### **Abandoned**

#### Jack English

#### **Chapter One: Space Will Try to Kill You**

Space will try to kill you. No matter how good your technology or how fancy your ship, space will try to kill you. And just as gravity never sleeps, space never stops trying to kill you.

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Alistair Godfrey stood in one corner of the bridge of the spaceship *Falkland* wearing grease-covered overalls. His hands were dirty and there was a dark smudge on his cheek.

He watched quietly as the Captain Titus Talbot finished his tea and chatted up Ensign Swan, her tight-fitting uniform hugging every curve in her finely-sculpted body.

Everyone on the bridge was finely sculpted. They all wore the same light grey, form-fitting uniform. The single wide, white stripe running down their arm from their collar to the end of their sleeve provided the only visual accent. And of course, badges of rank were pinned to everyone's collars.

They were all perfectly dressed, every strand of their hair perfectly placed, and they all had a perfect complexion. *But*, Godfrey thought, *I'll bet* 

none of them has ever taken apart a plasma manifold, fabricated a field coil, or cobbled together spare parts to build an energizer when the book said it couldn't be done. Their hands never got dirtier than needed to write computer code.

"Don't touch anything!" a lieutenant scolded Godfrey. "We try to keep the bridge clean."

"Captain," the navigator said, "there is a star along our route that has a forty percent chance of going supernova in the next month." The navigator was Commander Lois Childs, a thirtyish woman who wore her hair up in a twist.

"Recommendation?" Talbot asked.

"Alter course so we get no closer than two light years."

"How long will that delay our mission?"

"About three weeks."

"How sure are we that the star will go supernova?"

"Astrometrics is ninety-nine percent confident the star will go supernova. But, estimates of when it will go supernova vary. Their best estimate is a forty percent chance while we pass through its solar system."

"I don't see the risk," Captain Talbot said.
"We're doing ten times the speed of light. If it goes supernova, we can outrun it. Right?"

"We can outrun it if it is next to us or behind us. But what if it's in front of us? We can only detect a supernova detonation from its radiation or gravity waves. They reach us at the speed of light. When a supernova goes off, it ejects several hundred Jupiter's' worth of mass, traveling at a good fraction of the speed of light. Theoretically, it could detonate and we wouldn't know about it until we ran into the debris field."

The captain glanced at Ensign Swan. The way her uniform flexed when she walked was almost erotic. She was holding a silver tray.

"Scones?" she asked the captain.

The captain took one and tasted it. The ensign held the tray in Commander Lois Childs' direction. She plucked a scone off the tray.

"I don't see the risk," the captain said. "We'll be through the danger zone in a blink. Let's cut through that star system as planned and save ourselves three weeks."

"There is one more thing, Captain."

"What's that?"

"Stars tend to spasm before going supernova. They throw off some enormous coronal mass ejections."

"How enormous? Details, Childs, details!"

"Any one coronal mass ejection could contain the moon's worth of mass. If we plow into one..."

"We won't. Thank you, Commander, but you are overthinking the situation. Let's just get on with it, shall we?"

"Very well, Captain." Childs made an abrupt about face and as she did, she caught sight of

Godfrey. He could tell from the expression on her face that she was not happy about the captain's decision.

The captain saw Godfrey and motioned him forward. "Don't they do laundry in Engineering?"

"The message said to see you immediately, sir. I thought it was an emergency."

"Is that an excuse? Where is Boscum?"

Boscum was the Chief Engineering Officer.

"Commander Boscum is in his quarters. He has the flu, sir."

"He had the flu yesterday, and the day before, and last week. What's the matter with him?"

"I don't know, sir. Should I ask Medical to take a look at him?"

"I gave Boscum a list of things to fix and they still aren't done, so I'm tasking you. I know I'm jumping the chain of command, but like you said, Boscum has the flu."

The flu was a polite way of saying someone was either hung over, strung out on drugs, or suffering from a space psychosis, often the result of being cooped up in a spaceship for long periods of time.

"The output on the number four fusion reactor is two percent below norms," the captain said. "We tried to fix it with software, but it's a problem we can't fix with code. The food replicators in the number two galley aren't working properly. They are dispensing protein paste, but it's not being fabricated into roast beef, hamburgers, or fish and chips, so it tastes like crap. That's bad for morale. Finally, the toilets in the aft game room are backing up. See what you can do about that, and for God's sake take care of the food replicators before you work on the toilets."

"Yes, Captain."

"And Godfrey, next time you are on the bridge, wear a clean uniform."

"Yes, Captain."

#### **Chapter Two: No Chance of Help**

Commander Lois Childs, the navigator, would have made a better captain than Titus Talbot, but Talbot was from one of the first families. First families were among the first to colonize a new planet. That meant they were usually able to grab land and wealth. The mission of the *Falkland* was to find a new planet to colonize. Sky surveys identified a new, probably-habitable, planet some thirty light years beyond humanity's farthest outpost. They were two-thirds of the way there. They were also far beyond any hope of rescue if something went wrong.

Captain Talbot couldn't conceive of anything going wrong. All his life, the road ahead had been smooth for him. He'd never had to face an existential crisis. He had never even had to raise his voice in anger. There was always someone standing in the wings to set things right. *Does he realize*, Godfrey thought, *how far out on a limb he is? Does Captain Talbot realize this far from home, there would be no help if he flipped the wrong switch or set the wrong course?* 

One of the chief reasons that ships have strong, experienced executive officers is to second guess the captain. An executive officer is supposed to ask relevant questions and assure that a captain makes considered judgments before endangering the ship. The *Falkland's* executive officer, Digby Blane, wouldn't be any help. He was also from one of the first families, and the only reason he was on the ship was to secure his fortune. There was a rumor that he cheated and bribed his way through the Academy.

Lois Childs, on the other hand, came from nothing, earned a scholarship to the Academy, and graduated fourth in her class of eleven-hundred. She was clearly unhappy about cutting through a solar system where a star was about to go supernova. If she had been the executive officer, a job for which she was fully qualified, she could have argued with Talbot. If she had been made Captain, another job for which she was fully qualified, she would have changed course and avoided the risk.

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Godfrey took the number four fusion reactor offline to let it cool, in case he had to replace some

of the internal parts. He ran through a month's worth of data and found two problems. One of the plasma injectors had eroded from the constant bombardment of high-energy neutrons. He made a mental note to check all the injectors on all the reactors. The other problem was an anomaly in the microwave emitters needed to raise plasma to the temperatures needed to drive fusion. He hoped that was the problem, because he could simply swap out a high-current circuit board.

The food processers were a different kettle of fish. Or, rather they weren't fish, or any other recognizable food -- just protein paste. Getting food synthesizers to produce something edible was as much art as it was science or engineering. Protein paste had to be flavored, texturized and molded into recognizable shapes. Starches and other additives were mixed in at the right stage to improve texture and mouthfeel. Flash-frying added to the sensation one was eating real food – and not simply replicas of food.

Godfrey had set up his own shop and lab in a void he found in the ship's interior. It was between crew quarters on one side and sewage tanks on the other. In theory, the space was supposed to be used for pipe and cable runs, but there were several spots along the length of the void that were wide enough to set up his own private shop and lab.

When he wasn't doing ship's maintenance, he was inventing. His latest invention married up a

DNA analyzer with a molecular-level fabricator. With a little coaxing, it could synthesize almost anything: medications, quantum circuit boards, and even food. For the last month, he had been trying to fabricate a cheesesteak. He had the cheese nailed and the steak was getting better, but he just couldn't get the focaccia bread. He thought he might use what he learned to get the ship's food synthesizers working again, and maybe even enhance them. His master project, however, was synthesizing coffee -- real coffee, not the instant dreck dispensed in the galley.

He had just sampled his latest coffee run. It was pretty damned good and at a molecular level, it would be nearly impossible to distinguish from real coffee. He packed up his tool kit and was about to head for the number two galley when he was thrown hard against the aft bulkhead and knocked out.

## Chapter Three: Star light, star bright, first star I hit tonight

Godfrey woke up in the dark. A couple of different alarms, each with their own distinctive and annoying sound, were going off. He had a pounding headache. He felt his head; it was covered by a sticky fluid. He assumed it was blood. Something poked into his back. He felt

around and figured out he was laying on the floor, on top of a wrench the length of his arm. The cold metal of the wrench was putting a crease in his back.

As his eyes adjusted to the dark, he saw a few faint glimmers of light. He struggled to his feet and felt around. He was in his makeshift shop. Something had cut the power to the lights. He switched on a piece of equipment. The display provided enough light for him to look around. He made his way to the hatch that led to the ship's main passageway. No one was around. He checked the computer terminal mounted on the wall of the corridor and turned off the alarms one by one.

He punched the comm panel. "Bridge? What happened?"

There was no response.

"Bridge?"

"Engineering?"

Again, there was no response.

He could hear alarms sounding in other parts of the ship.

What he didn't know was that the ship had impacted a coronal mass ejection from the star the captain Talbot didn't think would go supernova. Stars at the end of their life frequently belched several planets' worth of high-energy particles into space before going supernova.

One might expect a CME, a coronal mass ejection, to be a thin, almost gossamer veil of gas.

But when a ship hits it at ten times the speed of light, it induces enough stray currents to drop it out of warp. Once out of warp, every gas molecule acts like a grain of sand tearing away the hull until there is nothing left.

Sensors picked up gravity waves from the mass ejection too late maneuver out of the way. The forward third of the ship collided with the CME and simply ceased to exist. The middle third of the ship had been reduced to a hulk of melted and twisted metal, plastic, and carbon fiber. The rear third of the ship was mostly intact.

It took a while for Godfrey to figure out what happened. Luckily, he was in the rear third of the ship, but even there, people weren't spared. Most of them were broken and bleeding, and a few were already dead. There was little he could do. He accessed the computer through a wall terminal and shut down all the alarms.

For good or ill, Captain Titus Talbot had been in the rear of the ship when it slammed into the CME. Commander Lois Childs, the navigator, was also in the rear of the ship and survived. Digby Blane, the executive officer, was on the bridge and now his troubles were over for good.

Godfrey heard a moan and looked down the hall toward the aft of the ship. A man was laying on the floor groaning. He had a compound fracture; bone was sticking out of his arm and through his sleeve. "Stay put," Godfrey said, "and I'll find a doctor."

As he said it, he watched a thin band of plastic slide down the hall toward him. It couldn't have been more than four or five centimeters high and a meter long. It stopped opposite them, then continued skittering down the hall toward the bridge. A few seconds later a plastic bag came floating by, headed in the same direction. That was followed by a couple of puff balls of fiberglass insulation.

He followed them down the long, curved hall until he came upon a spot where the ceiling had collapsed. The plastic strip, bag, and fiberglass were snugged up against a pile of debris that reached from floor to ceiling. More trash and plastic got snagged on the debris.

Hull breach! he thought. Somewhere beyond the collapsed corridor there was a hull breach. The ship was venting atmosphere and pulling trash along with it.

He glanced back toward the emergency bulkhead. It was supposed to slam shut in the event of an emergency. It hadn't. Godfrey had recommended that the emergency bulkheads be closed when the ship was in warp. Captain Talbot had said that was the stupidest thing he had ever heard.

Godfrey walked back to the bulkhead. Why didn't it close? It was on its own separate circuit.

There was no power to the bulkhead. He pulled off the access panel and found a note. It was signed by Boscum, the Chief Engineering Officer. It said, "Circuit breaker needs replacement." Godfrey stared at the junction box. The space where a circuit breaker should have been inserted was empty. There was no way for current to reach the bulkhead door motors.

He stripped some wiring out of the comm system to bridge around the missing circuit breaker. Nothing happened. After a few seconds, he realized power had been turned off to the circuit somewhere down the line until the circuit breaker was replaced.

He connected the bulkhead motors to the corridor's lighting circuit. The doors began to move, if slowly. Bulkhead motors were high-voltage, high-current affairs designed to slam bulkheads shut. The lighting system was relatively low voltage and low current. The bulkhead was half closed when the corridor lights flickered and went out. The emergency lights clicked on. They cast long, surreal shadows on everything.

Godfrey pulled another panel off the wall and found the emergency lighting system. He connected its battery to the bulkhead door motors. The doors began to move again, but much more slowly.

The closer the doors got together, the greater the speed of the air escaping between them. Pieces of plastic and tufts of insulation whizzed by.

The doors came within a hand's width of closing and the emergency lights flickered. The battery that powered the lights was running out of juice. He ran down the corridor and pulled most of the LED lights out of their sockets, hoping that what little battery power remained would be enough. The bulkhead doors crept closer together.

Meanwhile, more trash and debris were sucked past him toward where the bridge had been a few minutes before. A small container wedged itself between the doors, preventing them from closing. The doors held the container tight, squeezing it from both sides. The wind whistled between the doors, now only a few centimeters apart. He looked for something he could use to dislodge the container.

He had removed several wall panels to access the bulkhead door motors and find something to power to them. There, inside the wall, he found a long, thin metal rod. It seemed to be a diagonal support for something. He pulled it out and used it to push on the container holding the door open. The container shattered and the doors snapped closer together, but they were still held a finger's width apart by a fragment of the container. He rammed the fragment several times with the metal rod. More debris floated down the corridor, driven

by the current of air being vented into space on the other side of the bulkhead door. His hands were cut and bleeding from gripping the metal rod so tightly. Finally, he gave the fragment one last shove, and it gave way. The bulkhead door slammed shut on the metal rod. Using all his remaining strength, he pulled the rod out and the bulkhead doors sealed. A fragment of insulation that had been floating down the corridor drifted to the deck.

# Chapter Four: Captain, my captain, where are your pants?

Looking back toward the aft end of the ship, Alistair Godfrey could see lights. He checked on the man with broken arm.

"How are you doing?"

"Oh, God it hurts. Get me a doctor; get me something for the pain."

"Let me see what I can find."

Two sets of corridors ran down the length of the ship. One on each side of each of the ship's four decks. Several transverse corridors ran across the ship from the port to starboard corridors. Godfrey saw light from one of the transverse corridors. He jogged in that direction looking for help. There were two more bodies in the transverse corridor. It

wasn't clear how they died, just that they were dead.

When he got to the main corridor on the other side of the ship, he found the captain standing there with no pants on.

"Captain, are you OK?"

"Ensign Swan..." he pointed toward an open cabin door. It was clear he was in shock.

Godfrey stepped into the cabin. Swan's body was lying awkwardly on a dresser, and blood spatter covered the mirror behind her like she had been hurled against it with enormous force. She was dead. Swan was the perfectly-formed ensign who had been serving the captain scones a couple of hours earlier.

"What happened, Captain?" Godfrey asked.

"I... we were just..." Nothing else came out his mouth. He just pointed to Swan's cabin.

"What happened to the ship?"

"Ship? I don't know." He wandered, dream-like, to a computer terminal on the wall of the corridor. "Bridge?"

There was no response.

"Bridge?"

Again, there was no response.

"Damage control?"

Nothing.

"Engineering?"

Nothing.

"What happened?" the captain asked Godfrey.

"No idea." It was then that the captain noticed he wasn't wearing pants. "Give me your pants!"

"I can't, sir," Godfrey said. "I need them to save the ship."

"Oh." That seemed to assuage him. He was still in shock.

Commander Lois Childs came toward them.

"What happened, Commander?" Godfrey asked.

"It was the supernova. I warned him not to cut through this solar system," she pointed to Talbot. "The instruments say we plowed into a coronal mass ejection. As near as I can tell, it vaporized the first third of the ship. The middle third is a mess. There is no one alive forward of bulkhead twentytwo. We've got to evacuate."

"Abandon ship?" Godfrey asked. "Isn't that the captain's call?"

Childs turned toward the captain, "Sir, where are your pants?"

He pointed back toward the cabin where Swan had met her untimely demise.

"We've got to go. Let's go!" she pulled Captain Talbot's arm.

He shuffled forward.

"We've got a man down in the next corridor," Godfrey said. "We can't leave him behind."

"We got to go!" Childs repeated. "Get him if you can."

Godfrey knew the layout of the ship as well as anyone. It was designed with a lot of built-in

redundancy. It had seven fusion reactors, any one of which could power all the environmental systems. The excess power was used in the warp drive. The reactors were spread along the length of the ship, on alternating sides so that if an asteroid or meteor struck there would still be plenty of power. The layout of the corridors and bulkheads were designed to allow movement throughout the ship even if there was a major hull breach. Crew quarters, dining rooms, and most other facilities were spread out for the same reason. There was even a backup engineering office. The one thing they didn't plan for was the total evacuation of the ship.

The *Falkland* had four shuttles, each with twenty stasis pods. But the ship had a crew of one-hundred-eighty and was carrying five-hundred colonists. So, in the best of times, only a fraction of those on board could be saved. The argument for fewer shuttles was that the ship had so much redundancy, abandoning ship was unthinkable. It was arrogant thinking. Now it would be time to pay the price. The other three shuttles were forward of bulkhead twenty-two and had probably been destroyed.

Godfrey found the man with the broken arm. He had nearly passed out from the pain. "We got to go! Can you stand?"

"I suppose."

Godfrey helped the man to his feet. The injured man moaned in pain. They hobbled down to the lighted transverse corridor and then back up the main corridor to the hatch leading to the shuttle. It was closed.

Godfrey banged on the glass porthole. "Open up!"

Captain Talbot was on the other side of the glass saying something. Godfrey couldn't hear a thing.

Commander Childs reached over and switched on the commlink.

"No room!" Talbot said.

"What do you mean, no room?"

"No room. We've got to go. We'll send someone to get you!" Captain Talbot turned away from the porthole. He was still dazed and he still wasn't wearing pants.

Childs stepped up. "Godfrey, you're a good man. You deserve the truth. The math is simple and harsh. We have twenty stasis pods and there are twenty of us in here. We are twenty light years beyond the farthest human outpost. On their very best day, one of these shuttles can do a third the speed of light. That means the best we can hope for is to return to civilization in sixty years. The only chance of doing that is in stasis. There is only so much space in the lifeboat. I'm sorry."

As she said it, the shuttle unlatched from the *Falkland*. Maneuvering thrusters backed the shuttle off. A halo of debris surrounded the ship

and shuttle. Once clear of the debris, the main engines opened wide up, and in a matter of seconds, the shuttle was gone from sight.

Alistair Godfrey struggled to support the man with the broken arm, but it was no use. The man was dead. And he had been abandoned.