terminal and find a welcoming committee waiting for them, with a brass band and the Mayor of Lunaville, and all of the leading residents waiting to greet them. It turns out that the McCormack's are the 500th family to immigrate to the moon and are the people of the hour.

Mac, Jessica and the kids are driven to their new home in a limo, with a parade following along behind. Mac and Jessica smile at everyone but each other.

Meanwhile, the other spaceliner is preparing for take-off to go back to Earth. Capt. Buck Krاندall is the pilot and Lt. Jeffery Jackson is the co-pilot. During reentry the auto-pilot malfunctions for the very first time. Capt. Krاندall has to take over the controls and fly the ship manually through the space junk, which is an insane ride. When it appears they've made it, the spaceliner just nicks an old satellite that goes whizzing off into space end over end.

The satellite collides with another old satellite and they both explode, sending out thousands of pieces of shrapnel, which begin hitting other things and causing them to explode, sending out more speeding shrapnel in all directions. The Cascade Effect has begun.

Act II:

Down on Earth, at the radio telescope installation, Dr. Hanford and her team are watching as the monitored space junk begins to holographically flying out of control, collide with other space junk and explode. Everyone stands there helpless. There's nothing they can do.

Dr. Hanford shakes her head sadly. "I told them and I told them, they just wouldn't listen."

An assistant says, "Maybe they'll listen now."

Dr. Hanford shrugs. "Now it's too late."

At the control tower at the Lunaville Spaceport, the flight controllers have spotted the explosion on their advanced-looking radar screens. One flight controller turns to another.

“You think this is just going to keep going?”

He sighs. “It sure looks like it.” He turns to an assistant. “Get Captain McCormack and Lieutenant Simonson in here. They need to see this.” A guy goes running out.

The spaceliner, now with a damaged wing, completes its next orbit of the Earth, not knowing what it left behind in its wake. Both pilots feel like they just escaped with their lives and are busy mopping their brows when they see they are flying head-on into a roiling wall of flaming shrapnel and exploding satellites.

There’s no stopping their course and they fly right into it. Pieces of speeding debris come ripping through the spaceliner like machine gun bullets, killing every passenger aboard in their lounges, as well as the Captain and Lieutenant.

Then the spaceliner explodes, creating even more shrapnel and debris that begins colliding with other floating detritus. The Cascade Effect keeps expanding and growing.

In Mac’s new house on the moon, his family is asleep upstairs and he’s camped-out on the couch. But Mac can’t sleep. He goes over to his suitcase, removes a bottle of whiskey, as well as a pill bottle, and takes them both back over to the couch. Mac dumps a couple of white pills into his hand, then washes them down with liquor straight from the bottle. Jessica’s voice comes from behind him.

“Great combination.”

Mac turns around and sees his wife standing on the stairs. “You ever try it?”

“No.”

“Then don’t knock it.”

Jessica comes over and stands before him. “Why do you need that?”

Mac sighs, “Because my nerves are shot, okay?”

“And why’s that?”

Mac looks up at her, “Because I’m stuck in a bad marriage and I work too hard.”

Jessica sits down beside him looking sad. “You want out of this marriage? So you can get together with your co-pilot? What’s her name? She’s very pretty.”

“Lieutenant Simonson.”

Jessica looks surprised. “Lieutenant, eh? When you sleep with her does she call you Captain?”

Mac shakes his head and sighs deeply. “It was one weekend over a year ago. I’ve said I’m sorry a million times. What do you want?”

“I wanted you, Mac. I wanted you around, to be a husband, to be a father. All you ever did was come home to change clothes. Sleeping with the pretty

lieutenant was just the last straw. You'd obviously found everything else you needed at work, so once you found sex there, too, I knew there was nothing left for me."

Mac takes a slug of whiskey. "You married a pilot, Jessica. This is what I do."

"Most pilots don't leave the Earth. You took the most difficult pilot job there is. You chose your work over your wife and family. So live with it."

"I'm having trouble living with it." Mac takes another drink.

Jessica says, "I see that."

At the radio telescope on Earth, Dr. Hanford and her assistants watch the holographic images as one explosion after another continue to occur in space. One by one the holographic images begin to blink out and disappear as the radio telescope stops functioning. An assistant turns to Dr. Hanford and asks in a frightened tone, "What happens when the nuclear weapons in space explode?"

Dr. Hanford sighs, "I guess we'll find out pretty soon. Whatever it is, it can't be good."

On the moon, a car comes screeching up in front of the McCormack's house. Mac is asleep on the couch when the doorbell begins ringing insistently. It's an officer from the spaceport. Capt. McCormack must report immediately to the spaceport. Mac goes to put on his uniform as Jessica comes down the stairs and watches him leave.

Sarah runs on a modern-looking treadmill really hauling ass and sweating. She turns the treadmill higher and runs faster, than faster still. Finally, she got it up too fast and gets thrown her back onto the floor in a heap. She stands up and glances over at a 3-D photograph of her and Mac standing in front of the spaceliner in their uniforms. She drops her face into her hand and begins to cry.

Sarah suddenly wipes her tear-stained face on her sleeve, then tears off her sweaty clothes, savagely tossing each piece across the room, then goes to take a shower.

On Earth, people from all over the world are looking up into the sky and watching explosions occur. It's like a fireworks display, but higher up in space.

Nuclear warheads float in space, some of them American, some Russian (with the old U.S.S.R. markings), some Chinese, and even an Indian missile, too. All aiming down at the Earth, waiting to start the ultimate war.

Suddenly, tiny pieces of debris begin whizzing past like bullets, then more and more, until the missiles are finally struck and detonated.

Down on Earth, the entire planet experiences a huge Earthquake. The sky turns to blazing fire and becomes too bright to look at. Most people crouch down or fall down. Buildings and bridges collapse. Avalanches crash down the

sides of mountains. Enormous tidal waves are kicked up, that start moving around the globe, smashing and drowning entire islands nations.

On the moon, the residents of Lunaville have all come out of their houses and look up through the clear glass of the bubble over the city at the blue-green ball of Earth floating in the sky like the moon does on Earth. Only there are explosions going off all around the planet.

Then suddenly there is a series of huge ripping explosions around the Earth that can be felt all the way on the moon. The people all look horrified.

Mac is in the control tower at the spaceport and is watching the explosions rocking the Earth with the rest of the flight crew and the navigators. They are in contact with Earth, then the transmission is cut off and the line goes dead.

At the radio telescope installation, Dr. Hanford and her team pick themselves up off the floor to find most of their equipment smoking and in ruins. The younger astronomers look to their leader and ask, "What's going to happen now?"

Dr. Hanford brushes the dirt off of her clothes and looks up. "Most communications will stop working. Space travel has just ended for about a hundred years, and since the moon base is not yet self-sustaining—meaning they have no water supply up there—they're all dead."

On the moon, after a few days have passed without a single word from Earth, everyone understands their dilemma. Suddenly, water is more valuable than gold. Policemen are stationed around all of the water tanks with electric stun rifles. Everyone begins hoarding water, draining their toilets and hot water heaters, as well as siphoning off all the water from the water hazards on the golf courses, and the fountains in front of buildings. All of the stored ice in freezers is melted back into water and saved in containers.

In the spaceport tower, more and more top officials are showing up, including the Mayor, who says, "We've got to get everybody out of here and back to Earth, otherwise we'll all die of thirst."

The head flight controller, Tom Hastings, says, "We've lost communications with Earth. But given the size of those explosions—the nuclear weapons going off—Earth may possibly be not be worth going back to. Also, with all of that new debris in space, I don't think we can get a ship through the space lanes anymore."

The Mayor turns to Captain McCormack. "What do you think, Captain? Can you get your ship back home?"

Mac sighs. "I don't know. We're all still monitoring the situation. But it sure doesn't look good."

The mayor panics. "Then we're all doomed!"

Which is a very distinct possibility. Everybody looks grim.

Act III:

At the radio telescope, Dr. Hanford and her people have some of their equipment back up and running, but not most of it, and not the radio telescope. They do have numerous conventional telescopes set up, though, and some of them are quite large. People are writing with pens on paper, which is a new experience for them.

Dr. Hanford is looking through the largest of the telescopes. She suddenly turns and looks at an assistant wearing headphones and says, "Anything?"

The assistant listens even harder. We see that they have jerry-rigged a small dish receiver aiming up into space. The assistant says, "Nope, not yet." He keeps listening, then his face lights up. "Got it." The assistant throws a switch and the sound comes out a speaker for everyone to hear.

"Come in Earth, this the Lunar Spaceport, do you read? Come back."

The assistant speaks into a microphone. "Lunar Spaceport, this is this is the Evergreen, Colorado Radio Telescope Station, we read you. Come back."

There's an audible sigh of relief from the Lunar Spaceport. "Thank goodness. Then communications are resumed."

"No, not exactly. We're receiving you through a hole in the space debris created by the exploding nuclear weapons. This hole won't last very long because we're orbiting past it . . ." Static build and drops, ". . . We'll be able to communicate for a few minutes everyday as our transmitter lines up with the hole, until the hole closes up, that is . . ." As the static builds up again the voices are lost.

"How long will that be?" asks the Lunar Spaceport. But the voice is gone. Everyone in spaceport control sighs.

One of the flight controllers says, "That's a sign of hope, don't you think?"

Everyone mumbles in the affirmative. Tom Hastings says, "But that's only as long as the hole lasts, which can't be all that long with all that debris, even in geosynchronous orbit."

Meanwhile, Mac is thinking hard. Sarah Simonson glances at him, then looks closer. "Mac? What are you thinking?"

He holds up his hands. "If they can transmit through the hole, why can't we fly through the hole?"

Everyone in flight control looks at him.

Tom Hastings says, "But they could only receive through the hole for a minute."

Mac says, "But the hole is at a stationary point and the receiver is moving past it as the planet turns. The hole would be stationary for us coming through it."

Tom shrugs. "But it's full of debris and radiation. Besides, without the radio telescopes on Earth, we can't plot a course through it for you."

"No." Mac grins. "Then I guess I'll just have to fly it by sight and intuition. Just like the old days."

The Mayor asks eagerly, "Do you actually think you can do it?"

Mac shrugs, "I don't know. But I started drinking the water I got out of my toilet today, and I was happy to get it. Do you want to stay here and die of thirst?"

"No."

"Then let's make plans to leave as soon as possible, while the hole is still open."

"How many people can you get aboard?" asks Tom.

Mac says, "We have five hundred lounges, but I'm sure we can jam at least that many more people in around them."

The Mayor says, "So that's a thousand people. There's nearly fifteen hundred people here right now."

Mac says, "Then smash 'em all in. We'll still be light because the water tanks are empty. But no one can take any luggage. Just what fits in their pockets."

The Mayor says, "Right, I'm on it." He turns and leaves in a hurry.

Mac turns to all the flight controllers. "I don't know how long this hole will last, so I say we leave as soon as possible. How soon can that be?"

Tom, the head flight controller, says, "An hour at our end, Mac. But it's getting everyone aboard that'll take some time."

"Then get everyone on it. Cops, baggage-handlers, everyone you can get in touch with."

"Right." People start to run.

Mac looks around the room. "And do we need any people to actually be here to allow take-off?"

Tom says, "Yes, just one. We'll need someone here to tell the people on Earth that we'll be landing or they won't be ready for us, there could well be no place to land, or anything could happen. But the ship won't be able to make that transmission in the middle of the debris."

Mac says, "Well, keep thinking about that, and who might be willing to stay." He turns to Lt. Simonson, "Lieutenant, go warm up the engines. I'm going to go get my family."

She salutes. "Yes, sir."

They both exit.

There is panic and confusion in the streets of Lunaville as the entire population makes their way to the spaceport. Abandoned dogs and cats don't know where to go. People with megaphones are saying, "Please proceed calmly to the spaceport. If you can't get your vehicle through, leave it and walk. Move quickly, but don't run. Once again, please proceed calmly to the spaceport . . ."

Mac is running in the opposite direction as the masses, pushing his way through the people. Before he even gets to his house he encounter his wife and children, all holding bags. He grabs his family and says, "Thank goodness. Quick, we've got to hurry." Mac tosses their bags away, then hustles them in the same direction everyone else is going.

There is an insanely long line of people building up in the terminal waiting to board the spaceliner. Spaceport officials are keeping everybody in order and getting rid of their luggage.

Mac, Jessica, and the kids arrive and he tries to push his way through the crowd. Mac says, "Excuse me."

People block his way, saying, "Who do you think you are?"

Mac says, "I'm the pilot of the ship."

Suddenly the crowd parts like the Red Sea, with people saying, "It's the pilot, let him through. For God's sake, let him through."

Mac looks at Jessica and grins, "Sometimes being the pilot's wife isn't so bad, huh?"

Jessica nods and begrudgingly smiles. "Okay, I'll give you this one."

As Mac and his family move through the crowd, people reach out and smack him on the back. They pass the spacelines officials who give them the thumbs-up and they board the spacecraft.

Mac secures a single lounge for his wife and kids, who must all three squeeze into it. Once you've been tranquilized it doesn't really matter how many people are in one lounge, but you can only smash two or possibly three small people into each one, which is a lot of the people, but not everyone. A couple hundred people will just have to lie on the floor between the lounges. Stewards and stewardesses attend to everyone, trying to make them as comfortable as possible.

Mac makes his way up to the cockpit. He runs into the head flight controller, Tom Hastings, waiting outside the cockpit door. Mac and Tom nod at each other.

Mac finds Lt. Simonson in the co-pilot's seat awaiting him. Mac takes his seat and straps himself in. Mac asks, "Everything okay?"

Sarah nods, "Everything's A-OK, Captain, no problems."

Mac nods, "Excellent. Did they work out the problem in the tower? Does someone actually have to stay behind?"

She nods, "Yeah. One person."

Mac shakes his head. "Did anyone volunteer?"

Sarah nods. "Yeah. One person. Me."

Mac is horrified. "*You?* You have to co-pilot the ship."

She shakes her head and disengages her belt. "You've got to fly this ship on your own, Mac. You don't need my help, or anyone else's. Tom Hastings is pilot, and with a lot more experience than me. But I'll get you through that hole, Mac. And I'll get you a clean landing, too. I know what needs to be done and I'll get it done."

Mac stands and takes her into his arms. "I love you, Lieutenant. You're my kind of woman."

Sarah's face is on his shoulder, tears streaming out of her eyes. "I know. If only I'd seen you first, but those are the breaks."

Sarah stands and quickly leaves the cockpit. Mac watches her go. Tom Hastings steps in and sits down in the co-pilot's seat. He looks at Mac, but Mac

is staring off into the distance. Tom starts hitting switches to begin the take-off procedure.

The 7007 Spaceliner taxis down the long runway on the moon. Mac and Tom sit in the cockpit. There are three times too many people onboard the ship, sitting in the aisles, smashed uncomfortably together, children on parents' laps.

Sarah's holographic image appears before the pilots. "Runway is clear and ready. Take-off at your discretion."

Mac says, "Roger that, tower."

The spaceliner pulls out onto the runway and begins taxiing. Lifting off from the moon, at one-sixth the gravity isn't very difficult, even with so many people aboard. The ship glides into the vast expanse of space.

Sarah says, "Mac, I'll calculate your course settings, which you can then set manually, and I'll get you into that hole for the best possible moment of re-entry."

Mac says, "I know you will."

Mac turns to Tom. "Get everyone you can crammed into the lounges and let's put 'em to sleep."

Tom stands, "Yes, sir."

The lounges have several people in them each, are closed, sealed, and the hiss of the sleeping gas is heard. There are still a several hundred people in the aisles, though.

Mac pushes the intercom button. "For those of you not in the lounges, I recommend lying as flat as you can, preferably on your backs, and with something under your heads for cushions. As we near Earth we will have to take a rather serpentine course, which will generate a lot of G-force, pressing you down. It's uncomfortable, but it's not fatal, and both of us up here in cockpit will be dealing with it, too, okay? But we'll all get through it just fine, so don't worry."

Tom looks at him, "A rather serpentine course'?"

Mac smiles, "Good, huh?"

Mac and Tom look up at their windshield which is becoming filled with the planet Earth and all of its shining, whizzing space junk that engulfs it in a sparkling, fiery cloud.

Tom says, "It doesn't even look like Earth. It looks like a different place."

Mac sighs, "It is a different place."

Sarah is in the flight tower on the moon. She looks at a clock closely, then pushes a button on the console. "Come in Evergreen, this Lunar Space Station, do you read?" Sarah keeps repeating this, then listening for a moment to the static coming back, then repeats it again. Finally . . .

"-unar Space Station, this is Evergreen, come back."

Sarah smiles and says, "Listen Evergreen, we don't have much time. The spaceliner is on its way back to Earth, and will be traveling through the very same hole we're transmitting through. It expects to be landing at Edwards Space Port, so please contact them and have them waiting. If there's any debris on the runway, please have it cleared. You will have to give the ship as much

information as you have on the shape and dimension of the hole through the debris as well as course headings as soon as you detect the ship coming through the hole. Did you copy all of this, Evergreen?"

Sarah lets up on the button, but all that comes back is static. Did they get it or not? She doesn't know.

Sarah contacts the ship. Her holographic head appears before Mac.

"Mac?"

He looks up and smiles. "Yeah?"

"I spoke with Evergreen, and they will be contacting you shortly, as soon as you enter the hole, with course headings through the hole. Also, the runway will be cleared and ready for landing at Edwards."

Mac and Tom both shake their heads and Mac says, "Good work, Lieutenant. Just what I needed to hear."

"Good luck, Mac."

"Thanks. And good luck to you, too."

"Thanks."

Sarah's head disappears, leaving nothing in their view but the debris-enshrouded Earth, which is flying up at them very fast. Mac reaches into his pocket and removes his bottle of pills. Tom sees them.

"What are those?"

Mac says, "My nerves."

Tom looks horrified. "You're kiddin'? Now you tell me?"

"It's not *that* bad," says Mac.

"But you need to take those pills? You want me to fly this thing?"

Mac shakes his head vehemently. "Hell no, I'm flying it. I don't need these damn things, it's just habit." He tosses the bottle of pills.

"You sure?" asks Tom.

"Sure I'm sure."

But of course he's not a 100-percent sure. Mac looks down at the controls which are on auto-pilot, then at his hands which are slightly shaking. Tom looks straight back at him.

Mac and Tom both glance up through the windshield. As they circle the Earth and it's shroud of junk, which is now orbiting past them, they see the opening to a glowing, snake-like hole through the debris which reveals a clear view of Earth.

Suddenly, Evergreen becomes audible.

"Come in, spaceliner, this Evergreen."

Mac answers, "Come in, Evergreen. It's good to hear your voice."

"Your's, too. We cannot compute a course setting for you through debris this small, we don't have the proper equipment running. You'll have to steer your course manually, spaceliner. We have, however, gotten you cleared to land at Edwards. Do you copy?"

Tom answers, "Yes, we do, Evergreen. Have you got any advice for going through this wormhole?"

But only static comes back, they've lost them.

But here comes the wormhole through the space debris that Mac must steer through manually. Mac takes over the controls and reaches out to press a button on the console, asks, "Ready?" Tom says, "Yes." Mac switches from auto to manual, and suddenly it's like a 3-D ride, but with extremely high G-forces, that smash Mac and Tom back into their seats and distort their faces. But Mac hangs onto the wheel and keeps steering through the wormhole.

Meanwhile, every now and then little bits of shrapnel come whizzing right at them and go ricocheting off, but luckily not through them.

The people lying on the floor of the ship and being mashed down like bugs and several people barf right back up into their own faces. Someone begins to choke and another passenger reaches out through the intense G-forces and turns the vomiting person's head to the side, thus saving their life.

It's a very hairy ride, and Mac looks like he's going to lose it a few times, but he doesn't and they make it through the debris.

As they appear over Edwards Spaceport, the landing crew is still clearing wreckage off the runways. Mac suddenly get the holographic image of the first flight controller on Earth, the black guy with the pointy sideburns.

"Mac, you're back. It's impossible."

"Oh no it's not," states Mac. "Is my runway clear?"

The flight controller grimaces. "Mostly. We just got the information you were coming a little while ago. We're doing the best we can."

Mac shakes his head, "Well, ready or not, here we come."

Mac brings the enormous spaceliner in for a landing on a long runway that still has bulldozers pulling parts of broken spaceships, wrecked ground vehicles, and other debris out of the way. He narrowly misses everybody, then pulls up to the walkway, which locks onto the side of the ship.

"Nice landing, spaceliner."

Mac releases the steering wheel. "Thanks, tower."

The people on the floor of the ship, many vomit-spattered, all with their hair sticking straight up, slowly stand. Tom pushes the button that releases the lids of the lounges. The sleeping people awaken, including Jessica and the kids.

One by one all of the passengers realize they're safe on Earth and begin clapping. Mac and Tom step out of the cockpit smiling and take their bows. They both shake hands. They made it.

Jessica and the kids run into Mac's arms. Mac holds onto them tightly, then slowly looks up.

Two months later on the moon, Sarah and all of the stray dogs and cats are living in the flight terminal. Most of the dogs and cats have already died of thirst. Sarah is just about to. Her lips and tongue are white. She speaks one last word which comes out mostly as dry croak. Sarah says, "Mac," then her eyes roll back in her head and she dies.

On Earth Mac stands in the backyard of his house looking up into the sky. The moon is obscured by all the twinkling junk, but it's still there. Jessica steps

outside, sees Mac, steps up to his side and puts her arms around him. Mac puts his arm around her, too, but keeps looking sadly, painfully, longingly up at the moon. Jessica sees this, but pulls him tighter. Mac keeps looking up.