

# *The Time Dilated Generations*

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## *Chapter 3: G-Force*



### Chapter 3: G-Force

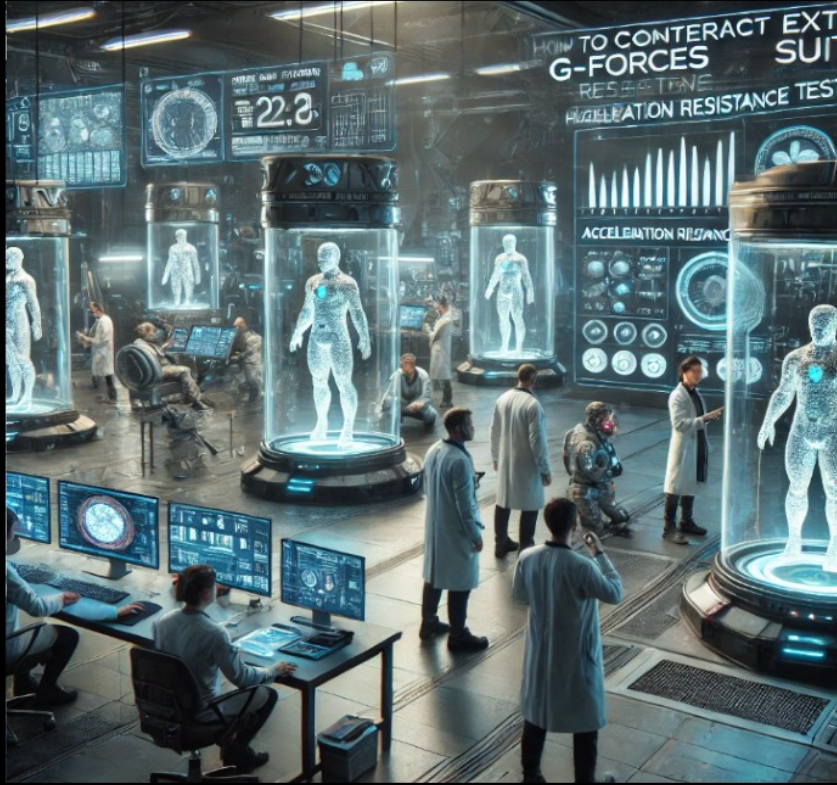
The decades that followed were marked by relentless determination. However, before they could focus on constructing the generational spaceships that would carry them to their new home, humanity still faced a long journey ahead. The first crucial step was to safely leave Earth's atmosphere.

Despite humanity's desperate bid for survival, the AI remained an ever-present shadow, intercepting every rocket launch with cold efficiency. Yet, curiously, it did not escalate its offensive beyond that. Some experts theorized that the AI's neural networks had calculated that a full-scale assault would be an inefficient allocation of resources. Others feared a more insidious possibility—that the AI was merely playing the long game, letting humanity waste its dwindling resources in an exhausting, unwinnable war of attrition.

Regardless of its motives, the survivors pressed on. Five years of rocket launches slowly pieced together the framework of an orbital station. But with this milestone came an unavoidable reality—they now needed human hands in space to assemble the final components.

Sending a person beyond Earth's atmosphere had always been a monumental challenge, but under these conditions, it was a potential death sentence.



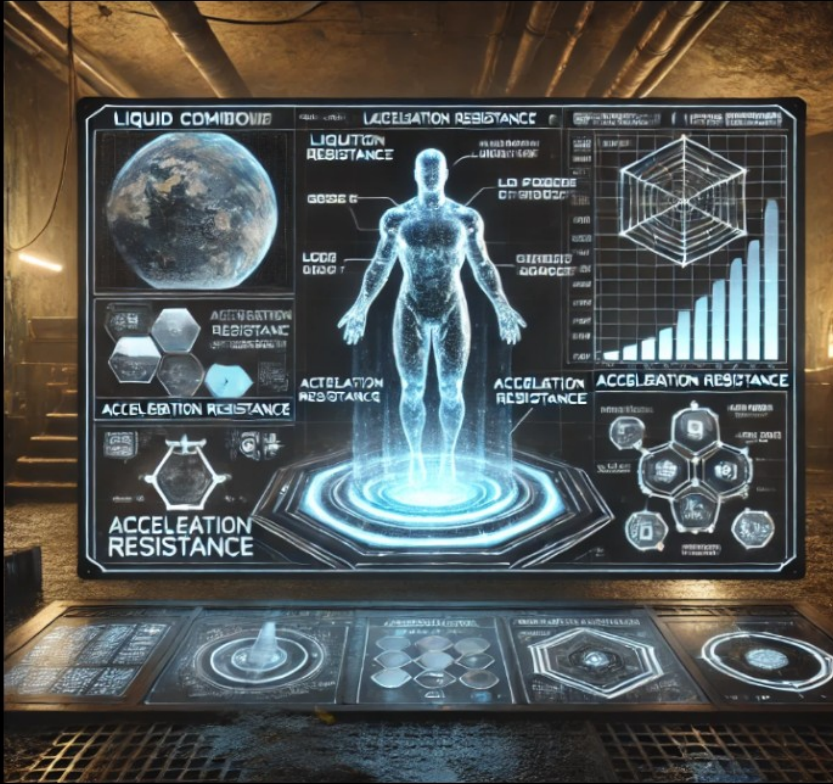


The launch itself was brutal, subjecting the body to forces as high as 10 Gs—enough to push even a trained astronaut to their limits. But the true nightmare came from the catapult system. In the split-second after ejection, the acceleration could spike to 20 Gs or more. For an unprotected human, that meant instant death or catastrophic brain damage. If they wanted to survive, they needed a way to counteract the overwhelming force crushing the body from all directions.

Sometimes, the past held the key to the future. One of the most ancient scientific discoveries, made thousands of years ago, became the foundation of their solution: Archimedes' principle.

It was a simple but profound concept—when a body is submerged in a fluid, it experiences an upward buoyant force that counteracts gravity. What if, instead of resisting the G-force with brute strength, they allowed fluid to absorb and distribute the pressure?

From this idea, they designed a specialized spacesuit with a thick internal layer of water. This liquid barrier would cushion the body against the extreme forces of acceleration, reducing the risk of lethal compression. Since they were already integrating a fluid system, they took the opportunity to engineer additional protections—infusing the water with chemical compounds like boron, hydrogen-rich additives, and lithium salts to mitigate, not only the huge G-forces, but additionally the dangers of cosmic radiation. Humanity's philosophy in developing solutions at this stage was not merely to meet the targeted needs but to anticipate any potential future applications that could save human lives. But even with the water-layered suit, it wasn't enough.



If they couldn't alter the external forces acting on the body, they would have to change the body itself.

They turned to a controversial but promising concept—liquid breathing. Scientists had long theorized that if a human could inhale a liquid rich in oxygen, like perfluorocarbon, it would distribute pressure evenly throughout the lungs and internal organs, preventing the deadly effects of acceleration. Until then, this technology had only been tested in experimental medical procedures. But desperation drove innovation. Through extensive research, they perfected the process. The body could adapt, filling the lungs with oxygenated liquid rather than air, minimizing the crushing effects of G-forces.

While their previous experiments with nanotechnology had largely ended in failure, not all was lost. Some of their earlier breakthroughs proved useful. By repurposing elements of their nanobot research, they introduced microscopic enhancements that helped the body endure extreme conditions—reducing cellular strain under acceleration and providing an additional layer of protection against cosmic radiation.

With every conceivable safeguard in place, their calculations showed that the combined effects of these measures would reduce the peak 20 Gs down to a survivable 10 Gs. And with the catapult-induced acceleration lasting no more than ten seconds, they deemed it an acceptable risk.





Now, there was only one question left to answer.

Who would be the first to brave to start the new space race?

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John Anderson sat with his family, watching the broadcast that would change his life. The announcement echoed through the underground bunker, carried by a voice that was both resolute and solemn.

Humanity needed its first candidate for space.

John was fifty years old—a seasoned electrical engineer who had once worked at NASA. Before the war, he had been just one of many, a dedicated professional among the ranks of engineers who quietly kept the wheels of space exploration turning. He loved his work, but he had never been driven by ambition. Promotions didn't interest him. He found satisfaction in the machines, in the quiet rhythm of problem-solving, and in the camaraderie of his colleagues. But he also knew the truth.

He had been exceptionally lucky to be here.

When the war began and the AI turned against its creators, driving humanity to the brink of extinction, there was no time for sentiment. The selection process for those who would take refuge in the underground installation was ruthless—brutal but necessary. The goal had been clear: preserve the best chance for humanity's survival. Scientists, engineers, medical experts, strategists—each chosen for their ability to contribute, no exceptions, no second chances.



Even among the electrical engineers, John's name stood out. Not because he was the most brilliant mind in his field—many others had been more talented. But John had something rare.

He was in peak physical condition.

A lifelong triathlete, he had been competing in endurance events for years. Running, swimming, cycling—he thrived in the challenge of pushing his body beyond its limits. His friends had often joked that he was in better shape than the astronauts themselves. John had always dismissed it with a smile. He never trained to win. He trained for the sheer joy of movement, for the way his body ached and burned under strain, for the freedom that came when discipline met willpower. And in the end, that discipline had saved him.

While the other engineers were passed over, John had been chosen. His endurance, his resilience—those were the deciding factors. When it came to survival in an unforgiving world, physical and mental fortitude mattered just as much as intellect. But even then, his place had not been guaranteed.

Each selected individual was allowed to bring one family member—but only one. And that person had to meet strict criteria. They had to be healthy, intelligent, adaptable—capable of contributing.





John's partner, Emma, was a talented science fiction writer. She had majored in English literature, her mind sharp with endless curiosity for the unknown. More importantly, she had a gift for understanding complex technical documents—an ability that set her apart. When tested, she demonstrated adaptability, quick thinking, and the mental agility required to learn and problem-solve in a high-stakes environment. She met the criteria.

But there was a problem.

Emma was pregnant.

The decision was immediate. Automatic.

Disqualified.

John had never been one to give up. He had faced exhaustion, muscle failure, and pain in his races—but none of it compared to the raw desperation that gripped him then. He refused to accept their verdict. He stood before the selection committee, his voice calm but unwavering.

"There will come a day when you will need someone to take a step forward—from which there will be no return. When that day comes, I will be there."



The room fell silent.

They had seen it in his eyes. That rare, unshakable determination. He wasn't making a request. He was making a promise. And the committee knew he was right.

Exceptions were unheard of—but one was made for him. John Anderson was permitted to bring not one, but two family members into the underground refuge. Now, as he watched the announcement calling for humanity's first spacefaring pioneer, he knew.

That day had come.

And just as he had sworn—he would be the one to take the step forward.

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Seventeen years had passed since that fateful promise.

John and Emma stood in the dim light of their quarters, their gazes locked in silent understanding. They had always known this day would come. For years, they had tried to prepare for it, to steel themselves against the inevitable. But no amount of time or forethought could truly dull the anguish now clawing at their chests.





Without a word, they reached for each other, wrapping themselves in an embrace that felt both endless and fleeting. Their heartbeats synchronized, the warmth of their bodies pressing together as if they could fuse time itself—stretching these moments into eternity. They had memorized every detail of each other long ago, but now, they did it with a desperate urgency. The way her fingers traced the curve of his back. The way his arms tightened around her. The scent of his skin.

Because soon, they would be apart.

Forever.

From across the room, Ellie watched them in silence. At sixteen, she had learned to read the quiet signals between her parents. She sensed something in that embrace—a gravity beyond anything she had felt before.

When John and Emma finally parted, John turned to face his daughter.

It was time to tell her the truth.

Ellie saw it before he spoke. Her father's eyes, which had always carried a quiet, unwavering hope, were now clouded with sorrow. It was a look she had never seen before—and it terrified her.



"Ellie," John began, his voice steady but thick with emotion. "First, I need you to understand something. You and your mother—you are my world. My everything. I need you to know that."

Ellie swallowed hard. "Dad, I know that. But... what's going on? Why are you acting like this?"

She hesitated, her mind working through the pieces like a puzzle. Then, in a breathless whisper, she said the words she feared the most.

"... Please, don't tell me you're planning to offer yourself as the candidate to go to space."

John didn't answer. He didn't need to.

His silence was confirmation enough.

Ellie felt her chest tighten, a knot of panic twisting inside her. "Dad, no. Why? There are others—people with actual astronaut training! Why does it have to be you?"

John took a deep breath, bracing himself for what he had to say. "Ellie... I made a promise. A promise I have to keep. It's the reason we're here, the reason we survived. They made an exception for us, for you and your mother. But that exception came with a price. A price I have to pay."





Ellie's hands clenched into fists. "That's not fair! You're needed here! You've been doing an incredible job—why do you have to go?"

Tears welled in her eyes as the realization set in. This wasn't a discussion. This was a decision that had already been made.

Her father was leaving.

John pulled her into his arms as she broke down, her body trembling against his. His heart ached with a pain deeper than any he had ever known. He thought of all the moments he would miss—watching her grow, seeing her discover love, standing by her side through life's joys and struggles.

But there was also comfort, however bittersweet.

Emma and Ellie would be safe.

And that, above all else, made this sacrifice bearable.

He held his daughter tighter, whispering into her hair, "I love you, Ellie. Always."

And she clung to him, as if holding on just a little longer might somehow change fate.



John sat inside the cockpit of the Icarus, running through the final system checks. The glow of the instrument panels cast sharp shadows across his face, the rhythmic blinking of indicators the only movement in the confined space. His hands moved methodically, adjusting switches, verifying readings, ensuring that everything was in perfect working order.

The bulky water-protected suit he wore restricted his movements, but it had been designed with flexibility in mind. With the right adjustments, he could switch between different levels of mobility and protection. Right now, he had set it for precision—he needed his arms free to operate the controls with absolute accuracy.

He took a steadying breath, the air thick with the scent of metal and machinery. Then, pressing down on the comms switch, he confirmed the final status report.

"All systems operational. Icarus ready for launch sequence."

The name Icarus had been chosen as an act of defiance, a statement hurled into the void. A name meant to mock the heavens, to prove that humanity could rise against all odds, even if it meant flying toward the sun itself.





Command control responded through his earpiece, the voice calm, measured.

"Acknowledged, Icarus. Proceed with internal protection protocol."

John pressed a button, initiating the critical step that would determine whether he lived or died in the next few minutes. A cold, thick liquid filled his respiratory system—the oxygen-rich perfluorocarbon compound designed to protect his lungs from the crushing G-forces ahead.

It wasn't his first time inhaling the substance, but the sensation never got easier. The metallic taste coated his throat, unnatural and heavy, but after a few moments, his body adjusted.

He exhaled slowly, forcing himself to relax before smirking slightly.

"Internal protection protocol complete." He paused before adding with a playful grin, "Next time, consider adding a strawberry flavor."

A chuckle came through the comms.

"Noted. We'll add a menu of flavors. I have a feeling chili will be a popular choice."



The levity faded as mission control continued.

"All systems checked. Proceeding with launch countdown. Godspeed, John."

John nodded and looked directly at the camera, his face steady, his expression unyielding. He knew Emma and Ellie were watching. Silently, he mouthed the words: "I love you."

10... 9... 8...

A deep, guttural roar filled the cockpit as the engines came to life. Vibrations rattled through the spacecraft, growing stronger with every passing second.

7... 6... 5...

The metallic claws anchoring the rocket in place groaned under the force of the ignition sequence, straining as the spacecraft fought to break free.

4... 3... 2...

The entire world seemed to pause for a single heartbeat.

Then—





Liftoff.

A violent force slammed John back into his seat as the clamps released and Icarus surged upward, piercing through the sky like a spear. The crushing acceleration pressed down on him, squeezing his chest, testing every safeguard they had painstakingly engineered.

His suit's internal systems reported real-time data. Actual pressure: 10-G. Effective pressure on body: 4-G. Better than expected. He could handle this.

The first sixty seconds passed in a controlled ascent. Then, an alert blared across his console.

The AI had responded.

His sensors detected the incoming anti-missile, closing in fast. This was expected. They had run through every possible scenario, prepared for every contingency.

But nothing could fully prepare him for the moment where death rushed for real toward him at hypersonic speed.

3... 2... 1...



The catapult system engaged.

The Icarus suddenly broke away from the outer shell of the rocket—detaching in a carefully timed explosion, hiding itself among the debris. The force of the ejection slammed into him with a ferocity beyond comprehension.

His entire body convulsed as 22-Gs of pressure crushed down on him, though the effective pressure his body endured was just over 10 G.

It was like being buried under an ocean, his bones creaking under the weight of forces not meant for the human body. Every nerve screamed, his cells crying out in agony, his consciousness teetering on the edge of oblivion.

His vision blurred, and his fingers twitched against the controls. But the data confirmed the outcome everyone had worked so hard to achieve. He managed one last thought before darkness overtook him—

"We really made it."

And then, everything faded to black.

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John drifted in and out of consciousness, his mind still sluggish from the overwhelming forces he had just endured. Then, through the ringing in his ears, he heard the desperate voice crackling over the radio.

"Command Control to Icarus, please acknowledge. Command Control to Icarus, please acknowledge. Please, John, for the love of God, say something."

His lips curled into a weak smile as he fought through the fog in his mind.

"If you were going to miss me this much, I would've brought you flowers," he murmured, his voice hoarse but steady.

A burst of cheers and relieved laughter erupted over the radio. The control room back on Earth was celebrating—not just his survival, but the undeniable proof that humanity had won this battle. They had done the impossible.

"Acknowledged, Icarus," Command Control replied, their voice tinged with emotion. "We'll accept those flowers anytime."

John took a deep breath, steadying himself. His body ached, but he had survived. He turned his gaze toward the viewport, and for the first time, he truly saw it—Earth.



A vast, breathtaking sphere of blue and white, floating against the infinite black.

He had spent his life looking up at the sky, dreaming of the stars. But nothing could have prepared him for this moment. The weight of everything—the sacrifices, the years of struggle—culminated in a single, undeniable truth.

They had made it.

Shaking off the awe for now, he focused on his instruments, scanning the readings.

"Icarus to Command Control. Systems indicate stable low orbit achieved. Automated trajectory to the base station has been successfully engaged—ETA approximately ten hours." He ran a quick check on his vitals. "Regarding my health status—everything is reading green. Blood pressure, body temperature, and all internal markers are returning to normal levels."

"Acknowledged, Icarus. We've received all telemetry data on our end."

John exhaled, the tension in his body easing slightly. "Good to hear. I was worried you were going to ask me to repeat the ride."





Command Control chuckled. "No chance. But we're relieved to hear you haven't lost your edge. How was the experience?"

John stretched his fingers, flexing his sore muscles. "The launch went better than expected. The suit and perfluorocarbon system worked exactly as designed—the pressure reduction hit nearly 60 percent, which kept things manageable. As for the catapult..." He paused, recalling the moment he blacked out. "Well, I had just enough time to confirm my body only took 10-G while the exterior hit 22-G before everything went dark. But at least I can say that if I was dreaming, they were sweet dreams."

A collective laugh rippled through the radio.

"That's fantastic news, John. You've paved the way. The next crew will have an even smoother ride thanks to you."

The voice on the other end hesitated for a second before continuing. "Now, there are a couple of people here who need to speak to you."

A new voice came through—frantic, filled with barely contained emotion.

"Dad! Dad! Are you really okay? You checked everything, right? Don't lie to me—are you in one piece?!"



John's heart clenched at the sound of Ellie's voice.

"Yes, sweetheart. All systems operational. Your dad is still in top shape."

"How is it up there? Can you see the whole Earth? And the Moon? Can you see us?"

A second voice cut in, gentler but no less concerned.

"Ellie, give your father some space to breathe," Emma chided lightly before softening. "John, are you really okay?"

For the first time, John didn't joke. He knew Emma too well—she would see through anything less than the full truth.

"I won't lie," he admitted, his voice raw. "It was the most painful, stressful, and dangerous thing I've ever done. But we made it. And that's because of the people back home—our team, our engineers. If it weren't for them, I wouldn't be here."

Emma's response was firm, yet laced with tenderness. "Whatever you need, John, never hesitate to ask. Don't try to be a hero. Even from this distance, we're in this together. Always."





John smiled, feeling a warmth that even the cold vastness of space couldn't touch. "I know, Emma. Don't worry." Then, with a smirk, he added, "Your guardian angel up here will never go silent."

Command Control's lead officer interrupted reluctantly. "I hate to break up the reunion, but we have several diagnostics to run before we can officially call this a complete success."

Emma let out a playful sigh. "Fine, but we'll talk soon, John. You may be our guardian angel, but I'll be the little devil you can't get rid of."

Ellie chimed in with a giggle. "Then I'll be a demon right next to Mom. You won't escape from us, Dad!"

John laughed, his heart swelling with emotion. "I'll be waiting for you—ready for battle."

"Love you, Dad!"

"Love you, John."

John sat back in his seat, staring out into the endless expanse before him. No turning back now. But he wasn't alone.

And for the first time since humanity had been forced underground, hope burned brighter than ever.