Unar520 Sometimes Houston *is* the problem

WRITTEN AS A 'NOVEL IN A DAY' ON OCTOBER 20th 2012 First published 2012

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Introduction

Blake Snyder, Hollywood screenwriter and author of the bestselling "Save The Cat" writing guides, used to test his ideas out for new movie scripts on unsuspecting members of the public in coffee shops around LA. People would question his advice, asking "aren't you worried someone will steal your ideas?", to which he'd reply something along the lines of "only amateurs worry about that".

Last year I learnt exactly what he meant. You see, I wrote a novel in a day. Well, to be precise, I wrote it with 23 other people. Each person was given a really brief precis of what was to happen in their chapter and precious little else. Using that, we wrote a tale called "The Dark".

I was in the privileged position of having written the overarching story, yet still it was really eye-opening to see how each of the writers took that opening premise in a completely different direction to what I would have done myself. I find it fascinating to see just how much writers inject their own style and imagination into a piece. It illustrates so well just how little a part "having an idea" plays in the finished piece. The author's creativity comes out in every single word.

So we're trying it again, and I'm really excited to get it finished (luckily it will only take a day), because I really can't wait to read it and find out what happens.

I hope you enjoy the book.

Tim October 20, 2012

Lunar520

CHAPTER ONE by Ron Ward

A woman's clear voice rang out. "We have all the updates in from yesterday's event. Excellent work, from everyone in the crew, you are really coming together as a team. I have recorded improvements in every simulation we have run this past month."

Morris's sweet voice chewed on Michael's nerves. "What is the female equivalent to Morris anyway? Morrisette, Morrasina, there is no opposite. Morris needs only one voice.

"A confident male that would be soothing to me," Michael thought, "no question about where you stood. In a crisis a familiar confident tone keep the troops focused, every good commander knows that! Who needs a chirpy woman coddling their emotions? This is not the right place for you if need a mommy to take care of you. Well Ryan may need a little mothering, running off to be with his wife at every chance." Michael felt his wicked smile fall into place, he waiting until Nicola noticed his grin before forcing it back under control. The pilot let himself pretend the two of them had shared a private joke ignoring her reproving scowl.

Static broke in to the quiet, followed by Tom Carr's voice. "My team here at Mission Control agrees with Morris's assessment. You have the basics down pat boys and girls. I know many of you were looking forward to an easy day.

"We are ahead of schedule. In light of this unexpected circumstance, we are going to leap ahead a step and up the ante on you all. This may be a little stressful. My team thinks this scenario may need more than one run through so we scrapped our previous schedule, replacing it with today's event. This will allow for a second run though of this important episode.

"Someone want to change my mind? Good, no excuses, that is why you lot were chosen, that can do attitude. I need you to all settle in while we reset a few things. Since we need to see how you will respond I cannot tell you what the threat will be. Be vigilant we are loading the new parameters. The training will begin as soon as Morris shows ready."

Jacob looked around the training orbiter looking for signs of

stress? As commander if anyone failed he failed with them. "Relax team; remember to breath, I expect you to come though this with flying colors. We are going to be in space a long time together and I cannot imagine a finer group to go there with."

Jacob noticed Nicola studying the crews faces with a casual scrutiny. The underlying fierceness of her stare was a mark of her dedication. Ryan focused on his readouts. Dr. Taylor looked like he was in his easy chair at home. Only Michael looked like a man heading into danger. Mental note, remind me to invite our pilot to a poker game.

"The updated scenario has been successfully loaded into the computer. All your vital signs are nominal, break a leg my friends, today's event is now underway." Michael rolled his eyes as Morris finished her announcement.

There would be a period built into the trial designed to loll the crew into more realistic state. The mission controllers warning that they would be severely tested today would have to be nullified for any real data to be gathered. That meant a lot of boredom.

The chatter of a normal day was missing. The crew was more stressed than they showed. What was dad's old saying "Fake it to make it."

Half an hour passed and no situation, nothing but routine reports, and casual exchanges with CAPCOM. Commander Rhodes looked up from his report, his crew reporting this as a normal day. Michael's shoulders were bunched they had been tight all morning. Jacob was a little concerned; this was late in the game for a psych breakdown. Bringing in an alternate now could only cause problems with the chemistry the team had fought so hard to forge.

"Michael, why do you roll your eyes every time the Morris finishes a speech?" Jacob wanted to gage the level of stress in his pilot's voice.

"I do not think it is every time commander, besides there is nothing I can do about it," said Michael

"Are you sure about that?" Jacob replied.

"Since you brought it up I don't like the female voice and her soothing tone. Seems wrong-headed in a situation like this. If we hear Mrs. Morris everything is copacetic, if Old Man Morris comes on stuff is going down. I would just like to hear one voice, a commander's voice, maybe your voice or Tom Carr's voice, no matter the situation. I think it would help me stay on an even keel. Maybe I have been in the service to long, I have been

conditioned." The man let his trademark smirk grace his lips for a second.

"Everyone hear that? We have one no vote for Morris having two personalities."

"I'm sorry, **Dave**. I'm afraid **I can't do** that." Ryan chimed in sounding extremely calm.

"There is no one here named Dave." Michael shot back a little hot for Jacob's taste.

"It is a movie ref," a claxon cut off Nicola's response.

All eyes returned to their readouts. "Hull Breach," Morris's voice was strident and very male. "We have passed through a small shower of ruble. The skin was not able to repulse all the projectiles. Besides the hull breach there has been secondary damage to communications panel 3a. We are losing air and pressure. Outside scans do not reveal any further danger."

"You like that voice better Michael?" Jacob asked

"No, see that is my point now everyone is frantic just because Old Man Morris read off the bad news then fades into silence." Michael replied.

"Can we find the hull breech from the impact to Panel 3a?" Dr. Taylor asked. Jacob winced, that should have been his question.

This situation was getting off to a bad start.

"If the computer has that data loaded we should be able too." Ryan's head turned back toward his screen. "Nice, those guys think of everything, trajectory data right where it should be. Our rotation should bring us around so that we see the sun shining through the hole in three minutes. I am going to release and float up." Ryan said excitedly.

"A little thick with the roll play, no floating today," Michael said under his breath. Nicola gave him a harsh look; the pilot regretted his snarky mood. He wondered why he was so down on Ryan today. Going on like that would land him back in eval, Nicola would probably recommend it now anyway.

"If you want to see some evidence of our breach, watch that wall," Ryan said pointing up and behind his head a little. The engineer turned in his seat watching the wall. A tiny dot of light moved from the floor up the wall crossed the damaged panel and then disappeared.

"What is the situation?" CAPCOM's voice erupted out of the speakers. Everyone covered their ears.

"I will have to tell them to turn down the volume at debrief today." Jacob said aloud, making another mental note.

"Mission Control we have run through a debris field, one of the meteors has pierced the hull. Ryan has identified the entry area. There is also damage to communications panel 3a which is likely the cause of you only now receiving the damage alert. Our computer will have had to reroute communications." Jacob took a breath.

"Engineer Jarvis will climb up to repair both areas of damage. I will take over Ryan's station while the repairs are being done. No one was hurt during the event." Jacob stopped short feeling like he had forgotten something. The commander ran a check list in his head, "what did I miss".

"Where is the projectile?" Shit, that was it the missed question.

"As of now, we have not found it sir. The projectile might have disintegrated upon impact." The commander could not keep his voice free of disappointment for forgetting the foreign object update. Any outside material could have adverse effects on the mechanics and especially the electronics.

"Keep looking might be a small treat in it for you."

"Dr. Taylor, Ms. Haven, would you please look around the cabin see if you can find the projectile." Jacob knew there would be no further need to motivate; the word treat was heavy incentive

in their Spartan training regimen.

"Cake I bet we can exchange the meteor fragment for cake." Pete looked very happy at the thought of cake. The good humor was infectious.

"Can I get by Dr. Taylor," Ryan asked. The older man was on hands and knees looking under the engineering station. The engineer had a bag of small rubber balls in assorted sizes. The repairman's job took a fair amount of agility. Even in zero g there would be a lot of bending and stretching involved.

Ryan was only two steps up the ladder in the wall when sparks blew out of the "damaged" panel. The man ducked to cover his eyes and let the tiny bits of molten metal sting his neck. "Cool they think of everything." The engineer said aloud.

Morris broke in again, "Commander Rhodes I regret to inform you that panel 3a has been further damaged. A short has further crippled our communication abilities. You will need to enter your command code and verify the priority order in the communication folder. I have sent a message to Mission Control detailing the diagnostic. Please review this file as well and make any addendum you may deem necessary."

Morris seemed a bit off normal in his vocabulary choices. The

commander let the anomaly slide. If he remembered he would inquire if a vocabulary upgrade had been done on the interface. Right now duty called, Jacob finally had work of his own in this scenario.

Ryan reached the damaged panel. The man twisted in his stance looking nearly directly behind himself. He took out one of the little rubberized balls. Poised like a circus acrobat he waited. The spot of light appeared. Ryan could see exactly where the breach had happened. In space he would release half a dozen of the balls. In space a breach would help guide the balls to their target. After the breach was sealed he would gather the unused balls for next time. In this simulation he only needed to hit within a foot of the breach to have the computer count it as a save.

The rubber ball arched across the orbiter and blocked out the light for a second, like an eclipse. The engineer was ecstatic, on the first try. In space the ball would be sucked into the breach. The specially designed liquid metal compound would allow itself to be partially sucked into the hole. Upon contact with the much colder temperature outside the capsule the liquid metal would cease to move. The force of pulling would bunch the elastic lining up creating a very tight seal. Still reveling in his accomplishment Ryan reached up to panel 3a. The cover was battered in, a tiny hole at the center of the damage. The engineer shifted longing to be weightless; earth gravity pulled him toward the floor. In space there would be no need for clinging on so tightly. Ryan reached into his pocket for a screwdriver. The screws were difficult to remove with the extra force of the damage pulling the cover against the metal of the screw.

Ryan undid the two higher screws first. He undid the bottom right screw then carefully loosened the last screw so that the panel would fall open. That would give best access to his right hand. Leaving one screw in would keep the panel from floating about the cabin. A smile crossed his face. "Doctor you can quit looking, I found our debris"

The engineer took something out of the bottom of the recessed panel. "Who wants the Stegosaur, and who wants the Brontosaurus."

"What do you mean?"

They left a family of tiny plastic dinosaurs in the panel. One for each of us I am guessing. Since I climbed up here I am taking the Triceratops, but the rest are up for grabs."

"Stay focused, we are being evaluated every second." Jacob said a little more sternly than he intended. "We are losing air the stuff we breath, they are probably really sucking out our air to see how long until oxygen deprivation begins to show symptoms.

It was unwise for the testers to put toys in our scenario, everyone is under stress. I get it trying to lighten the mood, still. Just pocket the toys. We will sort out who gets what once we have our ship back in working order. Now back to work everyone let's look sharp. "

"Sorry sir, nice touch though, who doesn't like dinosaurs." Nicola said coming to Ryan's defense.

"Who indeed," Michael muttered under his breath, earning himself another caustic look from the science officer.

"I can see the trouble sir," Ryan said

"Looks can be deceiving," Morris said with less emotion than usual.

"Now Morris is being philosophical, don't worry I am going to bring it up in debrief, Morris does not seem to be himself. Ryan can you fix the damage up there? What should I report?" Commander Rhodes said.

"We are going to need a Xa1477b board with a ghogh translator

chip."

"Where do we get one of those?" Michael asked, thinking the mission was now doomed.

"Sounds exotic but they are used in a lot of military communications devices these days. The board and chip combination is fairly standard equipment. Easy enough to replace, this scenario seems too easy. We should have three in my repair cupboard. Nicola since you are relatively free, can I get you to open the cabinet next to my station. I can tell you where I stash my replacement boards. I will just pull."

The light dimmed then flared. Ryan flew away from the wall, an arc of electricity playing along his arm, the tiny lighting following him nearly all the way to the floor. Claxons screamed both inside and outside the Orbiter. Ryan fell into Nicola both sprawling on the floor of the cabin.

"Out of the way, Out of the way," Dr. Taylor pushed past Jacob who was feeling out of control for the first time in a long time. "You alright dear" he said reflexively to the science officer knowing Ryan would have to be his first priority.

"Yes, what happened?" Nicola asked.

"Failure to follow procedure is my best guess," Michael said, all

his doubts about Ryan rushing to the fore.

"He might be dead, Michael," Jacob said. "Dead! I will try to get him to apologize from the grave."

"Catastrophic failure, Catastrophic failure, medical staff requested. I have sent a damage update to Flight Control." Morris fell silent.

The door of the vehicle opened. Two grim faced young men from the medical staff rushed in. Dr. Taylor looked back at them, "reciting as if on command, breathing on his own, heart is beating but irregular, I am going to need a splint."

"For which appendage sir, one of the young men asked?"

"Left arm," the doctor moved so the EMT could get a better look. The boy winced and looked away. Commander Rhodes leaned over the young medic balancing on his shoulder. The skin of Ryan's left arm was torn open two jagged bones sticking out. Dark thick blood oozed out of the wound. Burn marks ran up his broken arm from the electricity.

Ryan stirred then cried out. "What happened, why are you all looking at me?"

"You got shocked by something," Dr. Taylor started

"Electrocuted more like," Michael said "Not your fault,

probably, glad you are not dead."

"Bad news though son, your left arm has two compound fractures. Both Radius and Ulna, you are not going to be playing piano any time soon."

"I play Trombone," Ryan said confused

"Not for a while you won't," Nicola said, sounding a lot like Mrs. Morris.

Realization hit the injured man. "I am off the mission, aren't I? I am grounded"

The doctor, Nicola, and Commander Rhodes shared their own look of realization. This could only mean delays and the schedule was tight already. Jacob stood and led Michael out of the cabin speaking to him in very low tones.

Delay could be the end for this team. None of them wanted that. Sympathy for their wounded comrade turned to concern for their own futures very quickly.

"I am going to try my best son, you are a great engineer. You belong in space." Pete tried to keep his voice from betraying him. "Here is the splint Doctor," the EMT said.

"Change of plan I want to get him to the medical facility. Bring that gurney in, since he is conscience we can get him comfortable

while we work on that arm." The EMT's wrapped the wounded man up tightly with practiced precision. Once the patient was secure they began moving him out of the training capsule.

"I am off the mission, aren't I? I am grounded" Ryan said again eyes forced tight against the tears. The engineer looked up to the observation gantry. Tom Carr was looking down at the people gathered in the simulation area. The man had a concerned look on his face. In a smooth motion he turned, put a cell phone to his ear, and began talking as he walked into the shadow.

CHAPTER TWO by Charles Dow

It's been a long day, but it's finally almost over Henry thinks. One last interview, and then he will have done everything that he can. Of course then it will be out of his hands, and that will be a whole new type of stress, but he is tired of always 'being on' and performing in countless interviews.

Henry walks to the office door for his last interview where he notices the placard reads: "Dr. Bauer - Doctor of Psychology". Oh great, another mental examination Henry thinks. What else could this guy possibly ask him that he hasn't already been asked by 7 other NASA psychologists?

Disappointed by this revelation, but determined to continue, Henry is about to knock but pauses when he hears voices from within. There are two people talking very loudly, it sounds like an argument, but the voices are muffled. Henry wonders if he should walk away or put his ear to the door for a better listen. Before he can decide, the door swings open and narrowly avoids slamming him in the face.

"Holy shit! What are you doing?" The woman from behind the door screams at him.

"Sorry! I'm here to see Dr. Bauer." Henry stammers before continuing. "My name is Henry Page. I have an interview at 16h00."

"Great, do I look like his secretary or something? Take a fucking seat and wait for him to come out." The woman says, never breaking stride while walking past him.

"Of course, sorry." Henry stammers.

The woman hurriedly walks off leaving Henry with the feeling of having done something wrong. What is her problem Henry wonders. He walks to the corner of the narrow corridor and sits in the small plastic seat. His grandiose vision of NASA has long since past because of offices like this. He had imagined some high tech offices with huge LED screens everywhere and maybe even zero gravity break rooms. The reality however is cheap carpeting, plastic seats with no cushioning, and a lot of cubicles, not much different than a typical insurance company's office. Hopefully the money

NASA has saved from not refurnishing this office since the 70's has been invested in the station I will be on, Henry thinks.

After all this time, it's easy to let the fantasy grow to unrealistic proportions, only to have it come crashing back to reality. How long has it been? Years of education, months of training, weeks of mental and physical examinations, and now finally the last days of the selection process. He has dreamt of this for practically his entire life, and now only Dr. Bauer separates him from his dreams.

The door to the office opens again, this time at a much slower pace and by a much older person.

Dr. Bauer appears from behind the door. He moves slowly and methodically, as though each step has been calculated with the utmost precision. This contradicts his disheveled appearance; his grey hair is unkempt, his clothes are old and wrinkled. This must be the topdown affect that NASA has on its employee Henry thinks to himself.

"Mr. Page, I hope you have not been waiting long, please come in." Dr. Bauer motions towards his office.

"Dr. Bauer, it's nice to meet you. Please, call me Henry."

"Please take a seat Henry, and don't worry this shouldn't take very long. I've been told you are one of our top candidates." Dr.

Bauer says while staring intently at Henry, as though he can't possibly imagine why Henry would be one of the top candidates.

It doesn't matter how many of these exams he goes to, Henry always feels like he is put on the defensive as soon as he enters the office. That must be part of their tact - Put him on the defensive, get him on their heels, it must be easier to get information from him this way Henry thinks.

"That is good to hear, it would be nice to be out of here before 19h00 for once. If I'm going to spend the next year and a half 2,000 kilometers above the earth, it would be nice to have an early night every now and again." Henry says.

"Indeed it would. If you ever figure out how to accomplish that, please do be sure to let me know." Dr. Bauer smiles at Henry. "Alright, on to more important subjects, namely - You. Please tell me a bit about yourself Henry. How did you become interested in NASA, why did you join?"

Henry pauses for a moment before answering, he knows even softballs like these are sure to be scrutinized to an incredible degree.

"Science has always been a huge part of my life. My father was the CEO of one of the largest pharmaceutical companies in the

world, and my mother a senior scientist at the same company. They placed a large emphasis on the pursuit of science for my brother and I."

Bauer doesn't immediately respond, instead he regards the files in his hands, as though fact checking every word that Henry has said.

"Why NASA though, why not pursue pharmacology like your parents?" Bauer looks up from his file and directly at Henry.

Asshole, you know why I didn't pursue pharmacology Henry thinks to himself.

"It just didn't interest me as much as space. Pharmaceuticals just doesn't have the same allure as space I guess." Henry responds.

"You mentioned your brother earlier, what happened to him?"

"He was hit by a drunk driver in his first year at university. He was in a coma for a few weeks, but eventually the doctors said he was brain dead and they pulled the plug."

"How did your family handle that?" Bauer asks.

"It hit all of us hard, but my father took it the worst. He started working around the clock at the office, he rarely came home. One day he told my mother he was going on a business trip, and we never saw him again. He disappeared for 2 months, before turning

up dead in a motel in upstate New York. He overdosed on medication his company made; I've heard that joke a few times."

"I'm sorry, that must have been painful for you."

"It was hard, but I got through it. I was 18, and in my last year of high school when it happened. After that I went to university and got a fresh start. I ignored everything and everyone that reminded me of my brother or my father. My mother had the worst time of all. She lost her son and husband, and she was worried she would lose me too."

Bauer makes another note in his notebook: 'Possible abandonment issues'

"Of course, it must have been difficult for her as well. How is your relationship with her now?"

"We still talk, but things have never been the same, how could they be? I think she resents that I left her alone to pick up the pieces. I don't blame her, but I was a kid, I didn't know how to deal with that."

"Is that something that still bothers you? Have you ever talked with her about it?"

"No, it's been too long now. I don't want to rehash the past -It's done enough damage."

"I understand, but often times people feel the need to reconcile these things before undertaking something like this. Moving along, what is your status today? Wife? Children?"

"Girlfriend, and no kids."

"Is that something that interests you?"

"It's not a priority for me right now."

"Maybe not now, but this is a long term mission. Are you willing to put your life on hold for this? Is She?"

"No offense, but I'd be willing to go out on a limb and guess you don't have a wife and kids at home either. This isn't exactly the type of job that welcomes that sort of thing."

Bauer seems a bit taken aback, but he quickly recovers. "No. No, I guess not. How does your girlfriend feel about this?"

"We have been together for 4 years, and have discussed it a lot. She understands, and I think she will be fine while I'm away."

Bauer scribbles in his notebook: 'Repeating abandonment cycle'

"What about friends, do you have many? How is your social life?"

Henry thinks pauses to think for a moment, as he is more than a bit rattled by the way that this interview has gone thus far. Most of the interviewers have asked questions about his past, but haven't focused on it quite so much.

"I do have friends, but I don't get to see them very often anymore. This job has taken over my life in the last few years, and I don't get out as much as I used to. I guess, in a way, that the last few years have been a meditation in human isolation. I've put everything that I have into this, and probably at the expense of just about every other aspect of my life. If I don't do this, it'll all have been for nothing."

There is silence for a long moment while Dr. Bauer ponders this, before answering.

"I wouldn't worry about that Henry. From what I've heard you are a lock, and nothing I've seen here today will change that. In fact, I've heard everything that I need, so it looks like you will get that early night you were looking forward to."

"Great, thanks Doc. Nice meeting you."

Henry breathes a sigh of relief as he gets up and shakes Bauer's hand. He pushes all the thoughts and feelings that Bauer brought up back where they belong - out of his mind.

"Nice meeting you too Henry. Best of luck."

"If you don't mind me asking, who was that woman that came storming out of the office before?" Henry asks. "Oh, Christine? She is the head of the department. I'm sure it will have seemed odd to you, but once you get to know her, well let's just say that what you saw is not an uncommon occurrence for us in the department."

Dr. Bauer shows Henry out of his office and watches as he walks back down the long corridor. Bauer walks back to his desk and looks at his writings in the notebook.

"Christine was right, he is perfect for this mission." Bauer says to himself.

CHAPTER THREE by Sue Cowling

Henry had trouble containing his excitement. He felt he wanted to jump up and down and shout out his news to the world. He contained himself, he knew he had to speak to Emily first, and he was late meeting her. He walked faster, across the car park, towards the beach. It was quiet, today, no one was out surfing or playing on the sand, the summer was turning into autumn, and there was a chill in the air, it would be perfect to have some privacy to talk to Emily. He felt really nervous, he wanted this so badly, he just hoped that Emily understood this need in him.

Trudging over the sand, he turned over the phone conversation he had just finished. He could not wait to share his news. Looking up, Henry could see Emily in the distance, sitting at the water's edge on a low rocky outcrop. Her blond hair tied back in a ponytail, allowed him to see her thin but attractive face. He felt his heart miss a beat, just as it always did when he looked at her. It had always been that way, ever since he had first seen her at the emergency room, when he had injured himself while messing about on his motorbike.

It had taken him a while to convince her that he really did like her. Being wealthy while she had so little had created so many issues, not on his part, he could not give a dam, but for her it mattered. Emily had a lot of pride, would not accept help in any way. He was hoping to change all that today.

It was as if she had sensed his presence, looking up to meet his eyes, as he got closer to her. He saw the smile that broke that worried look, and almost felt her relax with relief he was there.

"Hi Emily" even to him his voice sounded shaky, he was having problems containing the news, he knew he had to get this right first time, no room for mistakes. He lowered the picnic basket he was carrying to the ground.

Emily rose and run to him and they hugged closely.

"Henry, you're late, I was beginning to think you were not coming. What kept you so long?" Squeezing her tightly, he kissed her long and passionately.

"I had a phone call it took longer than I expected. I am so

sorry love to keep you waiting. I should have called you on your cell phone."

He led her over to the picnic box, pulling his jacket off and wrapping it around her shoulders to keep her warm. The wind was quite chilling this closer to the water.

"Are you going to be warm enough?

Smiling she nodded her head.

He opened the hamper and got out the rug, laying it out on the sand, while she watched him. Then he got out the picnic lunch he had just picked up at the local deli, and finally two champagne glasses and a bottle of chilled champagne.

"Let's sit and have our picnic and I can tell you everything that's happened."

They settled down on the rug, and Henry popped the champagne, pouring it into the two glasses, he handed one to Emily.

"Woo" Emily laughed, what is this for?

Clearing his throat, Henry looked at Emily and finally she saw the excitement in his eyes and the huge grin.

"I got it; Emily I really did it, the job I applied for, all those interviews, I got the job. I am the Engineer on the Lunar520

mission. I will be going into orbit for 520 days, part of a team to test the effects of a prolonged time in space. This is in preparation for the Mars trip. Who knows, maybe I will get a chance to go on that too."

He paused, looking to Emily for a reaction, expecting her to mirror his excitement. What he actually saw made his stomach sink. Instead of the excitement he had expected, Emily sat there with tears running down her cheeks. When she spoke it was not what he expected.

"You will be gone for 520 days that is a long time Henry. I suppose in my heart I never really expected you to get the job."

He looked at her aghast.

"I told you I was going to go for it. It is the one thing that I have always wanted to do, travel into space, you know that." He looked at her, "I thought you would be happy for me?"

Emily was sobbing now.

"I am happy that you got it for you, but not happy that you will be gone for so long." Taking a deep breath, trying to control the crying, she carried on, "Also how safe will it be, suppose you never came back to me, what I would do then?"

Henry laughed.

Trying not to spill the champagne, he put his arms around her, and held her tightly.

"Emily listen to me, this is a once in a lifetime opportunity for me. I am going to be the engineer on the expedition, don't you think I will be concerned about safety, not just for me but for everyone else on the spacecraft. Don't you think that every person involved in this will want it to be successful?"

Emily sighed, giving a shrug. For the first time in their relationship Henry felt irritated with Emily's attitude, but then felt a rush of guilt, knowing she was just upset. It was the old Emily, putting distance between them trying to insure she would not get hurt, he was guessing.

Trying to lighten the situation, he raised his glass. He knew what he had to do next.

"Emily, I know this is going to be a long time apart, but I do love you." He paused, drawing a deep breath, "There is no one else that I want to spend the rest of my life with, to have children with, I want you to be my wife, will you marry me Emily?"

Emily gasped in surprise, not expecting that to happen.

Henry waited patiently, letting her take it all in, confident of her reply. So confident that he pulled a small box from a corner of

the hamper, flicking it open with his thumb to expose the largest diamond ring Emily had ever seen.

Emily just stared at it, unable to take it all in. Then angrily she pushed it away from her.

"You think it is so easy, just say yes, be your fiancé and wait for you while you jaunt away into space, maybe never to return. All my life that is what has happened, people let me down, leave me. I don't know if I can do it anymore. Why should I be second fiddle to your job, I don't care how exciting it is." She paused, "Anyway I have news for you too, I was going to wait, but maybe now we need to talk about it."

Henry was shocked, it had all seemed such a straightforward plan, ask her to marry him, go to space, then come back get married, live happily ever after. Then he picked up on her words, news? What was she going to tell him?

"What is it Emily? Tell me love. I am never going to let you down, I will be back and we will have a life together. I promise you."

Emily hesitated, and then spoke.

"I am pregnant with your child Henry..."

That was not what Henry was expecting; he stood up, throwing

his glass to the ground, and walked to the water's edge, staring out to the horizon. There were a million things going around in his mind, the trip, the proposal, and this news about the baby. Suddenly he realised that he had everything he wanted here on earth. He desperately wanted to do this trip, to have his moment of glory. To be able one day to tell his son or daughter, that their father had gone to space. But, he did not need to do it; he could say no and stay here. He did not want to lose Emily or his child.

He turned, ready to tell Emily what he had decided. Only to find her standing there, watching him.

Walking towards him, she asked:

"It will be about eighteen months', you would be away." A statement, more than a question, "I suppose that would give me time to set up a nice home for your return. You would miss out on all those woken nights with the baby, but I am guessing you could see him on some time of communication screen?"

Reaching him she held his glass out again to him, refilled.

"Let us toast your trip, our baby and our wedding." Emily smiled, "How could I ever stop you doing this, it is your dream, and you are mine, I have you, and you must have yours. Cheers Henry."

Henry laughed, and took the glass, swilling the drink in one gulp.

"To us, to our child and our future, and to space, it will go by in a flash, and then we will have our whole future together." He grinned excitedly, he could have it all, and he would. Life was looking good, very good.

"If you're really sure, let me make that call to NASA and tell them I am all set to go."

CHAPTER FOUR by Pete Becker

"Good morning, ladies and gentlemen and my fellow Americans. I'm Greta Paine, Chief Administrator of the National Aeronautics and Space Administration, and, as you probably know, I'm here with these brave astronauts to kick off America's return to space. It's been nearly half a century since Neil Armstrong walked on the moon. Today these men and women at the table beside me will take the next step along the path that he first blazed, reaching out into the cosmos to explore the limits of human endurance, and helping us prepare for mankind's most ambitious exploration to date, putting the first humans on Mars. While this trip won't take this crew to Mars ..."

"Blah, blah, blah", thought Henry. Same old tired political speeches, same old do-nothing managers, claiming credit for the efforts of the people on the line who did the real work. But at least

she had the decency to mention Neil Armstrong, one of the true pioneers of space exploration.

The heat from the television lights and from the large number of reporters who had crowded into too small a room in the hope of latching on to some bit of trivia that they could blow out of proportion so they could claim that their coverage was better than anyone else's made the air uncomfortably warm. Henry's mind, already numbed from the introductory speeches that had gone on for half an hour, drifted with the heat back to the summer day more than twenty years ago when he had first decided that he would go into space.

He and his cousin Niall were in the treehouse in the back yard. A year older than Henry, Niall seemed worldly and ambitious. Henry felt lazy, sitting on the floor, leaning against the wall, and enjoying the heat. Niall wanted to pretend that they were Apollo astronauts, making the first landing on the moon. Naturally, Niall would be Neil Armstrong; after all, he had the same first name, and back home in Indiana he went to Neil Armstrong Elementary School. Henry would be Buzz Aldrin, and the two of them would leave their capsule, step down onto the surface of the moon, and explore. Henry said he'd rather be Michael Collins, and stay in the capsule while Niall explored.

"That's no fun. Let's go!" Niall grabbed Henry's arm and tried to pull him to his feet. Henry twisted his arm and broke Niall's grip. Niall staggered backwards, arms flailing, trying to find something to grab to keep his balance, but without success. He fell backwards through the door. Henry jumped up, ran to the door, and looked down at Niall ten feet below. His head was twisted at a funny angle ...

An elbow in his side brought him back to the present. The reporters in the room were all looking at him, apparently waiting for him to say something. Flustered, he managed to say, "I'm sorry, can you repeat the question?" The laughter that followed seemed friendly enough, and one of the reporters said, "Sorry to wake you up. I just wanted to know your feelings as you prepare to depart on such a great adventure."

Henry paused for a moment. He'd prepared for that question. "In an interview shortly before he died, Neil Armstrong was asked if he would like to go back into space, as John Glenn had done. His answer was 'If they offered me command of a Mars mission, I'd jump at it.' I'm not Neil Armstrong." He paused to let the

laughter die down, then continued, "but I'm excited to be part of the team that will make his dream come true."

The questions and answers droned on for another ten minutes or so, with no more questions addressed to Henry. Finally, Greta stood up and announced that the press conference was over; the crew had to finish preparing for the launch. Henry and the rest of the crew quickly stood up, waved to the cameras, and left the room through the back door.

The snap of the colder air in the private corridor behind the press room jolted Henry from his lethargy. He was going into space! Not Mars, well, not this trip, anyway, but space! Niall had dreamed of space. Of course, he couldn't go, but Henry would do it for him.

The crew members walked quietly down the corridor, perhaps realizing, as Henry did, that these few moments were the last unstructured time they'd have before the start of their mission. They had a few minutes to say goodbye to their families and friends, and once that was done, everything they would do for the next seven hours had been scripted by the mission planners and would be carefully monitored by Mission Control.

Henry's aide opened a door marked, simply, C20. Henry went into the small room on the other side. He took a deep breath and let it out slowly. He was alone. A bit later there was a discreet knock on the door, then it opened; it was his aide again, but this time with Emily. She came in, and the aide, like every good butler, quietly closed the door, leaving Henry and Emily to whatever they wanted to do in the few minutes before the mission formally began.

Henry stepped over to her and put his hands on her hips. But as he leaned down to kiss her he felt her forearm pushing against his chest. He stepped back. She looked down toward his feet. After a few seconds of strained silence he asked, "What's wrong?"

"Oh, Henry, I'm so sorry. I wanted to say this before, but I just couldn't."

More silence, still looking down.

"Say what, Emily?"

She reached into her pocket and pulled out a small envelope. She pushed it into his hand, turned, pulled the door open, and ran from the room.

The envelope had something hard and round in it. With a feeling of dread, Henry opened it. Inside was the ring that he had

give her, along with a note.

Dear Henry,

I'm sorry to do this like this. I can't stand the thought of being alone for a year and a half while you're up in space. I know what this trip means to you, and I don't want to be in the way. I'm sorry. I hope the trip goes well. I wish you all the best.

Emily

Henry slowly crumpled the note into a little ball. He pulled open the flap over his left breast pocket; the zipping sound of the Velcro made him think that if he was in a bad novel the sound would be the tearing of his broken heart. Nevertheless, he put the note and the ring into his pocket and closed the flap over them. He pulled open the door to the corridor and signaled to his aide that he was ready to go. Henry's training had been good. He did everything he was supposed to do to prepare for the launch, mechanically, without needing to think. He wasn't aware of time passing. He went through his checklists, interrogating other members of the crew, and marking off the items as they were confirmed. Still, he was shocked when the noise and acceleration of the launch hit him. As three g's of acceleration pressed him into his couch, he could almost believe that the ring in his breast pocket was pressing painfully into his chest. But that was probably his imagination.

CHAPTER FIVE by Ioa Petra'ka

They say that once we reach the L5 point, humanity will be returned to us. This magical spot where the forces of gravity are quelled between Earth and Moon, this place where our little tin world can reside in peace. I know only a little of the physics involved in this supposed truce. I know that the moon will drag us along like a loyal pack of dogs would, tethered between that and the greater pull of the Earth. Out there, now only hours away, the orbital violence we've been struggling against with the might of our engines and the cunning of our equations will settle upon a natural null. A spot where two lumps of rock, in their constant strain, give way and like a fatigued muscle, and lay limp.

Up until this point we've been forced into the role of machine. Intelligent machine, to be sure, industrious and efficient. We have crisply executed our commands and the tin can around us has

buckled and boiled at our whim. It's a seductive feeling, but a lonely power it is. They don't talk about this part of being in space. I miss walking down a sidewalk in a city night and hearing the eruption of humanity all clustered around a bar. That profusion of communication, the comfort of one another even if we do not know each other. The sudden rise of wind giving voice to the trees and shrubs around me. I miss the mess of biology.

In space, or in this ship at any rate, the sidewalk ends before you even get a chance to start, and the only babble you catch is the arcane and beautiful prose of rocket science. They bark out their delta-v budgets and announce fuel mixtures. They speak of using the thrusters as "burns", and talk about them casually, but there is nothing casual about a burn. When your world is a fulcrum mounted upon a fury that rivals very angry volcano, the arrival of a burn is like the ending of worlds. White columns of fire sketch a devastation across what you came to acknowledge as horizon, until that horizon is skewed and tipped end over end. The pilots, and their planet-bound teams in communication with them, are a supernatural pantheon, capable of moving planets from one side of the universe to another with buttons, wires and the predictability of mathematics.

I, Nicola, push my fingers against the cold glass of our periphery and watch the beacon that we have chased, the moon, slip beyond the confines of this rectangle. The ship is flipping, they tell me, like a whale. It will point its tail toward Luna and leave my beautiful window sprayed with millions of stars a million light years thence. What consolation are these shards beneath my fingers? What reprieve can they offer me, where once the pocked and ancient face of our ancient goddess gave me strength?

They say that nature and science battle with one another for supremacy. I disagree with that. Science is the distillation of nature in its purest form. It is reality made legible by the minds that have evolved to fathom it. Out here, on the edge of that division, I float as a misplaced mote, pressed firm between what is and what should be. My hand, resting against the wall of this machine, forms a perfect symbol. Were I to stand outside of myself and gaze upon this display, I would but weep. Here we are, the messy and filthy products of soil and cell division, pushing the edge of our domain into the realm of purest physics. Beyond my fingertips it is black and white, behind them it is brown and orange and red.

I do not know much of the science involved in this declaration of war against the dark silence of space, but I do know that we are arriving, and that what we set out to do here will mark a keystone as solid and impervious to time as Armstrong's leap, as bold as Galileo's refracted eye, as arrogant as Ramses' outstretched hand, and as defiant as the nameless human's slash of red paint across the cave wall demanding tens of thousands of years of future humans to look back upon their works and recognise, "I was here, this is what I saw, and this is what I did".

In some neglected corner of my perception, I hear the final preparations announced over Morris' vocal chords, those fixed speakers that mock my mood. Another casual burn to sear the universe, and then we shall rest. That is what they have told me, but I know better. It is a rare place in time when a human can look out from this frail bag of flesh of their body, and realise that their name will be as solemnly whispered as that of a Pharaoh's. That for generations every deed they commit will be taught to millions. That their actions will stretch as withered roots into the legends and myths of eternity. To know that an outstretched hand pressed against the glass of a window will be as a red slash on the wall of a cave. Studied and pondered, sometimes lost and forgotten, but never futile.

Thoughts like these can lead to vanity. But for myself, Nicola

Haven, the last child of an ended lineage that stretches back to the dawn of us all, I will suffer beneath that knowledge.

"Deploying debris net in 20 seconds," Rhodes announces over Orbital comms, "strap in and prepare for approach burn."

The debris net was only one component of a series of defensive measures that would be taken against the antagonistic clutter of rocks and other space debris currently occupying the spot where the Orbital craft intended to park. For the same reason that it made such a good parking spot in space—one of the only parking spots in a planetary orbit that happened to contain a moon-a halo of debris would have collected and settled over the millions of years that Moon and Earth have engaged one another in their spinning dance. The net, composed of a lattice of diamond reinforced wire, was at this moment a fist-sized heavy ball of intricate origami, pointed at the invisible spot in which Orbital was headed. When deployed, a small explosive charge would expand the net to a width of 100 metres, and small propulsion units mounted around the edge of it would propel it forward, or backward depending upon how you looked at it, with the hope of sweeping aside any larger chunks of rock from Orbital's path.

The trick was synchronising all of the rockets so that the net did not fold over on itself. Morris was to handle the problem, with Rhodes on backup in case the computer failed.

"Bridge to engineering, set alpha and beta nozzles to wide aperture and lock in focus program."

The second defence was the very power that would slow the Orbital to a stop. With the main drives opened wide, the maelstrom of plasma would shortly be bathing a cone of space 500 metres long behind the ship, disintegrating the tens of thousands of smaller chips of rock that would pass through the net.

Fortunately, neither the rocks nor the Orbital would be moving at a high speed of relative velocity. Unfortunately, space construction and launch limitations being what they are, many of the surfaces of the Orbital were as thin as gold leaf. The goal was to carve a vacuum in front of the ship, because anything other than a vacuum could mean multiple breaches to the hull.

"Gordon, verify approach vector on leg H3. Ten seconds to debris net. Crew check."

As the crew announced that they were strapped into their beds or chairs in preparation for the last manoeuvre of the approach mission, Nicola's head turned as a dark pop vibrated through the

hull and watched through the window as a one visible span of tiny bright lights sped off into the clutter field.

"Page to bridge, alpha and beta in final burn configuration with program focus locked in. Preliminary radar returns clean."

A small cheer escaped the tension of the moment. A clean sweep meant that the net had done what it was designed to do. Now there was the small problem of roughly 125,000 catalogued bits of debris ranging in size from peas to grains of sand.

"Bridge to all stations, prepare for primary burn in thirty seconds. Thirty seconds to primary burn."

The idea was to open up the nozzles as wide as they would go. This would disintegrate most of the debris in a rough cylinder about twice the width of the approaching space station. Then halfway through the burn the nozzles would be focussed into a tighter beam, increasing the rate at which they could burn off rocks directly behind the vessel.

Fuel surged through valves and ravelled itself into an angry complex knot of nemesis gasses. This plasma rose, what we might crudely call an explosion, was forced through the back of the ship, and for three minutes the full audacity of an orbital insertion was rendered as a roar of contained explosion and the red crush against

straps and buckles.

Somewhere beneath all of this commotion, Morris was soothingly discussing something inaudible, but as time went by, Morris became more angry and insistent. Her purring became his growling. Nicola glanced up at the perpetual smile that had been painted onto the speaker and frowned.

She awoke to the sound of Rhodes sauntering around. How he managed to saunter in zero gravity made the rest feel alternatively bemused and envious. Page already sported a number of small bruises that attested to the durability of the engineering equipment around him, and Gordon could scarcely turn his head without groping for the politely coined "aspiration containment system". One did not get used to the sensation of their internal organs floating freely.

It was in one of those moments, concentrating futilely on everything but bile, face twisted into that perpetual grimace grin that everyone wore, that Morris decided to go all out Eastwood on the loudspeakers. That was when Nicola remembered the moments before she blacked out, Morris had been trying to say something, and thoughts had drifted to the vibrating diaphragm of

the speaker and how inadequate it was against the background noise of two giant explosions a mere twenty feet away.

"I'm very sorry to have to say this, but I am detecting a major malfunction in..."

Page glanced at the silent speaker for a moment before sauntering off to the mainframe to mutter at panels and flip switches for a while. "Well, that's odd, the linguistic system crashed but Morris is still online and functional."

Rhodes started issuing orders, "All right, Page you take care of the software. Nicola, I need you prepping the short-range probes so we can get some imaging out here. Gordon, once we have eyes, get the station positioned as best you can, and help Page if he needs anything."

Rhodes turned back to the comm station to update CAPCOM on the situation. That is when something very big and loud smashed into something most certainly very important. Page pushed a sequence of buttons and Morris decided to return to the party, helpfully announcing that yes, bad things were happening.

"I'm losing the main power grid," Morris declared and then fell silent again. This time the silence included all of the little reassuring ambient noises that astronauts like to hear. Sounds like

circulation systems and communications blips. Low green light flooded the cabin as the emergency chemical lights were engaged, and in a moment that would otherwise have been majestic, the edge of the moon broke into view through the observation windows.

CHAPTER SIX by Victoria Griesdoorn

The sizzle of a current across exposed wires. A swearing Engineer.

"Goddamn electrics!"

Henry Page stuck the tips of his fingers in his mouth, wiped them on his overall and examined them. No electrical burns. He reached over into his tool kit for a screwdriver. Not one with a plastic handle. Need a rubber-handled one.

With the screwdriver in his left hand he pushed the exposed cable to the side and peered further into the open panel. No other blackened parts, no sign of a fire.

"What you got there, Chief?" The voice came from the direction of the Commander.

Page looked up. From the bridge console, the Commander and Pilot were blinking at him. Nicola Haven, the Scientific Officer, opened the bulkhead side cabinet beside her.

"Nothing, sir. Just some exposed wiring. I'll replace it now."

"Then why the question mark on your face, man?"

Page released the electrics and threw the screwdriver toward the other tools. It gleamed in the overhead emergency lighting. He reached for his work gloves.

"Because... I can't find the source of the burn."

Haven approached Page, the ship's manual extended towards him. "Here. This'll give you an overview of the system."

Page scoffed. "No, thanks." He pulled his gloves on and stretched theatrically into the snug pockets, like a piano player warming up his finger muscles before a recital. Page stuck his head back into in the opened bulkhead. "I know this lady up and down, back to front without that manual." His voice echoed from inside.

Haven rolled her eyes and retracted her hand holding the manual. "This can go in the waste disposal then," she said under her breath, turning back to the console. The Pilot grinned.

Page extricated his head from the cavity, the burnt culprit with it. The exposed metal of the wire reflected in the shiny bulkhead.

The Commander and Haven pushed off the console for a closer

look. The latter not bothering with the manual this time. Page ran his finger along the extracted lead. He indicated a longitudinal break in the insulation. The tear showed black and cracked. "Definitely a burn mark."

Haven raised an eyebrow. "So what burned it?"

"No idea."

The Commander skirted them and looked inside the cavity. He checked the relays and print circuits, the rest of the wiring and the immediate area. "There's nothing here. No other marks at all."

A lopsided grimace from Page. "Exactly." The Engineer travelled to the spare parts' compartment.

The Pilot reported from the console; "all systems in that area now reporting nominal." He swivelled his seat to face the group. "Seems like it was just that wire that malfunctioned the lot."

Haven's other eyebrow joined the first. "So how does a single lead cause and catch fire without damaging anything else around it?"

Page returned with a replacement cable. "Got me there, doctor."

Haven opened her mouth to insist, when Morris came on the comms system. "Doctor Haven, proceed to the galley area. Doctor

Taylor requires your immediate assistance."

Haven delayed her question and mumbled; "be right back," before opening the lock door.

"Sounds serious," the Commander said, getting up from his console perch and following her out.

They traversed the rec room and headed over to Taylor, who was outside the galley lock, guiding a pair of shorts past his right leg. The movement looked careful, exaggerated. When he pulled them on, Haven saw a deep gash across his thigh, bleeding.

The gaping wound was at least two centimetres deep, the muscle exposed. Blood dripped away from Taylor's leg.

The Commander blinked. "Nice work, lad." He turned slightly green around the nose.

"You can handle this, Haven?" Without waiting for an answer the Commander turned and retreated.

Haven smiled. "Sure."

She looked Taylor's wound up and down. "What happened?"

"It's fine. Coincidence. I was heating up some food but the stupid meal tray cover split and I couldn't get it off properly." He indicated the med kit on the rec room's bulkhead. Pointed at it. "Get that for me?" Haven detached it, while Taylor progressed to the table.

"I attempted to puncture the tray cover with my pocket knife right when the lights failed. In my surprise I missed the container and aimed at my thigh instead." He grimaced. So did Haven.

"Hand me the anaesthetic."

Haven gloved him and herself up, and took the ready-needle out of its packaging. She took the cap off and handed it to Taylor. Then a gauze with disinfectant. She cleaned the skin around the wound. The doctor injected the numbing agent into the area around the gash. Haven saw the colourless liquid bubble up from the infused tissue into the wound cavity and mix with his blood.

"Can you keep the edges together while I suture?"

"Right."

Haven took the suturing needle and thread from the med kit and handed it over. She pushed the injury rims tight with her thumbs and forefingers, while Taylor tested his skin with the needle point. No facial reaction.

"Anaesthetic works."

Taylor sutured while Haven inspected the blood trail to the galley. It wasn't a straight path anymore.

There was a zing in the chamber and the overhead lights blinked

into existence. The ship's comms blipped once and Morris came on the ship's speakers. "Electrical system 47 restored. All lights operational. All systems nominal."

"Just in time!" The doctor threw aside his needle and Haven let go of his leg. Taylor cleaned the area again. He reached for the med kit's gauze and bandaging.

Haven watched his deft hands. "How often does the compress need changing? Can you do it yourself?"

Taylor waved her away, dismissively. "In a few days. Everything's disinfected and the knife was clean. It won't be a problem." He smiled reassuringly.

Haven returned one. "We wouldn't want to lose our physician in a rouge knifing."

"You're right. We are our own worst enemies here," Taylor agreed, mockingly. He peered in the med kit again, "Any painkillers left in there?"

Haven scowled. "Ah. No. That would be my fault. I'll replace them with stores in a minute." She pushed off towards command. "I'll get you some from the bridge for now."

"Thanks."

Through the bridge lock, Haven turned to Page, who was

clearing away his tool box. "Everything alright with the power?"

Page ran a hand through his hair. "Yeah, just that fried cable. Replaced it now. The power and circuits are back up. Morris declared all systems nominal. So no problem here."

"Doc's had a little incident with his pocket knife," Haven replied to the question mark on Page's face. "He's sutured up and fine. Just need to get him some painkillers for when the anaesthetic wears off. He says he'll be fine."

CHAPTER SEVEN by Keith Blount

"In space, no one can hear you scream at the interior decor." "Please maintain the arch in your lower back."

"Just a hanging lamp and a few pictures. How hard would it be to frame some pressed flowers? Good for morale, too,"—and here he let out a long and sibilant breath before resuming—"And a healthy spirit makes for a healthy mind and body."

Nicola had to interject at this. "Actually, a high-protein diet and an exercise regimen that strengthens the core muscles makes for a healthy body."

"But no, everything's so grey. They must have looked through the catalogues and decided gun metal and sickly white were in this season."

Nicola looked up from the animated line graphs traversing her tablet to consider Michael, who was floating before her with a purple Swiss ball clamped between his legs, and using his great slab'o'meat arms to pull up and then let himself down from the cylinders of the resistance device. He was wearing lycra cycling shorts and a low-cut vest two sizes too small for him. A sweat stain blotted out the NASA logo across his nipple.

"You are so Catholic and so repressed," she sighed, returning her gaze to her tablet.

He frowned. "I don't know what you mean."

"I know you don't. Now keep your thighs clenched around the ball and remember to breathe out on the way up."

The exercises she was devising for the crew here were nothing like the ones she had been taught during her sports science degree: performing resistance training while floating in midair with a Swiss ball between your thighs was not the sort of thing you could do with pesky gravity dragging you down (and arguably was not the sort of thing you would want to do anyway). In another life, Nicola Haven would have been a brilliantly sadistic personal trainer; in this one, she was a brilliantly sadistic personal trainer with a research grant, an assortment of exercise equipment that looked like something from a steampunk-themed torture chamber, and a remit to devise ever-more inventive and cruel exercise routines in

the name of science. Her redeeming feature was her winning smile (it was toothy and dimply and she used it a lot; it was something they taught her to do at a course she had taken only last year). She was beginning to realise, however, that it was lost on Michael, who was still grunting away and sighing at the decor of the exercise area (which, being primarily Nicola's domain, mostly comprised motivational posters declaring emphatically that "You can do it!", or opining that without a modicum of pain, one would, in all likeliness, not gain).

Nicola was ostensibly checking the records on her tablet for Michael's next exercise (but in actuality dreaming of being the toast of the sports sciences world with the papers she would write at the end of her 520 days, of interviews in *Sports Science Illustrated*), when Rhodes passed by the door. He was gone before she turned fully, but she knew it was him - only Rhodes could float militarily, in a way that suggested marching as opposed to in a way that suggested you would just be happy not to bump your head on the door jamb or on the dartboard that somebody had inexplicably brought aboard. He was heading from the medical module, from where the groans of Taylor could still be heard, and towards the command module. "How's the doc?" Nicola called after him.

From the other side of the rec area, she heard him call back, "He'll live. With a limp, but he'll live. I'm going to call it in."

When you were 37,000 miles from Earth, you called everything in.

Rhodes hesitated before entering the command module - he gripped the edge of the door frame and remained there, horizontal, for a moment, taking deep breaths of recycled air. Before filing a report with Capcom, Rhodes wanted to collect himself. He prided himself on his calm and collected demeanour: as an adjective, "collected" was used about Rhodes by his colleagues and superiors only slightly less than it was used about stamps by philatelists. But his renowned collecting-yourself abilities were failing him. They were less than a quarter of the way through a mission where the only thing the crew should have to cope with was boredom, and one of his crew was seriously injured.

He closed his eyes, trying, unsuccessfully, to quell his anger at the thought that there could have been a power outage at all. There should be safety checks and safety checks for the safety checks, backup generators for the backup generators. Stars and

sparks illuminated the insides of his eyelids: phosphenes caused by the cosmic rays. You couldn't even close your eyes in peace.

"Is everything okay, Commander?"

It was Page. He was in the rec room, strapped into the nearest thing they had to an armchair, beneath Morris's smiley speaker face—the face that someone kept repainting every time Michael cleaned it off, to which Rhodes had good humour enough to turn a blind eye.

"I'm fine," growled Rhodes. "Just thinking is all."

Page shrugged and returned to the clunky blue laptop he was working on. It was wired into the wall behind him, below the collage of photographs of family and friends. The smiling faces of Andi and Peter stared down from one of them, and Rhodes suddenly regretted putting it up—he worried it would distract him and make him soft when he needed to be strong.

He mentally rehearsed what he had to tell Capcom, and hauled himself through the doorway into the command module. He could still hear Haven barking orders at Gordon and Taylor's occasional whimpers as he shifted position in his cot.

Seven minutes later, he was back at the door. "Page. I can't raise

Capcom. I've got nothing. Nothing at all on any channel. Not even static."

Taking a break from teasing apart the wires beneath the comms console in the command module with his long delicate fingers, Henry peered over at Rhodes. "You know they landed on the moon using a computer with just 74 kilobytes of memory?"

Rhodes frowned. Or, rather, the frown that perpetually situated itself on his brow deepened a little. "Your point?"

"I'm just envying the engineers that worked on that mission, that's all."

He had spent the last thirty minutes trying to raise Capcom, following the routines and procedures that he knew Rhodes had already tried. He had rebooted the comms software, run it in safe mode, checked the diagnostics and, finally—more than a little disturbed that the protocols for debugging the most cutting-edge technology gave this as the last resort—tried turning the entire comms computer off and back on again. His hope waned further each time he flipped the comms to open and had his hails met with nothing but the hum of the Orbital's engines.

Opening up the console and examining it was a last resort, but

finally he had had to unstrap his toolbox from the rec room, get under the console and start taking things apart.

Rhodes had spent the time performing the floaty equivalent of pacing up and down the tiny module. He had passed over Henry so many times that Henry was now intimately acquainted with every wrinkle in the leather of his shoes

Henry was a talented engineer - he had "had a knack", as his parents and teachers liked to say, with computers and mechanics ever since he could remember. But no single engineer could have the knowledge required to maintain an entire ship such as the Orbital. To a large degree, it was self-maintaining, Morris having thorough and complex maintenance routines, and Henry was trained in dealing with all of the common hardware failures. But for everything else, he either needed to spend hours poring over the ship's schematics, or receive guidance from Capcom. Communications was not his area of expertise; the irony was that he needed guidance from over the comms to fix the comms.

Throughout, a sinking feeling of despair had settled over him. Tonight was his turn on the two-way, and right now Emily would be on her way to Houston in her beat-up Mini for their electronic rendezvous. They were scheduled to have a whole hour - her

locked away in a room in Houston and he in the command console. If he didn't get the comms back up before then, it might be a whole other month before he could speak to her again.

Finally, he replaced the panels and emerged shaking his head. "I can't see anything wrong. I suppose it could be a communications black spot..."

"There shouldn't be any communications black spots. Not in our orbit."

"No, I know. But as far as I can see, there's nothing wrong with the main comms console. I thought the blackout might have fried a circuit, but everything's good. In fact, I tried a whole new mother board but nothing. The comms run through to the main board in the galley, which connects to the external transmitter, so the next step is to check the galley. If that's all good, then I guess I'll be going for a stroll outside."

Rhodes nodded in a way that seemed both to concur with this analysis and to give Henry the go-ahead. Rhodes had a whole stock of complex body language.

Nicola found herself at a loose end. Michael had been called to the command console. When His Master's Voice had piped

through the speakers —the use of which seemed somewhat unnecessary given that no one was ever more than a few metres from anyone else in this wretched tin can—Michael had jumped to attention and practically run from the room. Well, insofar as anyone can jump to attention in zero-G. (Nicola had recently found herself imagining Michael as a small, snowy-white, yapping lapdog. In a tartan doggy coat. She had no idea where the tartan doggy coat came from, but it seemed fitting and she liked to call the image to mind whenever Michael was being even more pompous than usual.)

With everyone apparently busy (or incapacitated), Nicola had no one on whom to test any of the new exercises she had devised. (She was especially keen to try one involving the Vibration Isolation System, a handstand, the treadmill and a bucket, but now it would have to wait.) So instead, she picked up her tablet and swiped the screen to bring up the crew's vitals—given their mission, the whole crew was permanently wired up. She immediately saw an opportunity for research. Part of her remit was to examine how the body coped with stress in zero gravity, and how those coping mechanisms deteriorated—or, preferably, how they could be maintained or improved—over prolonged periods of

time. Henry's graph was showing some intriguing spikes in his cortisol levels, so, in the name of science, she decided to go and bother him. The fact that he was the least insufferable of her fellow crew members was an added bonus.

It wasn't exactly hard to find someone on the Orbital. Henry was only several wall-pushes from the exercise area, his grey-overalled backside and legs sticking out of a panel in the wall just inside the galley. Beneath his dangling legs, presumably magnetised to the floor, sat a small, yellow, box with touch screen on the top. Three leads—one yellow, one blue, one purple—ran from the box to a small panel in the wall next to the larger panel in which Henry was working.

Nicola squeezed past him into the galley. "Should I ask what you are doing, or will the answer be that you are teching the tech-tech?"

"I am teching the heck out of the tech-tech," replied Henry.

"You are stressed."

"Perceptive as ever, my safe Haven. What gave it away? Was it your wonderful spying device or the constant stream of expletives that have been coming from my mouth for the past half hour?"

"It was my wonderful spying device," said Nicola, who wasn't big on banter.

"I thought you'd learned your lesson about not running after people as soon as you see a spike in their excitement levels. Poor old Taylor will never be able to look you in the face again."

"Oh God, please don't remind me. But he really shouldn't have been doing that in the communal washrooms."

Henry stepped back and let out a resigned sigh. Then he pulled himself down and started tapping at the screen on the small yellow box at his feet.

"So, what's up?"

"Comms are down. Wait, I'm not sure if I'm supposed to tell you that, or if it's one of Rhodes' beloved need-to-know-only things."

"All communications are down? You mean with Capcom?"

"Yep."

"Shit."

From the small speaker at the other end of the galley, Morris's male, authoritative voice rang out: "Nicola Haven, please deposit one dollar into the swear jar."

Nicola stared at the speaker in disbelief. "What the fuckbags?"

"Nicola Haven, please deposit two dollars into the swear jar."

"It's Michael. He's trying to civilise us. He thinks obscenities undermine order and discipline. I wouldn't worry about it. I think I've lost the whole of last month's salary in the course of trying to fix this thing."

"And can you fix it?"

"I don't know. I don't think it's broken."

"Is that what the yellow box is telling you? What is that thing anyway?"

Henry looked across at her from where he was hovering, and then down at the box. "This? It's a universal manual override. Morris handles pinging the Earth usually, but this hands over control to me. I plug it in, it downloads the relevant end-user software if necessary, and I can control the linked hardware. If they made them for people, this cruise would be a lot more fun." He glanced down at the screen one last time. "Crap."

"Henry Page, please deposit one dollar into the swear jar."

Rhodes was suddenly there at the door behind them. "From the rapidly depleting funds in here, I take it the news isn't good."

"Not for me," replied Henry, straightening up and stretching his back. "There's nothing wrong with the software or the internal

hardware so far as I can see. I'm gong to have to check the external transmitter." He looked out of the window, at the unblinking stars in the black void where no human belonged. All those years he had dedicated his life to becoming an astronaut, only to find, on his first space walk just over a month ago, that he hated being in space. The others lived for the moments they got to go outside, but not Henry Page; each time he left the airlock, Henry worried it would be his last, imagining that he could feel the cool maw of death clamping down on him.

This was not the sort of thing you shared with a crew of military-trained astronauts, however, so he did his best to smile a Yay-I-get-to-go-on-a-space-walk grin.

Rhodes did his nodding thing again. "Okay. Page, suit up for a bit of extra-vehicular activity. I'll keep get on the comms with you while Michael keeps trying to raise Houston." He looked at Nicola, evidently trying to think of something for her to do that might sound vaguely useful. "Haven, check on the doctor." And with his commands distributed, Rhodes floated back to the command console.

"Suit up?" mouthed Nicola.

Henry shrugged. He was thinking about Emily, how smooth

and pale the skin on her back was, and about her sitting in a small booth in Houston staring at a blank screen and worrying about what was happening to him.

Henry had been prepared for space to be big (really big). What he hadn't been prepared for was how *empty* it would be. It was truly desolate. As he paused outside the airlock, confronted with the moon ahead of him (more grey) and the scatter of stars all around, as he did every time he had to come out here, he thought of Buzz Aldrin's description of the moon: *magnificent desolation*. That was it. That was what it was exactly. Magnificent. Desolate.

He had told Peter the quote after that first, terrifying walk (he had been naive enough then to believe that the terror would diminish with each subsequent excursion). And the doctor, who had literary pretensions (everyone knew he intended to write a book about his experiences once he got back to Earth) and was not to be outdone, had, in return, quoted Chaucer to him:

His light ghost full blissfully went Up to the hollowness of the eighth sphere... And there he saw with a clear view The wandering stars, harkening harmony With sounds full of heavenly melody. And down from there he did very well see This little spot (pinprick) of earth that with the sea Embraced is, and fully did despise This wretched world, and held all vanity With respect to the perfect felicity That is heaven above... And himself he laughed at the woe.

And, even if it seemed that Peter had just thrown in this quote for no really good reason other than to show that he knew a bit of Chaucer, that was it exactly, too. If he looked in the other direction, he could see the Earth, bright blue with its pathetic and feeble whisker of a protective atmosphere nothing but a slight glow around the edges. That wasn't desolate; it was fragile and unutterably distant, like something from somebody else's dream, which was even worse. Looking at it from here, so far away, he felt as though he had already died, that nothing could possibly matter now, not from this perspective. And yes, it did make him want to laugh. Such feelings, however, were problematic when you had a job to do. It was too easy to get sucked into just staring into space—literally. Fortunately, when it came to unhelpful trains of thought, Henry was adept at switching tracks, and he braced himself for the task at hand. He checked the connecting hose on the Extravehicular Mobility Suit for the third time and carefully went through the tether protocol, ensuring all his tools were at hand and tied to him. Then he checked the connecting hose for a fourth time, and lurched forwards, past the "Go, Team!" graffiti that Nicola had somehow left on the side of the ship on her first walk.

The external transmitter, which looked something but not exactly like a satellite dish having a bit of a sit down atop a pyramid, was about twenty paces away. He had gone no more than five when he remembered to check his oxygen levels, mentally smacking his own forehead as he did so. *Stupid, stupid, stupid -* how had he forgotten to check them before going through the whole airlock procedure? And just his luck: there were only forty-five minutes left on the clock; the tanks hadn't been swapped since the last walk. He considered turning around and swapping the tanks before continuing, but that would mean clambering back in, depressurising, untethering himself and then going through the whole routine again. And it was that moment of leaving the airlock that most terrified him, that jump into nothingness, all the time staring at the connecting hose and believing that it would snap.

"Page, how are you doing?" Rhodes' voice.

"Fine. I just realised don't have much oxygen, but I'm going to check out the transmitter anyway. If it's going to be a big job, I'll have to swap tanks to do it, that's all."

One slow and gentle lurch at a time, Henry picked his way to the transmitter.

After another awkward pause in the conversation, and for only the third time, Nicola asked the doctor how his leg was.

"It's still a bloody mess."

A crackle followed by a tinny voice from the speaker above his cot: "Peter Taylor, please deposit one dollar in the swear jar."

"That was a gory adjective, not an obscenity!" He sighed and ran his fingers through his thinning, sandy quiff, pulling it taut across the desolate island of shiny pate. "Look, I don't mean to be rude, but since I'm trying to take it easy on the painkillers and am—and I really don't want to understate this—in excruciating

agony, I have to ask: are you here because you genuinely care, or because you want to observe how my body reacts to a serious injury in zero-gravty?"

Nicola shrugged and brushed a strand of her own hair back behind her ear—perhaps subconsciously taunting him with her own thick mane. "A bit of both, to be honest. That, and Commander Jacob Sir sent me."

The doctor nodded and looked at the read-out on the computer hooked into the supports on his leg. He winced.

"Doctor heal thyself, eh?"

"Something like that."

"Oh! I brought you a book," said Nicola. She raised the tattered paperback she had been holding down in her lap. She'd plucked it from the measly collection in the rec room—the books were there less to be read than to make the place look like a living area; there was, after all, a supply of electronic readers with whole libraries stored in them.

The doctor squinted and read the title on the cover. "Snows of Kilimanjaro and Other Stories. Ha bloody ha,"—they waited for Morris to demand recompense—"Very funny."

Nicola smiled mischievously, pretending that whatever joke he

thought she had made was intentional.

For a moment, they both stared out of the window, through which they could see Henry standing atop the grey pyramid and peering into the transmitter dish. He stood back and shook it, which nearly made Nicola laugh, it looked so comical.

"Well, anyway, I'm glad you are more like yourself again," she said, returning her attention to the doctor.

"Oh, your bedside manner has cheered me up no end."

Nicola, who was even less skilled with irony than she was with banter, smiled. "It's probably the course I did last year: Empathising With The Subjects of Your Research."

Peter shook his head. "No doubt. Did you learn much?"

"Mainly to smile more."

From the speaker above the bed, Morris announced, "The outer airlock door is now open."

"And to ask people questions about themselves," added Nicola. "Do you have any hobbies?"

"Er, not really."

"Something to help you pass the time as you..." She struggled for the word. "Coalesce?"

"While I'm convalescing, I shall be composing the first chapters of

the book I'm going to write about our little expedition."

There was another lull in the conversation, during which Nicola tried to work out how Peter would turn his leg injury into a feat of heroism in his forthcoming literary epic.

"I run marathons," said Nicola, at last.

"Fascinating, but why are you telling me this?"

"Oh, sorry. I thought we were sharing information about ourselves. Hobbies. I thought it was my turn."

"The outer airlock door is now closed."

"Did you miss any of your course on empathy?" asked Peter.

"I did, actually. I got sick from what I think was a bad zucchini and missed a day. Why do you ask?"

"No reason." He picked imaginary fluff from his blanket, shaking his head again.

"The outer airlock door is now open."

"A perky, athletic girl with a sports science degree who likes running marathons," summarised Peter. "You are what E.M. Forster would have called a flat character."

"There's no need to be rude."

"The outer airlock door is now closed."

"I mean," continued Nicola. "I work out a lot. I wear sports

bras." But she wasn't really paying attention to what she was saying. She was looking behind her, back into the rec room. She could see Michael and Rhodes coming out of the command console with serious looks on their faces, but then, they always had serious looks on their faces, so that didn't tell her much.

"What on earth are you talking about?"

"The outer airlock door is now open."

Nicola stood—or, rather, drifted—up. "What's going on?"

She left the good doctor alone with his puzzled frown and pulled herself out into the rec area.

Henry was stuck in the airlock. As Nicola joined them, Michael and Rhodes were peering through the thick glass of the doors at him, trying to determine a course of action. Meanwhile the outer doors were opening and closing, opening and closing, repeatedly revealing and concealing the bright stars beyond. Morris's chirpy speakers announced each open and close motion with the pointless pride of one of those airlines that play a jingle every time it manages to land a plane on time. But at no point did the outer doors *stay* closed, and at no point did the inner airlock doors open to allow Henry back onto the ship. Henry was probably starting to have some idea of what it would be like to be a fish in a tank right about now.

"Henry is stuck in the airlock," explained Michael, nodding as though he had carefully evaluated the situation, taken in all of the salient facts, distilled them down to their essentials, and conveyed them in a manner that would now open up opportunities for affirmative action. Or it might have just been that he was stating the bloody obvious.

"This whole place is on the fritz," said Nicola.

Henry looked as though he was starting to panic. Through the glass of the door and the glass of his helmet, they saw his lips move, and his voice emanated from the smiley-faced speaker in the wall behind them: "I only have two minutes of oxygen left. Two minutes. Open the bloody doors!"

Michael at least had the decency to look sheepish as Morris demanded its dollar.

Nicola looked from Rhodes to Michael, but it was clear that neither of them knew what to do. She looked at Henry and mouthed, "What do we do?"

From the speaker behind them, Henrys' voice came through as little more than a spit and crackle: "Come on! All you need to do is

fetch the—"

Which is when the speakers decided to join the rest of the ship's systems by also going on the fritz.

Nicola could see Henry gesticulating, and felt a wave of panic washing over her. Back in the exercise area, the graphs on her tablet were no doubt zipping across the screen in wildly vertiginous peaks and troughs. Henry was starting to panic, and if he started to hyperventilate, he'd have even less than two minutes left.

Even cool, collected Rhodes was not looking quite so cool and collected as usual—he was, in fact repeatedly slamming his fist into the control panel next to the door. If he'd had a gun, no doubt he would have tried shooting it.

And that's when she saw it: Rhodes' banging had knocked loose the panel's protective plate, revealing three, circular ports. One yellow, one blue, one purple.

Thirty seconds later, she was back from the galley with the small yellow box in her hands and fumbling the leads into the ports. Henry was now starting to gasp for air.

As soon as the third lead clicked into place, the outer airlock doors stayed shut.

On the small screen atop the box, a green progress bar appeared, along with the message, "Airlock doors manual override software downloading. Please wait..."

She jiggled from foot to foot, cursing whichever sadist had invented the progress bar, muttering under her breath, urging it along.

Finally, two large buttons appeared on screen: "Open outer airlock doors" and "Open inner airlock doors". It was the sort of interface she would have laughed at as implausibly convenient in a Hollywood movie, but for which she thanked the God she wasn't sure existed but who provided so many convenient stock phrases nonetheless.

She hit the bottom button and a hissing sound filled the airlock chamber in front of them as depressurisation commenced. Rhodes sighed his relief and stood at the centre of the doors, eager to get to Henry.

When the doors finally opened, Henry was just floating there, and no one was sure if he still conscious or not. Rhodes was the first to get to him, unzipping and pulling off his helmet as fast as he could. They were all painfully aware that their only doctor wasn't in any condition to treat Henry if he had been seriously

hurt.

Henry was breathing—or rasping—at least. A great deal of time seemed to pass as they waited, breathless themselves now, for Henry to say something. At last, he took a deep breath, and with his eyes still closed, said: "I have a confession to make. I hate space."

Nobody laughed.

Henry opened his eyes and looked at Rhodes. He took another deep breath. "There's nothing wrong with the transmitter," he said, weakly. "Nothing. Everything's working fine, inside and outside. I don't think the problem is with us. The problem has got to be on their end."

The memory of an old *Twilight Zone* episode flitted through Nicola's mind. In it, an astronaut on a mission to Mars lost all communication with the Earth. So he set off home. When he got there, he found that everyone was dead. The Earth had been ravished by nuclear war and he was the only human being left alive in the cosmos.

Thanks to the course she had taken on empathy, Nicola decided that this wasn't a good moment to share.

CHAPTER EIGHT by Jake Kerr

The light level raised as the huge surround-monitors went dark and elevated into their ceiling docking slots.

Tom Carr noticed the woman behind him via her reflection in the window across from his place at the huge conference table, and turned to face her. She silently handed him a folded note and departed.

At uncomfortably distant spots around the table, Jim Bauer and Lance Simon glanced quizzically at him. Lance quickly returned attention to his fellow Mission Operative Directorate executive board members, all six of whom were gathering papers, saying goodbyes, and departing back to their heavy schedules.

Lance acknowledged the departing woman, Lilith, with a smiling upward head motion, waved without looking to the rest of the room, and gave full attention to Tom. "Anything?" he said. Tom simulated a chuckle. "Bit of melodrama in the ranks, I'm afraid." He turned to look at Jim. "Ryan's got too much time on his hands."

"Mr. Simon..." Tom started.

"We agreed, have we not, Tom, that I'm Lance?"

"Sorry."

Tom shifted in his seat, crumpled the note in his hand and stuffed it into the oversized, old fashioned brown leather briefcase sitting upright on the floor beside him. "Lance, CAPCOM is too stressed to do his duties, which, unfortunately, are non-existent right now, given our situation."

Jim spoke up, a team-player all the way, even though it undercut his argument. "Lance, our CAPCOM, Ryan, seems to be, and to have been, infatuated with astronaut Allison Faraday. He's convinced that, being the only woman on the team, and believing herself isolated in space she's having a nervous breakdown." He shrugged and raised his upturned hands. "This is not the case. CAPCOM is projecting wildly, he's behaving like a turbine without a governor."

Tom said, "He's overreacting, yes, but there are too many signs of crumbling capability amongst all the crew. Oddly, Doctor

Taylor seems the most calm, but that's likely attributable to the morphine."

Lance's body language hinted that he wanted to end this, to leave. "My colleagues feel, as I do, that these misadventures, though alarming in their number and their severity — especially so early on — are within the normal parameters of an exploratory mission."

"On the face of it, I don't disagree," said Tom, "but my gut tells me that this Orbital mission is, to use a sub-orbital phrase, cursed." He shook his head slowly then raised a hand to forestall Jim. "The Lagrangian Point is, of course, a theoretical balance point, just as are 'normal parameters.""

Jim's voice vibrated with tension, his smile was frozen. "These outstanding astronauts are the dictionary definition of 'grace under fire.' These setbacks are the challenges that these heroes — and heroine — live for." He nervously pawed through the folders and papers in front of him, as he fumbled at his breast pocket for his reading glasses. "I need to read you a few of the Statement of Intents our crew wrote before they were chosen to the astronaut program."

Lance murmured, "Not necessary, old man. Not at all needed."

"Jim," Tom said, "By the book and by the numbers and by NASA protocol, all is well enough." Tom looked at Jim for several beats, his not-quite-pointed index finger hovering above the shining oak table top, then shifted his gaze to Lance. "But we, each of us, know that every mission we've done, even those that went off without a hitch, were dancing with Murphy's Law." Tom's finger now pointed slowly, first to Jim, then to Lance. "There's a rogue Irishman in the house. I can feel it.

Lance's office reminded Jim of his own, in the bad old days of fame, fortune, and infamy on Fleet Street. When he ran the table on cutting-edge psychiatric innovations, and high-profile success stories. The tabloids had loved him. Until they didn't.

Tom touched a finger to his collarbone area. "I've got Fido on the line. He's got it locked down. Next window is in forty-two minutes." He looked at Lance. "I need to give him a Go, now."

Jim started sputtering, but an almost invisible look from Lance silenced him. His vibrating left foot, unheard through the NASA seal design carpet, nonetheless charged the air.

The woman, Lilith, entered this gentlemen's club space, inscrutable and silent and of an extraordinary Nigerian

blue-blackness. She placed a globe on Lance's desk, and set a metal wafer that shone in anodized moire patterns that shifted continually in response to the slightest noise. Even Lilith's ghostly departure caused it to shimmer.

"Current cost analysis on Orbital," said Lance.

A holograph thirty inches high manifested.

"De-triangulate and target," said Lance, and the holograph replicated itself into three images, each directly facing the three men in the room.

"Sir, this is not needed," said Tom. I know what's at stake."

"No sir, you don't," said Lance. "You haven't..."

Jim shouted, "This is short-sighted cowardice. The results of this mission will..."

A sharp thump.

Lance standing and, again, smacking his hand on his desktop: two, three, four times.

The holograph whirled, disappeared, reappeared, reconfigured.

Jim yelled, "Ryan has terrified you! You're running scared!"

The holograph expanded so much that all three men were within it.

A piercing but soft contralto voice said, "End graph." Lilith

said, "Sir, the club has had to make your reservation earlier than planned."

"Thank you Lilith. We're almost done here." Lance turned to Jim. "Mr. Bauer, I'm glad we both recognize the imperative value of this mission." He looked long at Tom and said, "I'm saddened to see the priority your gut has in this temple of man's highest and noblest accomplishments."

"Sir," Tom said — "Mr. Simmons — it's like we're General Custer and his troops on a hilltop, and the valley ahead of us is quiet. Too quiet."

"Last chance, Mr. Flight Director, to continue as flight director or anything else in our field." Fory-year-old Lance looked sorrowfully, looked paternally, at the much older man and shook his head. "This is not a threat, it's an observation."

Jim was twisting on a hot bed of nails. "Tommy, think of your wife. And the kids!"

"It's just too quiet." Tom walked towards Lilith, and then the silent black monolith led him from the room.

CHAPTER NINE by Claire Woodier

The Operations Manual was smug:

"Once locked in, there is no possibility that the patient can be affected by the variables associated with zero gravity, allowing the medical operative full autonomy over any surgical situation."

Pete closed his eyes and let out a long frustrated breath, blowing his cheeks out.

"Yeah, yea." he scowled.

Each member of the crew had a personalized treatment table cast and moulded in plastic to exactly fit the contours of their bodies. He was sat up, legs manoeuvered and locked into position. In Mission Prep they had extensively researched the challenges a doctor might face when trying to treat patients in zero gravity, which was fine, unless of course you're trying to treat yourself. His legs weren't moving, but he couldn't reach his surgical instruments. The Manual continued:

"We at NASA are extremely proud of our technological devel.."

"Shut that bloody thing off Morris!" Pete barked, wondering why the hell NASA's Operational Manual had Britney Spears' Toxic playing in the background.

"Sorry Peter," the female Morris replied, in her smooth honey-apologetic tone. "I just love that song is all. It makes me feel... sassy."

Pete was looking at the Instrument Suite; beautifully arranged surgical implements gleaming behind glass like diamonds in a jewellers. They were on the opposite wall and out of his reach. He tilted his head to one side and with one hand massaged the tightness in his neck. He had to think. Morris went on:

"I know how you hate listening to "that self-righteous bastard" so I thought I would add some uplifting music to the mix."

The Doctor's face buckled with pain as he gently pressed around the wound on his right leg.

"That's great Morris. Tell Haven to get in here will you."

The nerves crackled in his jaw as he leaned forward to peel back the cotton gauze from the sticky open wound. It wasn't healing. The bleeding had stopped but his shin looked like a slab of meat

that had been hung too long. The flesh was dark: burgundy-black with teal tinged shards of skin that were rolling and drying like apple skin as they died. He thanked Jesus that at least the wound was on the front of his leg so he could at least see what was going on, but he was going to need help. The flesh was becoming infected, and quickly. He hadn't anticipated such an accelerated deterioration, and smiled sardonically at what an interesting case he was becoming. He reckoned Haven would be thrilled to finally find something gripping to write in her report. Morris's voice boomed out in his male authoritative tone:

"Dr Haven to the medical room. Dr Nicola Haven to the medical room. NOW please Dr Haven. Doc-"

"Give it a rest Morris!" Nicola blasted as she pulled herself into the room. She instantly checked her volume however when she caught sight of the doctor. He was grey and slow with pain, and suddenly smaller with vulnerability. She felt their relationship shift in that moment.

"Doctor Taylor," she whispered. "what can I do?"

She had always felt he was trying to make her apologetic for her title of Doctor. He made it quite clear that he was derisive of her appointment as Science Officer. She may specialise in 'Sports

Science', (he would spit the words out) but he was the REAL medical professional on the ship. It had been exhausting. She regarded him; the defiance had left him now. She was looking at a different man.

"I need to do something with this leg Haven."

He tried to straighten, but his back was becoming stiff from keeping upright. The treatment tables were designed to be comfortable when fully laid down in your personal indentation. It turns out, sitting up at a right angle to your strapped down legs is not a position one can keep up for too long. His backside was becoming numb. He wanted to get out of the restraints and move around in the air for a bit to stretch out, but he was afraid he would look frivolous. Instead he continued:

"It's beginning to rot, incredibly quickly, despite the correct cleansing and dressing. I think I'm going to need to take the rancid area off to start the healing process again."

"Like removing a cancer?" Nicola ventured.

"Yep. I figure if we treat it like that, I might have a chance of saving the leg." He took a quick breath in and out. "I need you to help me though."

Nicola Haven knew those words were like sand in his mouth.

He had averted his eyes away, hoping she wouldn't have noticed. He moved his attention to the Instrument Suite.

"I can't reach the instruments from the treatment table, so I'm going to need you to pass me what I ask for. I don't trust the local anesthetic I used last time, it may have been the reason for the accelerated decomposure. I'm going to freeze the area instead."

"ATTENTION ATTENTION!" the male Morris announced sternly. "Doctor Taylor is going to freeze his rancid leg. I repeat: Freeze his RANCID leg. THAT IS ALL."

"MUST you update EVERY bastard status Morris?" Pete bellowed.

"Its how I'm programmed Peter." Morris replied, female and sexy again.

Nicola pondered the implications of Morris's programming. NASA's stance must be that all apologies are female. Could a woman ever hold a position of authority in that environment? Were the changes in Morris's gender designed to generate a prescribed behavioural reaction by the crew? She had wondered just how far their experiment would go. She made a mental note to examine the gender heirarchy shifts within the group as she began to scrub her hands down with the antibacterial wipe-cloths.

Chicago's "If You Leave Me Now" began playing at volume. Both Doctors stopped what they were doing and looked up at the Morris's black speaker.

"Christ Morris, get current will you?" Nicola remarked. She looked at Pete. "You'd think NASA would programme her with up to date music." she smiled.

"I have a penchant for Pure Soft Rock Dr Haven." Female Morris said. "What can I say?"

Peter Taylor was no longer listening. This wound would need to be cauterised after the infected layer of flesh had been removed. He would be lucky if he didn't pass out from the initial freezing, let alone the procedure itself. The pain was dominating him now, clouding his concentration. He would need to focus if he was to stay conscious throughout. Nicola was way ahead of him. She had been to medical school, but she was absolutely not a practiced surgeon, she was out of her depth. She would need smelling salts. Peter Cetera's voice was still oozing out of the speakers:

"If you leave me now, you'll take away the greatest part of me.

Woo-oo-Oh baby please don't go."

"TURN that shit OFF!" Pete exploded. The room fell silent. Silently.

"Right Haven, I'm going to have to do the intricate incisions because I'm the only one stationary enough. I'm worried about losing consciousness however, so will you be able to perform the cauterising process on your own? It's a matter of lowering the hot-plate onto the wound, like an old-fashioned flat iron. If you are confident it means I can pass out sooner rather than later, until then use the smelling salts to keep me awake."

He was business-like again, in charge, despite what must have been excruciating pain. Nicola couldn't help but admire him then. Keeping composure through this took incredible character. Without thinking she wiped the sweat away from his forehead, gently; with kindness. It stopped him. For a split second they were on pause, eyes locked.

"Yes Doctor, I'll do my best."

Lesley's face flashed into Pete's mind; his wife, at home. Whenever he thought of her she was smiling at him over her shoulder from her desk. Always working. They both were always working. He hadn't conceived he would miss her. His work was always too important. He missed her now. He wished Nicola were Lesley, and he could enjoy the feeling of being cared for in that moment.

"Right, well, let's get it over with then." he said, softer now.

Dr Nicola Haven watched as Doctor Peter Taylor sprayed liquid nitrogen on his pungent wound, clenching and swearing with the pain. She had continued to wipe the sweat from his brow, but he had barked at her not to - she would have to keep re-cleansing her hands. She fetched each scalpel dutifully, swabbed when asked and wafted the salts under his nose if he began to drift. She had been terrified at the thought of sealing the wound for him, she had never done such a procedure. He had stayed awake however, and with a purple silent scream he performed the task she could not do. She felt saved she was so relieved.

"Thank you Doctor." she said absent-mindedly.

"What?" Peter asked, tearful through his ordeal, vascular and sweating with tension.

"What?" She repeated, embarrassed. "Erm, I'll get you your medication for the pain." She reclined him slowly back so he could relax on his treatment table and strapped him in. He closed his eyes. Nicola went to wipe his pained brow again, but stopped herself. "I'll be back in a minute." she said.

As she left the medical room, Doctor Taylor opened his eyes again and pressed the release switch for his upper body restraints.

He reached his hand into his left pocket and pulled out the bottle of painkillers. He picked out two pink pills and swallowed them dryly. Combined with the drugs Haven would bring him, he may be able to wake up without pain. He pressed the button by his fingers again, and the restraints secured him in his treatment cocoon. With this he closed his eyes and allowed himself to pass out.

CHAPTER TEN by Tim Rogers

The exercise module on the ship was quite unlike any gym on Earth. Exercise, whether it's running along riverbanks during a lunch hour, or pounding rep after rep of bicep curls with a set of dumbbells, requires one thing to work: resistance. In a zero gravity environment, weights have no weight and you'd just float off the treadmill with your first few steps. The exercise module in the ship, therefore, had been designed to put the gravity back into the activity; the machines all looked like compact and plastic cardio machines with American Football pads crudely attached to them.

Nicola Haven was strapped firmly into one of the machines. Dressed in running shorts and a light top she was pounding out some miles on the treadmill while rubber cords attached to a brace around her shoulders pulled her solidly towards the moving track. The music blaring through her headphones allowed her to block out the gentle but relentless whirring of the air circulation fans that kept them alive, and with her eyes closed she could almost be back running on the riverbanks.

Almost.

The sensation of sweating was strange. Instead of running down her neck and soaking into her shirt like it normally would, the droplets just stood where they emerged from the skin, which prickled and irritated her for the duration of the run. Yes, it was good to get the heart pumping, but Nicola couldn't exactly say that she was enjoying the exercise anymore.

The hatch to the module creaked and opened with a clunk. It was loud enough to make Nicola jump over the noise of her headphones and she almost got her feet tangled on the narrow treadmill as a result. She turned off the music as Taylor drifted in slowly through the open hatchway wearing the faded 'Jurassic Park' t-shirt he always wore in gym.

"Sorry. Meant to sneak in quietly, but..." Taylor steadied himself with one hand against the wall, "guess I missed."

Nicola just nodded and kept going. Looking at the clock she only had a few minutes of her scheduled exercise left, so she carried on until the clock showed time and switched off the

machine. "Hey," she said through deep gulps of air. "Are you scheduled next?"

"Supposed to be." He gave a clumsy nod towards his injured thigh. "Probably give the treadmill a miss though."

Nicola carefully unhooked the rubber cords from the brace on her shoulders and immediately felt the lightness return over her. "I just need to make a note of my exercise and then I'll help you get set up if you like. Need to get some exercise in you. We can switch out your program and put you on... can you pass me that towel?... put you on the hand bike for now."

Taylor handed over the towel from the shelf behind him and his gaze lingered a little too long as Nicola gently patted herself down.

"How's the leg holding up?" she asked.

"Huh?"

"The leg? Your leg?"

"Leg? Painful. Really fucking painful. Luckily I'm able to keep the weight off it." Taylor let himself drift upwards still in a sitting position "Wooooooooo."

Nicola laughed. "Are you on something?"

"Just wanted to thank you for yesterday. Your help with my leg, I mean." Taylor pushed himself off the ceiling gently glided back down. "Couldn't have done it without you."

Nicola ignored him and went back to the notes she was taking on everyone's exercise regimes whilst on board the ship. The readout from her heart rate monitor would do a lot of the work for her, but she still preferred to keep her own handwritten notes as well. Somehow it helped the patterns jump off the page better. She finished jotting down the times of her run and added a few comments. *No material change from early sessions in treadmill speed to maintain a target heart-rate.*

Taylor's hand on her shoulder brought her attention back to the room. "Sorry," he blurted as he used her shoulder to steady himself from the drift. His eyes were glassy and unfocused.

Nicola stared into his eyes with the concentration of an optician. "Seriously, are you on something?"

"Yeah," he smiled. "Painkillers. For the pain. Hurts like a... well, it hurts."

"I bet it does. Just try and save some pills for the rest of the journey will you? I might need some myself at some point." Nicola smiled as she gently pushed Taylor away from her. "Right let's get you strapped into the machine."

The hand bike was a chair bolted to floor with what looked like

bicycle pedals positioned about half a meter in front at chest height. It was an ugly, no frills piece of kit, with fully exposed gears and skeletal frame, which is exactly what it needed to be in that environment; as light as possible, and easy to fix. Still, it looked dull, and Nicola could see in Taylor's face he was thinking the same thing. "Do 30 minutes on this and then we'll change you up to something else."

A smile – or was it more of a leer – crossed Taylor's face and he turned away from the bike and back towards Nicola. He was far too close again and she could taste his breath on her face even through the dulling of her sense of smell since being on the flight.

"Can't we think of some other exercise to get our heart rates up?" he asked.

She pushed him gently back towards the bike. "I've already had my exercise for the day."

"You look great, you know."

"No Pete, I'm sweaty, scruffy and my face is all puffy. You're just high."

"Awh, come on. It'd be fun."

"Don't whine, Pete. It's not happening so get over it. And you've got a wife, you should be ashamed of yourself." Taylor pulled away dejected. "Yeah, I love Lesley. She's my life." For a moment genuine remorse washed over his face and Nicola felt a little sorry for the guy.

Suddenly his face brightened. "But it's just such a great opportunity. We're in space! No gravity! And the communications feed is down anyway." He pushed forward and pressed Nicola against the wall. One of the shelves slammed painfully into her back.

"Get the fuck away from me!" she shouted and, using the wall as leverage, lifted her left foot and planted it firmly onto Taylor's bandaged thigh.

She was surprised when he didn't scream. His face turned a fantastic mottled pattern of bright red blotches against a drained white background. He didn't buckle, but for a second started to collapse into a foetal position where he stood, before his brain overloaded on the pain messages and he vomited noisily into the air. The pieces floated softly around his head like the pain stars on a cartoon character.

"Get up you loser." Nicola hauled Taylor's still prone and softly moaning body over to the hand bike and slammed him into the seat.

"It might be an opportunity for you Taylor, but it's not for me." She pulled the straps round on the seat and fixed them into a 5 point harness to belt Taylor on to the machine. She tugged hard at the tightening loops and the small amount of discomfort seemed to snap Taylor back into the present somehow.

"Look at me, Taylor," said Nicola and she slapped him across the face. "And listen up. I know what the mission is on this ship. I know it's not just about the physical impact of space on the body but also about the impact of the isolation on our minds as well."

She grabbed both of Taylor's hands and forcibly placed them onto the handles.

"TURN."

Taylor started to slowly crank the handles. His muscles started to stiffen against the resistance as he picked up a bit of speed.

Nicola started the timer on the clock in front of the bike and turned on the heart rate monitor on the machine so that it would record his activity levels. "I know why they picked me for the mission. Put a woman up there in a tin can with four guys for a year and a half and see what happens. I'm *supposed* to be a temptation, right? Well get this. Nothing, and I mean *nothing* is going to happen. Be as tempted as you like, you sad little man, but you don't touch or I'm going to put you in the fucking airlock. Am I making myself clear?"

Taylor nodded a slow acknowledgment.

"Now keep your heart rate above 60% on this screen. I'll be back in two hours."

"Did I hear shouting?" asked Rhodes as Haven stormed into the Command Module and strapped herself into a chair.

"Arsehole," she muttered.

Rhodes exchanged a discrete smirk with Page, who was working his way through another of the routine checklists he had to go through on a given day.

"Which one? Gordon or Taylor?" asked Rhodes.

"Taylor."

"Hmmm, my money would have been on Gordon," said Page.

Rhodes shot him a quick stare and Page quietened down. Nicola was visibly fuming in her chair. She'd pulled on her blue coveralls with the NASA logo proudly embroidered on them, but still had the towel draped around her neck. The shower could wait.

Jacob Rhodes was a patient man when he wanted to be, and if at all possible when up in space, he wanted to be patient. He wasn't interested in hearing babbled stories told under times of high emotion if it was possible to wait for a calm and measured update. This was something he felt was fundamental when talking to his engineers, and absolutely essential when listening to aftermath of arguments. When Haven had sufficiently cooled in her seat, and her breathing was back to normal, he laced his fingers together and asked, "So?"

"That arsehole tried to feel me up."

"Again, my money would have been on Gordon," smiled Page.

"Not funny, Page"

"Sorry, Nicola."

"So if I go back there to the exercise console now, am I going to find Taylor stung up with rubber cord?"

"No. Although I should have done," said Nicola. She gave the quick version of what had happened. Page too confirmed he'd thought the Doctor was out of it earlier and possibly over prescribing on the self-medication.

Rhodes thought about it for a moment. He couldn't afford to have an unstable man on his ship, so something had to be done. He couldn't stop the man taking pain killers as he was probably in a whole lot of hurt, but he would need to make sure he got it under control.

"Perhaps it's the impact of being up here that's messing with dosage," said Rhodes.

"Maybe he's popping twice the RDA," added Page.

"I'll speak to him."

Nicola unclipped the belt on her chair and rose up to go take her shower. "Not just on the drugs. Speak to him about the friendly hands too."

"What if he can't cut back?" asked Page.

Rhodes rubbed his hand cross his chin. "Well, then we'll have no choice but to shut him in his bunk." He got up out of his chair and left Page to his checklist. "I suppose I best get it over with."

CHAPTER ELEVEN by Paul Shalley

The NASA representative pulled up outside an imposing Georgian mansion, in a government-issue black Ford Taurus. The wrought-iron gates topped with razor-sharp arrows forbidding him entry. The man halted on the footpath just outside the main gate. He looked at the mansion, wondering how someone on a NASA salary such as his could afford this. He was just guessing however, as Henry Page's salary was far above his own. The path beyond the main gate was lined with little round pink rose bushes. The mansion itself was painted white. After a few more moments, he crossed over to a recessed panel inlaid in a brick column. Pressing the button, he waited patiently. After about fifteen seconds, a small voice issued from the speaker. "Yes?" came the voice of 29 year old registered nurse Emily Page. "Ms. Page" said the NASA representative, "I have something to discuss with you. May I please

come in?" "One moment" said Emily.

It seemed barely five seconds later that the gates began to swing open noiselessly. The man walked through the widening maw of the gates, swallowed whole, soon to be consumed by the stately mansion, just as it had done to countless others. Two minutes later, the front door opened. Standing there, in the door frame was Emily Field, her blond hair tied back in a ponytail.

Emily was a nurse in the United States Public Health Service Commissioned Corps, holding the rank of NATO Code O-9. This corresponded to the rank of a United States Navy Vice Admiral. She was the Surgeon General, overseeing the USPHCC, and answering directly to the Assistant Secretary for Health. Upon her shoulders were two golden rank slides, at the top was inlaid in black was the insignia of the USPHCC: An anchor, caduceus pointing out to the left and right respectively, mounted behind a shield bearing colours of the Flag of the United States. Above all this sat a bald eagle, with its wings outstretched.

Below, three silver stars signifying the rank of Vice Admiral of the United States Public Health Comissioned Corps. Upon her left breast were four ribbons, arranged in order of seniority from left to right. They were: the Public Health Distinguished Service Medal, Public Health Meritorious Service Medal, Surgeon General's Medallion, and finally the Public Health Service Achievement Medal. She was not given the Surgeon-General's Medallion simply because she was now ex officio, Surgeon General. Seven years previously, during the aftermath of Hurricane Katrina, she went searching for any victims to treat, and by extension, comfort. One day, she happened upon a little girl of five years old, with long brown hair that reached down her back, as well as pearlescent blue eyes. The little girl, by the name of Amalia had a shattered pelvis, two broken legs, and lacerations to her chest and abdomen. As soon as the young 22 year-old Captain laid eyes on her, she ran over to her with her bag of medical supplies, and immediately began treating the little girl. Amalia opened her eyes and said "What's your name?" Emily smiled, with a look of pain in her eyes, caused by the young girl's horrific condition, and said "Emily". Amalia giggled through her pain and said "You look like an angel". "I'm Amalia, by the way".

Emily found it hard to suppress a smile at that one. She was wearing her "Summer Whites" uniform to keep as cool as possible in the stifling humidity of New Orleans, Louisiana, which

explained why she was thought of as an angel by this sweet little girl. Suddenly, the little girl let out a blood-curdling scream "It hurts! It hurts!" "OWWWWW!" "It's okay sweetie, you'll be alright", said Emily. Simultaneously, she reached for a vial of fentanyl, and loaded it into her syringe to administer the pain relief. Emily fairly yelled over the radio for a spinal board to immobilise Emily, and for a helicopter to carry out an immediate evacuation. Five minutes later, though it seemed like a lifetime to the both of them, the helicopter arrived. The Bell JetRanger II immediately took off for Bayne- Jones Army Community Hospital, in Vernon Parish, which had the necessary medical facilities to treat Amalia. Emily held Amalia's hand all the way, and only left her side when she was rushed into theatre for life-saving surgery. Six and a half hours later, Amalia emerged from theatre, and was placed in her own room. Emily was waiting nervously for news of Amalia's progress. Suddenly, a nurse came up to her and said "She's fine, but will need to learn to walk again, the Army will cover all her current and ongoing costs for you, Captain Field."

Amalia was wheeled into the room where Emily was. Emily walked over to squeeze Amalia's hand and give her a kiss on the cheek. Amalia sat up and suddenly said "Mummy..." in a small, whimpering voice. She was looking directly at Emily. Emily was startled, but she was about to receive an explanation to why she'd just been called 'Mummy'. With that same direct stare, Amalia said "My mummy and daddy were very, very mean to me. They hit me and screamed at me for the littlest things. I tried so very hard to make them happy, but they didn't even want to know that I existed. So, one day I prayed that I would be taken away and given to a caring Mummy who would love me, and want to play dress-up with me." Suddenly, a heart-rending scream and crack was heard. Emily realised that it was the sound of her heart breaking out of sadness for this little girl. The scream was also in her head, at her horror of Amalia's 'upbringing'. "And now she's here", said Amalia with a heart-melting smile. Emily walked out of the room, and filled out special expedited adoption papers. Two days later, Amalia became Emily's daughter. Three days after that, she was dressed in her "Dress Blues" uniform to receive the Surgeon General's Medallion for what she did for Amalia.

The reverie suddenly stopped for Emily, and she became dimly aware of the NASA representative asking her something. "Ms. Field, we know that your partner Henry Page is one of the proud

astronauts currently in the spaceship Orbital. We'd love to invite you to come to the facility, take a tour, and see how he is doing. Would you like to come?" That last question felt as though someone had spoken that from a great distance away. Just a few days ago, she had turned down Henry's marriage proposal, and did not feel particularly inclined to visit a place where they had shared so many memories together. You see, Emily had Asperger's Syndrome, a form of autism on the 'high-functioning' end of the autistic spectrum. She had trouble making friends because she was so introverted, and socially unskilled (or at least, much less skilled compared to an ordinary person). But, when she found Henry, her whole world changed, and it took her a long time to come to terms with that. She preferred going out to restaurants with either Henry and Amalia, or her close circle of friends rather than at a concert. That, or a good book.

Since she had turned down Henry's first marriage proposal, they had agreed to marry in two months, in order to give Emily more time to get used to the idea of being married, and sharing her inner-most secrets with Henry. Although she had shared most of them, she hadn't shared these deepest ones just yet, and that was why she turned down his proposal. Reluctantly, she agreed to the NASA representative's question. "Excellent, I'll see you tonight at nine p.m." he said. With that, he was shown to the front door, and departed forthwith.

Emily turned around and walked up the stairs, and knocked twice, and opened the door. Inside, the room was violently pink. There was a bed with a cast-iron bed frame. It had pink frilly pillows, a pink duvet, and a pink blanket. There was a computer, which was turned off, and a desk, with a chair and table, too. Amalia was seated at her desk, writing in her diary. Seeing Amalia do this brought a smile to Emily's lips. The imagination of a five-year old had no bounds. She wondered what it would be like to have a peek at the world through a five year old's eyes. Emily crept up behind Amalia and started tickling her hips, to which Amalia immediately shrieked with laughter and said "No! Don't!" in between gasps of laughter. After they'd recovered from their fits of laughter, Emily asked "Would you like to go with me to Cape Canaveral, sweetie?" Amalia replied "Will we get to see Henry there?" Emily didn't say anything, but a grin stole across her features, like a slow sunrise. Amalia started cheering with happiness. They went downstairs, and Emily ordered pizza for dinner.

Cape Canaveral, Florida

Several kilometers away, were Henry Page, Ryan Jarvis, Tom Carver and Jim Bauer. They were waiting for Emily and Amalia to show up. About twenty five minutes later, they did. Emily and Amalia walked towards the five men. Henry's eyes lit up, and he swung Amalia around, which elicited fits of joyful giggles from her. Jim stepped forward and introduced himself. "Hi, I'm Jim Bauer. I'm the psychiatrist for the Orbital team." "I see", said Emily. "What exactly do you specialise in?" "I specialise in long-term isolation/separation impact. What that means is, I help the crew of the Orbital space missions prepare for, and minimise separation anxiety and teach them techniques to both recognise the triggers and deal with its effects, or in other words for this case, homesickness. A crew member who is highly homesick becomes a drain on the crew, as that person is not able to perform their specified duties properly." Next, came Ryan. "Hi there, I'm Ryan Jarvis, the CAPCOM for the space flight." "CAPCOM?" said Emily. "Capsule Communicator" clarified Ryan. "I'm basically the radioman" he said. Suddenly, footsteps could be heard. The Commander of the crew's wife, Andi Rhodes, along with the

crew's doctor's wife, Lesley Taylor, could be heard approaching the room. They all introduced themselves to one another. The party all moved off to tour the Mission Control Centre, or MCC.

Emily turned to watch the live viewscreens and Emily felt a twinge of apprehension as she prayed he would be alright. If something went wrong, there would be nothing she could do, and that scared her most of all.

CHAPTER TWELVE by R. Dale Guthrie

"I've said it before, and I'll keep saying it until someone does something!" said Lesley. She had observed Pete over the last several weeks deteriorate under the strained conditions aboard the Orbital. "I want you to turn that radio thing on and tell them to help my husband."

Jim Bauer observed her agitation. It was normal for her to be concerned over her husband's behavior, which had been growing more and more erratic. He suspected that the pills the doctor was popping weren't helping, but the orders from on high were to observe, and intervene only in emergency situations. "I'm sorry, but I have no authority over the operations of this mission. I'm just here to observe and advise."

"Then advise them that my husband is going to hurt himself. Just look at him," she said, pointing to one of several monitors on

the wall. It showed him floating in a fetal position, tumbling slowly in crew's sleeping quarters and bumping into the walls occasionally.

"He is certainly going through a tough time, but it's important for us to study his coping mechanisms, so that they can help us predict what the crew must be prepared for on a real mission. Everyone up there has had the same training, and they know the signs of stress and how to help alleviate them in themselves and others."

"But they're not doing any of that, and you can see that as plainly as I can," she paused, tamping down her frustration. Getting hysterical in the face of this man wouldn't do her husband any good. She could see the clinical detachment in the psychiatrist's eyes—he wasn't going to help. Not yet anyway.

"I'm sorry, but we're just going to have to wait and see how he deals with his stress. If things escalate, or he does anything that might cause himself or others injury, then we'll intervene."

From one of the couches arrayed for the comfort of observers, Emily Field said, "What's he doing? Isn't that the air lock?"

Leslie and the doctor turned to the screen to see Pete Taylor slowly float into the open airlock door, the automated male voice

of the space ship announcing, "The inner airlock door is open."

Emily gasped, "Oh my God," behind her hands.

"Now are you going to do something?" Leslie said, but the doctor had already dashed off, presumably to find the flight director. She turned back to find the view from inside the airlock itself, just as the doors closed, with her Pete inside.

"I just can't see leaving the decisions on what's okay to do, and what's wrong to do, to a bunch of guys who abstain from some of the best parts of life. All that abstinence has got to warp a man's priorities" Jacob said. He'd debated the tenets of just about every major and minor religion with Michael so far, but this was the first time he'd Catholicism had come up. He was regretting almost every word that tumbled from his lips, but somehow he couldn't help trying to goad the amiable pilot.

"That's not the point," Michael said. "You're getting too caught up in the details..."

"You always go after the details when we talk about other religions. Why not your own?" Jacob wanted to hit himself in the head. Why couldn't he just change the subject to Pastafarians?

"Listen, it all comes down to the human soul. What's good for

it, what's bad for it. So what if the theologians get a little more uptight than is absolutely necessary? I mean, look at the ship around us."

"The ship?"

"The ship. It's not like they built it just sturdy enough to not fall apart, but no better than that. There's all sorts of over-engineering involved in the making of this thing, and I for one am thankful for the extra effort."

A klaxon echoed through the many speakers and through the metal walls of the ship. "The inner airlock door is open," said Morris, it's male persona grabbing their attention while it's actual words sank in.

Jacob was almost relieved by the interruption, until he parsed what the mechanical voice had just told them. "What the hell?" He launched himself to the comm panel and punched in the sequence for a ship-wide announcement, "All hands report your current location!" To Michael he said, "check out the air lock, keep everyone away from it, and be prepared to seal off that whole chamber."

Michael suppressed a salute, which would just send him spinning, instead launching himself to the exit with a terse, "yes,

sir."

Henry Page chimed in on the comm, "in the lav, commander," just as Science Officer Nicola Haven swung into the tiny kitchen and mess hall chamber, barely avoiding a collision with the stocky pilot.

"It's Taylor," she said.

"You saw him?"

"No, but he's the only one left."

Jacob pressed a couple of buttons on the comm panel and said, "This is Commander Rhodes. Page, Gordon—I want you both at the air lock. Keep Doctor Taylor away from the airlock. Use force if you have to.

"The inner airlock door is closed," the automated voice announced.

"Shit!" Jacob launched himself through the portal and to the docking chamber, Nicola followed close behind.

They arrived in moments to find Michael Gordon pounding on the inner airlock door, his face pressed against the thick glass window. "Open up now, Taylor. Now!" he repeated, thumping his fist against the solid door to little effect. To Jacob he said, "We need Page in here now, Commander. I think he's locked the door from his side."

"First order of business," said Henry as he squeezed past Nicola into the cramped docking section of the Orbit, "is to give me room to maneuver. I may need a strong arm or two, so Michael stays, but everybody else, on the other side of that door."

Michael looked to Jacob for confirmation, which he got in the form of a nod and Jacob gliding past him to the next chamber over. Nicola made room for him, and then then both peered through the open portal between chambers.

"Second order," said Henry, mostly to himself, "is to secure the outer doors." He pulled a small tool from his sleeve's pocket and got to work.

In the next chamber over, Nicola pulled herself away from the spectacle to the comms panel and keyed in the code for the air lock, muttering, "Could really use a psychiatrist right about now."

"Don't you have some kind of override or something?" Lesley said.

"No, the best we can do is reopen comms," said Tom Carr, "and that's going to take some time."

"What? Why? Can't you just press a button and start talking. I

need to talk to my husband!"

"I understand Mrs. Taylor. We're working on it, but I can't do anything right now. The transmission uplink is out of alignment, so we literally can't talk to them right now."

"But we can see them, why can't they see us?" she was suspicious of the the techno-babble the so-called flight director was spouting. I just sounded like excuses to her.

"It's like the difference between seeing a target a mile away, and actually shooting the target. The transmission from the ship is targeted for the Earth in general, and we just pick it up like a TV signal, but talking to them is harder because relative to our position here on the ground, they keep moving through our sky, just like the Moon," he ran his hand through his hair, trying to maintain his outward calm in the face of her distress. "Now if you'll excuse me, I need to talk to the CAPCOM and see how he's doing with that."

"Please hurry," Leslie said as he left. She drifted back to the screens. Try as she might, she couldn't help but glance at the external camera that was pointed at the still-closed airlock, and only then back to her husband who had his head pressed against the wall, his body blocking the view of the control panel.

Emily walked over and put an arm around her. "They get this sorted out, I'm sure. They'll fix the transmitter and then Doctor Bauer will talk Mr. Taylor down. Besides, he can't open the airlock without the Commander giving the okay, I bet. There's a lot of safety protocols for this kind of stuff."

Leslie took what little comfort she could from the younger woman's reassurances. Together, they stood vigil as the crew of the Orbital struggled to override the airlock, and her husband began to quietly bump his head against the wall, both hands wrapped tightly around the grip handles surrounding the control panel.

Henry Page was cursing as he grabbed for a screwdriver floating next to him and sent it ricocheting through the chamber. Michael Gordon deftly snagged it mid-air and handed it to the engineer.

"Okay, here goes nothing," Henry said as he twisted the screwdriver.

A klaxon sounded for at least the tenth time since they'd been at it, and the familar, commanding voice of the space ship repeated, "Inner airlock opening sequence override cannot be engaged at this time. Outer airlock opening sequence has been engaged."

"I fucking know that, Morris, you useless pile of silicon!" he

said, punching the wall next to the open panel. A screw popped loose and began drifting past him, which he snagged and stuffed into his breast pocket while simultaneously arresting the rotation his punch had initiated. "Commander, I think we're going to have to apply brute force. I can't lock the outer door, without destroying the circuitry, which might just pop it open and leave it open permanently anyway."

"Dammit," said Jacob said, shaking his head, "I can't authorise that, and you know it. He could pop the outer doors and we'd all get sucked out with him."

"He wouldn't do that," Nicola said, "not if he knew that we would die too. I don't even know if he'd kill himself in the first place. Isn't he Catholic or something? Doesn't that mean he'll go to Hell if he commits suicide?"

"Something like that," said Michael, "It's a mortal sin. But I don't think he's right in the head, with all those pills he's been popping. We can't count on him thinking about what happens next."

"Then why don't you remind him?" said Jacob.

"What?"

"Get on the comm and talk to him about mortal sins and

whatever else you can think of that will keep him from opening the airlock. Like how his blood's going to boil in his veins and then freeze solid in a few seconds," said Jacob.

"Commander, I'm not trained as a medic. Or shrink, or whatever it is you're asking me to do. I fly planes for a living."

"I'm not asking. You and he share a belief system. If he's going to listen to anyone as to why he shouldn't open up that chamber to vacuum, it's going to have to be you. So get on that comm and start talking Sunday School lessons."

Michael swallowed his objections and bent his mind to the task as Henry carefully manipulated the comm panel as it drifted at the end of the wire bundle that tied it in with the ship's electrics system. He nodded to Michael.

A slow, rhythmic thump and a shuddering, phlegmy breath drifted from the speaker. Michael said, "Doc? It's Gordon. What's going on in there?" Pete's only answer was more sobbing. "We need you to lock down the outer door. Can you do that for us?" More sobbing. "You know this is wrong... there's no confessional outside. You don't get a second chance."

"What the fuck do you know about sin? You just do whatever you're told to do, like a nice little choir boy soldier automaton.

Pathetic, mindless, shallow."

"Fuck you! You're not just risking your soul, you selfish ass. You open that door, and you risk the entire ship." He pushed off from the comm panel, his face on fire with anger. "Somebody else is going to have to play head-shrinker."

Nicola glanced at Jacob, and he gave her a nod. She pushed herself over to the panel, and then toggled the comms back on. "Pete, it's me. Please come back inside and let's talk this through."

"Go away," he replied with a groan.

"You know I can't. I'm sorry for how I reacted. I should have been less harsh. Please don't hurt yourself over me. I couldn't live with myself."

"I can't. I can't. She's going to find out, and then she'll leave me."

"No. No she won't, Pete. I won't tell her. Nobody on this ship is going to talk to your wife anything that might upset her. Besides, it's a pressure-cooker up here. She wouldn't blame you for a little slip-up. It's not like anything happened anyway. It's not a big sin to just make a pass at someone, is it?" She looked at Michael for confirmation, but he just shrugged. "Anyway, it's not like we did anything. There's nothing to forgive, but if you need forgiveness, well, I forgive you."

Henry had drifted over to the tiny window in the door and was peering in. He caught her eye and shook his head minutely, then turned back to watch the doctor. Through the speaker grille, they could hear him thumping his head against the wall, and his weeping resumed. Worried glances passed among the rest of the crew, but no one there knew what else to do.

Jacob switched on his own comm, which was next to the entrance. "Doctor Taylor, I know things have been hard on you. It's been hard on us all, cooped up here with no word from home. We've trained for this, and I know they're working on re-establishing communications with us. If all else fails, we'll climb into the return capsule and return to Earth when we've done the remainder of our five-twenty." The thumping stopped. He looked up at his engineer who was squinting hard through the glass, muttering something about the doctor finally listening to reason.

He continued, "What you're feeling now isn't real. It's just the isolation playing with your head. We all took the training to deal with this kind of thing. Remember that training, listed to your crew mates, and come back inside."

Pete's voice, becalmed and pensive, answered. "It's not real.

That's it. Not real."

"Oh, shit," said Henry. Through the speakers and the walls, they could hear the pumps sucking the air out of the airlock, and Pete's voice repeating, "Not real," over and over as it raised in pitch and became strained, until finally there was silence.

The klaxon sounded, and the ship's voice announced "The outer airlock door is open."

Henry pushed gently away from the window, his face ashen. Everyone else stared at the tiny, dark window reflecting the light back from the room, making it impossible to see out. Still, they stared. In silence.

All was silence just outside the skin of the Orbital, where Peter Taylor exhaled his last breath and watched it turn to frozen dust before the intraocular fluid in his eyes crystalized, his eardrums burst and the blood vessels in his skin erupted into the most deadly form frostbite possible. He convulsed, vomiting only to have the sputum freeze in his gaping mouth, and then he was still, his body rapidly cooling in the vacuum of space.

The silence stretched from their orbit at the Lagrange point between Earth and it's lone Moon, 60,000 kilometers down to Mission Control. No voice was raised, no sound accompanied the

images from the Orbital spacecraft, as they watched Dr. Peter Taylor die.

CHAPTER THIRTEEN by Tim Edwards-Hart

Silence. The mission control room was as quiet as the void in which Peter floated. Like everyone in the room, Dr Jim Bauer stared at the giant screen, frozen. For a moment, he was unaware of anything else as he watched Peter Taylor die. Thirty years of psychiatric medicine hadn't prepared him for this. Then the screaming started.

Jim looked down from his viewing platform to the room below. Of all days, today was the day when the crew's family were allowed on the control room floor. Jacob's wife Andi, and their 15 year old son Peter, stood at the control desk immediately below Jim and to the right of the Flight Director's desk. With them stood Henry's girlfriend, Emily Field, a nurse. She looked like she was praying under her breath.

Beside them, in the centre of the room, sat Flight Director Tom

Carr with a face of stone as he watched the giant wall-screens. To his left was the station for the new Missions Operations Directorate Meryl Hamer. She stared at the screen, her face ashen. The Capsule Communicator, Ryan Jarvis, was front left; a panel of private monitors on his desk mirroring the larger displays. As a veteran astronaut, all mission communication with Orbital went through Ryan. Although he had been training for this mission, given his age and the duration of the mission, he knew his chances of selection had been slim, so was eager to act as CAPCOM. Scattered along the front and centre rows were the handful technicians needed. With Orbital being largely self-sufficient, the technical requirements were lower than standard missions.

The screaming came from Lesley Taylor, Pete's wife. Standing beside Meryl's desk, her eyes were fixed on the video feed as she cried. "PETER! Pete! What just happened? PETER!! Bring him back! Oh God! Bring him BACK!! PETER! PETER!!" She turned to Tom, then Ryan, then back to the screens where Peter's body could still be seen, drifting, "Oh God, bring him back! Mary Mother of Jesus, *save him. PETER!!*"

Tom glanced up at Jim, making a scissors action with his fingers near his ear. Jim nodded and Tom cut the feed from Orbital.

"CAPCOM! Your ears only!" he barked into the loops as the screens went blank. Ryan blinked twice, then signalled acknowledgement. Responding to Tom's commands through the loops, the technicians returned their attention to their stations, redirecting information to the consoles on his desk so he could monitor the status of Orbital as the crew talked to Ryan.

Startled by Lesley's screaming, Peter was saying, "Mum, what happened to Pete? Is he dead? Why did he do that? Mum? What about Dad? Is he OK?"

Andi grabbed Pete, hugging her son tight. "Shh, Petey love, shh. Dad's fine. He'll be fine." Tears flowed freely down her cheeks as she stroked his head. Emily reached out a hand to Andi's shoulder, but whether it was to give or receive support she didn't know.

Jim was going to have to do something about the families, but his first priority was the crew. Jim buzzed Tom's desk, "Director! Crew status?"

"Ryan?" Tom looked over to Ryan, who held up four fingers then gave a thumbs up, never looking away from the screens on his desk. "It's four green, Doc."

Jim looked back to Lesley. She was still standing beside Meryl. When the screens went dark, she was momentarily silent, but then began to call out, "Pete. Pete? Pete" over and over. Quiet at first, but then the volume of her calls rapidly increased. Soon she was yelling again, "PETER!"

Suddenly she turned to Tom, "You bastard! You fucking bastard! You killed my husband, you killed my Pete! You bastard!!" As she lunged towards Tom, Meryl stood in front of her, grabbing her in a bear hug to hold her away from Tom. "Get off me you bitch, you conniving cow! You planned this didn't you? You knew, you knew! You and Tom, you made this happen. You *knew*! PETER!!"

Jim decided what to do as he raced down to the control room floor. Passing Emily he yelled, "Medkit! Second door on the left, wardrobe, leather case. GO!" The young nurse sprinted from the room as Jim yelled to the boy, "Peter, I need your help too."

Peter looked to his mother. When she nodded her assent, "Go Pete, you're needed," he followed Jim.

Stepping behind Tom, Jim called to one of the technicians, "Johnson! Code Grey! Repeat, Code Grey. Call security, then get your arse over here. Petey, stay between Mrs Taylor and Director Carr until security get here. We need to keep your dad safe and that's Director Carr's job. Your job is to keep him safe." Meryl was still struggling with Lesley, managing to keep the woman's fury away from Tom as she continued to yell obscure accusations. As Jim reached out to support Meryl, Lesley broke free, stepping away from them both towards the side wall. Wild eyed, she looked at Meryl, "You didn't know, did you? You're a puppet too!" Looking around the room she yelled, "You're all puppets. PUPPETS! Except you!" She directed this to Tom. "You knew. You killed my Pete because you knew. Oh, Pete. PETER!"

"Lesley! Lesley, listen to me. Can you hear me Lesley? It's me, Jim" Jim stood in front of her, arms open.

She stared blankly for a moment, then looked at him, "They killed him Jim. Did you know that? My Pete, they killed him!" She clenched her fists and screamed once more, using every part of her body to fill the room with her grief. As her breath ran out, again there was silence. In the stillness, Jim could hear Andi crying and in the corner of his eye he saw Johnson step towards Lesley. Jim gestured for Johnson to stand down. Lesley sank to the floor, sobbing, "Pete. Pete. Pete..."

Squatting beside her with one knee on the ground, Jim again showed her his empty hands. "Lesley? It's Jim." This time Lesley didn't reply. "Les, we need to help the rest of the crew, we..."

Lesley looked up sharply. Narrowing her eyes she asked, "Help them? Did they know too? We should tear this place apart and let them rot. Murderers! MURDERERS!"

As she started to rise, Jim put a hand on her arm, "Les, we've known each other since Pete was an intern, will you listen to me?" She looked at him, her eyes were still wild, then crumpled to the floor, whispering "Pete, oh Pete".

Jim felt a touch on his shoulder. Emily had returned with his medkit and had already opened it on the floor beside him. "I used to do night shift in Emergency, thought you might want this" She showed him a vial of Midazolam. "10mg?" He nodded, then turned back to Lesley as Emily prepared a syringe.

"Les, I want to talk with you. But first, can I give you something to help you calm down? Lesley?"

Lesley looked at him. "It's a sedative Lesley, like they used to give you at the hospital. But it's just me this time Les, just me. Will you let me do this for you?" She nodded, once, reaching for the crucifix around her neck as she shrunk against the wall. Jim took the syringe from Emily and, continuing to calmly explain his actions to Lesley, administered the drug. Turning to Emily he asked, "Can you observe her? There's Flumazenil packs in the kit in case of respiratory depression, she's not on script so 5mg at 60 second intervals prn. She'll need a suicide watch for the next few days, can you arrange that?" He turned back to Lesley.

"Les? Emily's going to look after you for a while. Is that OK Les? She's a nurse." He looked up as Security approached, "Look, here's Hopo and André. They're good men Lesley, I trust them. They'll help get you to a bed where you can rest. I'll come and check on you soon, and we can talk after you've had a sleep." Turning to André he said, "Take them to the residential wing, you'll need to carry her in a minute once the sedative kicks in. Under my authority, nurse Emily is responsible for her care. Maintain Code Grey until further notice." He stood back as the two guards helped Lesley to her feet and half carried her from the room.

Emily efficiently repacked the medkit while she repeated Jim's instructions. Jim reassured her, "You probably know all that better than me Em, it's been a while since I worked an acute psychiatric ward. If you have any concerns, send for me." Satisfied, Emily took Andi by the hand and followed Lesley into the corridor beyond.

Peter looked to Jim who said, "Thanks Peter, I'm sorry I had to

involve you like that, but I'm very glad for your help. You did well. I didn't have time to ask you just now, but can you help Emily observe Lesley? She's in shock and I suspect she might try to hurt herself Peter. She needs to be watched closely for at least a few days to ensure she's safe, and I'd rather have people she knows with her. If you all stay together in the residential wing, you can watch out for her and you'll still be nearby so you can talk to your dad once things have settled. Can you please explain that to the others? Is that OK? It's important you're all nearby." Feeling like an adult for the first time in his young life, Peter mumbled his agreement, then hurried to catch up with Emily and his mother.

As soon as they had left, Tom said, "I'm sorry Jim. Really, I'm so sorry."

"What are *you* sorry for? Looks like trauma-induced psychosis. Given her history, she probably handled herself well."

Tom looked momentarily taken aback, "Well, er, it's a shock for all of us, but... well, I know you were close to Pete and Les, so that must have been especially difficult—."

"Leave it Tom! We don't have time for introspection, we can save it for our pillows. We've still got four crew up there. Let's do our jobs first and decide whether to call them in. If we do cancel the miss—"

"We've got to continue." Meryl's interjection surprised Jim. "If you call them in now, the whole project's a loss! Protocol 7 was designed for exactly this type of contingency. We need to know that a long-haul planetary mission can continue even after the cessation of crew."

Jim had expected Meryl to carry the party line, but he had not thought she could do it with such cool conviction. Jim noticed Ryan tense at the phrase, "cessation of crew" and saw him rise from his seat as she continued, "The board are clear: the risks were known and the cost of cancelling the mission is unsustainable. We won't get another chance before the Chinese and Russians launch."

This was too much for Ryan. "They're not dollars up there, they're people. They're our colleagues, our friends. Hell, it could have been me up there! It's our responsibility to keep them safe! Tell her Tom!"

"Back to your station CAPCOM! I don't want to miss a syllable that Orbital might send our way!" As Ryan stared at his Director, Tom added, "They're my friends too Ryan." Jim watched as Ryan returned to his seat. Jim could tell he was still listening though, he hadn't he hadn't replaced his ear piece. Tom turned back to Meryl. "With respect, that's not your call and the board has no jurisdiction. As Flight Director the decision is mine. Crew safety is paramount."

Meryl stood her ground, holding Tom's gaze, "You know the contingencies Tom. Protocol 7 applies."

"Only if there is no immediate risk. Jim, as Chief Psychiatrist, do you believe the remaining crew are at imminent risk?"

"Based on the little data we have so far, no. The psych team will all flight and ground crew journals, and we'll interview all flight crew when we can, but in the absence of more data there's no reason to think either crew or mission are at imminent risk. Increased risk, definitely. Imminent risk, no."

"Ryan, you heard that. If you were up there with them, would you to be called home?"

Ryan looked back at his screens. The tension dropped from his shoulders as he used a loop to reply, "No sir. If you called us in after the risk had passed, I'd be angry at you for the rest of my days. Protocol 7 applies." He replaced his ear piece.

Meryl relaxed and returned to her seat. There was no pleasure, no relief, in her face. A single tear rolled down her cheek as she gazed up the blank screen.

Jim started to relax too, leaning on the desk to the right of Tom. For some reason, he thought of Emily's figure as she carried his equipment out of the room, and her blond hair reflecting the fluorescent hallway light as she passed through the door. Puzzled by his own train of thought, he was startled back to the present by Tom's next question. "Why did you get the boy to protect me? He couldn't fight off a paper bag."

"He needed something to do Tom, he needed to be needed. Guarding you was all I could think of at short notice. I didn't think Les could get past Meryl, let alone me as well, so the boy was safe. But he had just seen something that no kid should see, that no-one should see, and he needed to be given some control."

"Is that why you asked him to watch over Lesley? Asked him to tell the others to stay in the Res Wing?"

"Partly, yes."

What about the Code Grey Jim? Why maintain it? Lesley's sedated now, but the whole centre's still in lockdown. No-one can enter or leave."

"We have to keep the families here Tom, at least for the next week or so. That's why I sent them to the Res Wing, and that's why I maintained the Code Grey." Jim could see Meryl nodding as he continued, "The Code Grey is an interim measure, but the lockdown will be needed for days, if not weeks. We can't let them out, not yet. Not until we have this under control and we know how to spin it."

CHAPTER FOURTEEN by Lee Powell

The crew circled Henry in the main recreation area. He didn't notice them; his mind was busy percolating a journal entry he'd read years before of Cosmonaut Valery Ryumin whilst on the Salyut 6 space station:

"All the conditions necessary for murder are met if you shut two men in a cabin measuring 18 feet by 20 and leave them together for two months."

What perturbed Henry was that he not only understood Valery's entry now; he felt it. He lifted his moist emerald eyes from Michael's sullied Nike socks to his stubbly chin. His mouth was moving, but Henry couldn't hear him - he just floated there listless, watching Michael's yellowed teeth gnashing together in disgust. His spit sprayed into the cabin and floated near Henry's face. Henry blinked slowly and lifted his eyes further ignoring the agitated veins popping from Michael's forearms. On the wall over Michael's left shoulder were the words, "THIS WAY UP". Henry's eyebrows arched cynically as he contemplated the meaninglessness of the words. Tilting his head backward he met Michael's stormy eyes and felt the warmth of the others' stares on his neck.

"All those ivy league degrees and you can't even keep a damn door closed!" Michael shouted.

"He's in shock," said Nicola.

"Why didn't you stop him?" said Jacob.

"Sit him down!" said Nicola

"And how the hell do you propose we do that?" said Michael.

Henry noticed her lips for the first time, they were pursed with frustration and sadness; she looked exhausted. Her skin sallow like Pete's had been before...the image of Pete's crazed face and frenzied hands on the outer hatch door began to rape Henry's consciousness again. Henry could feel his breath shorten and fatten. He began coughing and clawing at the zipper of his tracksuit collar with his manicured fingernails. He buckled forward and vomited for the third time in 24 hours.

"Henry you okay...Henry!" said Jacob.

"Too fast...he just floated off."

"Henry, I need you to focus. Nicola capture that." Jacob

demanded pointing at the floating vomit and then to a stash of overhead plastic zip-lock bags.

"Why didn't you open the airlock and secure the outer door!"

"Great idea Michael why not kill us all," said Jacob,

"What happened with the emergency override?"

"He was wild, then just went to sleep - he looked so peaceful - floating off into space."

Michael lunged forward and shook Henry lucid.

"Jesus Christ!" said Michael.

"The Lord's name in vain again, what a good little hypocritical Catholic you are." said Henry.

"Fuck you!"

"Please!" said Nicola stepping between them with her palms held up in a plea for a truce, "Just tell us what happened?".

Henry took a breath and wiped the vomit from his lips onto his sleeve:

"Pete was upset when he came into the rest area, I could hear that. I didn't pay him too much attention as I was checking we were tracking to our Lagrangian points of orbit. He was in a hurry and said he'd left something inside the airlock. I feel bad; I didn't even look up. His voice sounded agitated like he was frightened about something; I don't know. He was going on about the solar flare radiation and a whole bunch of medical again."

"Like what?" said Jacob.

"Something about stems cells and chromosomal aberrations caused by radiation. The last words I heard was about 'a suppressed viruses present in our bodies being activated', that got my attention and I looked up as he was closing inner airlock door."

"He's been mumbling a lot of crazy crap." said Michael.

"I doubt NASA would recruit a doctor that mumbled crap. He was one of the best medical minds on the planet."

"What a turn of events, your standing up for him now." said Michael.

"I'm just saying he knew his stuff."

Jacob turned his gaze back to Henry:

"Why didn't you activate the emergency override on the outer airlock door?"

"I tried. I started to shout after him and rushed over to the door console but the emergency override took fifteen seconds to boot. I was too late."

"It takes a minimum of sixty seconds to open the outer door once the inner is locked. Fifteen seconds to boot gives you plenty of time to override."

"I guess I froze and panicked. I couldn't believe it was really happening until it was too late."

"We should have motion-activated video of the airlock. I can check." said Michael.

"Sure check it," said Jacob steadying himself on an overhead railing.

"Wait! I had to enter the override code too," said Henry.

"What?"

"The override code, it only needs to be entered after a clean boot of the system. Normally the system comes up in two seconds from hibernation mode."

"It still only took fifteen seconds." said Jacob.

"Yes, I know I'm not trying to make excuses - two seconds or fifteen may not have been enough to save him. My point is that I'm the only one with security access to re-boot the override system. Protocol ensures I do this once every seven earth days. The re-boot wasn't due for another forty eight hours." said Henry.

"Are you saying someone tampered with the system?"

Henry remained silent.

"Michael, I want you to check the system logs with Henry."

"We can't go on without Pete." said Henry.

"We can't afford not too." said Jacob.

"This mission is not about flying a spaceship Jacob. The crux of this mission was to facilitate detailed medical and physiological research on the impact on humans who experience extended periods in space. The most crucial role for this mission was Pete's: not ours. We can't go on. We should call Houston and let them know." said Henry.

"No one will be calling Houston until I say so," said Jacob.

The hum of circulating oxygen was the only sound until Jacob added:

"We have a fail safe backup with the medical manuals, they are detailed enough. I will start reading them."

"With all due respect Jacob, Pete had 23 years study and experience behind him and your proposing that we trust you with our lives with the knowledge of a single manual." said Nicola.

"You don't trust me?"

"That's not what I said. There's a zillion things that can kill us up here and without special medical expertise we're all likely to end up dead in six months."

"Are you ovulating?" said Michael.

Nicola tilted her head towards Michael and silently mouthed 'FU' whilst giving him the bird sign. She turned back to Jacob.

"We're not just talking about the adverse effects of long-term weightlessness, but also...," She begins to count on her fingers,

"Muscle atrophy, deterioration of the skeleton, slowing of cardiovascular system functions, fluid redistribution, nausea, vomiting, sleeplessness, vertigo, headaches, lethargy, cabin fever, Cataracts, blindness, bone metabolism changes, elevated calcium and kidney stone formations."

"So what else?"

"Same as Pete," said Nicola.

"What are you talking about?"

"The radiation."

"I'm fully aware the radiation up here is ten times that on earth. It's manageable."

"But the solar flare," said Nicola, "Pete bore the brunt of it in the Medical module, but we were all exposed. The medical manuals don't cover all the bases, and if he was right about activating this benign virus...."

"Enough! As I said to Pete, unless we can prove it objectively and scientifically then I'm not about to chuck a right turn back to earth and blow a multi-billion dollar mission on some 'feeling'. We don't have the luxury of subjectivity in space."

Nicola looked around at the others. For the first time, she felt like she did not belong here, in space, or in this man made metal womb with life sustaining veins of pipes and wires. Looking out through the airlock window into the darkness, she felt a jolt of sheer terror.

"I don't like it. Pete wouldn't have jumped ship without good reason." said Nicola.

"And a happily married man wouldn't make a pass on a woman either, unless he wasn't in his right frame of mind."

"How the hell..." said Nicola.

Jacob pointed towards a video camera.

"I know he was high on painkillers at the time too. He hasn't been in a good state of mind for a while." said Jacob.

Jacob, took a breath and put his arms on Nicola's right shoulder. We are all experts and professionals talking about something that we can't substantiate. We all know what we are doing. Between us we can do this. I have a wife and son, we all have loved ones. There's nothing I will not do to get us all back to them safely, but we can't quit now. This mission is far too important." "Henry, this airlock business is not over; Now get the comms link back up... No one talks to Houston without running it through me; No one!"

Henry wasn't so sure.

CHAPTER FIFTEEN by Mandrake

That was it for Jarvis. He'd walked on the moon with Tom Carr. He'd shared his darkest secrets with Jim Bauer to get on the team. He'd given his all to everyone. He remembered the first time they had met. It had been at the Special Air Training Wing. The new stealths were being tested. The test team had been assembled and met for the first time. There were severn of them. Right from the beginning, Tom made no secret of the fact that he wanted to go to the moon. The others all considered the possibility, a few of them actually talked about it. But Tom lived it. He had had no real training in science, and had got into the Navy Academy on the strength of his general intelligence tests, the fact that he already had a flying licence, which impressed practically everyone he had ever spoken to, and his father had been a general in the Air Force. That last one was the clincher. And then there was the moon. He

talked about it pretty much at the drop of a hot. We would say: But it's been done. And he would say: Not my way. And he was right. It has not been given the Tom Carr stamp of achievement. In the end, it had to be a covert trip, one of the several the US government ran to the dark side, where the secret bases, and the secret telescope was set up. Tom had been to the moon, but he could never tell a soul. The US government now regarded themselves as the owners of the moon, and for years had been conducting experiments up there: terrafarming, observing, running a tech base, doing geology, and communicating with the Aliens, who were able to freely share their technology up there away from the eyes of the world: the Chinese and the Russian. Without that Alien technology, there couldn't have been return trips to the moon. Hell, there couldn't have been a Mars program. It was all done on on technology that was only developed after the covert Dark Side program. That was something that no one could have known simply because no one could have so much as suspected. The tragic final Apollo voyage, on which the whole crew had been killed in a mysterious orbital accident on the dark side of the moon, had actually been the most successful space venture undertaken; nothing would ever come near it for daring and

ingenuity. A whole Appolo taken to the moon and left there, a massive installation for working with the Aliens. He'd been there with Tom. They'd communicated with the Aliens. They'd shared secrets with them, and the Aliens had shown them things they could not have stumbled over within another century. The Mars mission was the culmination of that arrangement, which was still going on. Both of them had known that nothing could get in the way. But now someone had gone too far. He was sure of it. Someone had exceeded their brief. Excess was not tolerable in the Program. How many times had they been told that.

As the Carr and Bauer stared at him, he knew that they were thinking that he could be depended to remain calm, and to support the project no matter what. They were expecting him to cave. But if that was that was the case the they, especially Tom Carr, had forgotten that they first loyalty of an astronauts is to his or her fellow astronauts, and Carr had ceased to be one of those when he had put on the jacket of the Head Flight Controller. When Jarvis found his voice, it was a shout.

"If I find out that you two engineered what just took place on the spaceship, I'll make sure you go to prison. That's a promise."

Carr smiled his reassuring smile, the smile he'd been using for

years to smooth things over, the one he'd used to get onto every program he'd been involved in, including this, one. Jarvis noted that Bauer had put on his concerned face, the one he used for patients, the one he might put on for the exercise of medical authority, of which he had a lot in the program.

"Now Ryan. Is that any way to talk to a Buddy. Hey, how long have we known each other. We were cadets together. We flew together. We've always trusted each other."

Jarvis was breathing fast. He turned to Brauer. Like Carr, Brauer and him went back a long way. Brauer might be a doctor now, a shrink of all things, but he remembered a time when he, like Carr had been a Navy cadet with him. You could say that the reason he was with the space team right now, was he has once been a part of the cadet corp, and had expressed a determination even then to fly all the way to the moon. But it was not to be. He had a run in with the authorities that meant that he had to be punished, and he was sent packing. It was rumoured that he had discharged for having it of with the Commandant's daughter, but even his buddies thought that this was improbable despite his good looks. It was something else. He had chosen to leave was the line given to the Academy gossip columns. He had simply decided that the Navy wasn't for him. Secretly, Bauer had confided in him that the reason was that a long period of absence he had experienced recently had actually been caused by a bout of labyrinthitis, which meant that he would never fly a jet, let alone a space ship. He had no choice but to leave, and leave in a hurry if he was to make the Harvard med programme, his second choice. So that's what he did. But the real truth was let slip by his father to Ryan's own father at some kind of old boy's dinner. Bauer had been recruited by some government agency training agents for special ops. They needed psychiatrists; hell, they needed a certain kind of shrink, and Bauer had fitted the bill. He was lifted out of the Academy for that reason. It wasn't a big secret, really. There was a lot of such recruitment going on. It was just work. But as Jarvis looked at Bauer in Carr's office, he thought about all this, about how the man he had once knew had become a stranger to him, even in the way he spoke to him. It was as if they had never known each other. This was a man who was capable of recreating his past, his present, or the past or present of those around him. That was the real reason he was on the Mars Program. That was possibly the real reason Taylor had just killed himself. He could, for all he knew, be looking at him.

"Hey, don't look at me like that. How I could engineer

anything? I'm a doctor. You're overwrought, Ryan. You need to take a deep breath and relax. Why don't we all sit down?"

"Don't give me relax. If I find out that either of you two were responsible for put booby traps on the spaceship to create emergences, like you did at the training facility, you'll be behind bars for a long time."

Jarvis didn't wait for a response, but stormed out. The mission still needed a CAPCOM. The matter would have to wait until the end of the shift.

When he was gone Car turned to Bauer. For a long time he said nothing. Had no intention of saying anything. But Bauer knew that he was choosing his moment. Planning his words.

"I know you and I know your type, Bauer, so let *me* ask you: did you orchestrate these problems?"

"No, Tom, I did not. How could I engineer a man ejecting himself from an airlock?"

"Oh, I have no doubt that you could put a man in danger if your wanted to. It's just your style."

"I think we have to consider the possibility, as a likelihood, that Peter Taylor committed suicide. He may have had, shall we say, issues."

"Don't give me that. You did psychological profiles of every member of the crew. How the hell did you miss these so-called issues?"

"I did psychological profiles. I did a lot of things. We both know that who I work for. We go back a way—and so does Jarvis—and one day we'll look back at these times and see that the things we did we had to do. Now, for your own sake, and for that of the program, let it go. There will be an inquiry. There will an inquiry because I will insist on it, and we will all come out of it squeaky clean. Trust me."

"You're asking too much. All I want is for you to do your job." Carr left Bauer in his office.

CHAPTER SIXTEEN by Dawn Oshima

"Good morning, Orbital crew. It is now 06:00 hours. Breakfast will be served in the galley at 0:700 hours. Please remember to sign up for your required exercise slot with the science officer at your earliest convenience. Have a wonderful day."

The cheery voice of the automated update system was almost drowned out by the staccato grunts of Henry as he paced himself on the augmented treadmill, sweat pouring down his face covered with various electrodes and . "It's a crime against humanity when you program the voice of an angel into the heart of a beast that sounds so sweet so bloody early in the morning."

"Don't take it out on Morris, she's only doing her job that's she programmed to do. I take it you're not a morning person."

"What's wrong with that?"

Nicola smiled and checked the readings on each of the monitors

lined up against the wall, recording each of her findings into her tablet computer. "Oh, there's nothing wrong with it but you'd think you'd get used to the early morning wake up calls by now."

Henry shook his head, more to shake the sweat out of his eyes than in disagreement. "I'm just a lowly engineer. Last one to bed, last one to wake up, at least that's how I like to schedule my days."

"Then why did you schedule your hours so early in the morning? Don't you think it's a little counter-productive?"

"I'm a complicated man, I'll have you know. All angles and corners, that's me."

Nicola shook her head and recorded the last of the readings into her tablet. A short beep from the control board signaled the end of the treadmill session. Satisfied, she turned down the treadmill speed until it slowed to a stop. "Okay, Mr. Complicated, I think that is all for this machine. I'll take those electrodes off and then it's the bike for you next. Don't move or I'll think you're in this for the pain."

Henry half chuckled, half panted as he leaned against the treadmill control panel, trying to keep still as the science officer gently removed each of the electrodes that recorded his various body readings. In a weird way, he actually enjoyed torturing

himself by dragging himself out of bed and hooking himself up to machines for a protracted run or cycling session. The sights he saw, the places he visited while under the influence of the endorphins pumping through his system more than made up for any inconvenience to himself and pushed him beyond himself. It was just another thing that Emily didn't...

"I'm sorry, Michael, but you will have to leave."

Henry shook off his daydreaming and turned to see Michael at the entrance of the exercise room. The pilot was dressed for a workout in a tank top and shorts but by the way he crossed his massive arms across his chest Henry figured that the man was not in a good mood.

"Why? I just want to work some free weights in that corner. I won't be in your way."

"That's not the point and you know it."

"And what point would that be, missy?"

Nicola straightened her tunic and deliberately walked to the big man until she was directly in front of him. She looked into his face as she placed her hands on her waist, challenging him without speaking, and stared at him for a moment.

"For your information my name is not 'missy' or any other cute

little nickname for that matter. I am the science officer on this mission and part of my job is to conduct these mandatory exercise regimens to determine how the human body holds up under prolonged exposure to zero gravity. I believe you were briefed on this as well as on my need to hold these regimens in isolation, Mr. Gordon."

"And you know as well as I do that as the pilot of this mission I need to keep fit so that I can do my job at a moment's notice, Miss Haven."

"The exercise room is off limits until I say that it isn't."

"And I say that I outrank you and that I'll exercise here if I want to."

"Like hell you will."

"So what are you going to do about it?"

Henry pushed his sweaty body between the two angry officers and raised his arms in placation. "In the interest of peace I'd like to cut this conversation short so we can get back to work. You know the rules, Michael, so out you go."

"You don't have the rank to tell me what to do."

"I guess I'll have to call the commander and ask him to throw you out."

Michael turned to stare at the younger officer with a slight sneer. "So this is where money gets you, a free pass to push hard-working people around. We'll see where that gets you. And you, little Miss Know-it-All, let's see how far you get with the rich boy here. I guess he's your type." With that he pushed past the bewildered engineer and blushing science officer and banged through the exercise room doors with a slam.

Henry rubbed his shoulder with a tired hand, wincing a bit at the bruised muscle. "I can't read that man. He's a cipher, that one is."

Nicola didn't say a word as she brushed past him to set up the augmented bike for the next part of his exercise regimen. He shrugged, figuring she'd had enough to think about other than some overbearing pain in the ass, and endured the second round of electrode application and wiring up to the monitoring machines before hopping onto the bike to start the cycling part of the regimen.

It wasn't until the end of the testing when Nicola finally broke her silence. "Would you mind if I ask you a question?"

"Go ahead, I'm your captive audience."

She smiled slightly and resumed checking her monitors as she

talked. "Why did you volunteer for this mission? I mean, I read all about you, I mean, in the briefs we were given and you could've done anything you wanted. Why space, why this mission?"

Henry cocked his head to one side as he continued to cycle. Why, indeed? What made this mission so special? He thought a good long while before he answered in a slow, halting manner so unlike his usual breezy self.

"I guess everyone assumes that if your family is wealthy then you can have the pick of anything you want. Clothes, cars, schools, even girlfriends. Name it and it's yours. But space, now that's one thing my parents couldn't give me. To fly into space, to see the stars and all that glorious...otherness, that's always been my dream. To see for myself what's up there, to fly, to be...free, you know? My parents meant well; they could get me into the right schools and call the right people to make the right connections but I got here by my own bootstraps. But everyone assumes...My girlfriend Emily, now she had to work for everything she wanted. Wouldn't take a dime from me, said she had to earn her own way. Worked her way through school and now she's a nurse. She's a special girl, she is. Emily..."

Nicola looked up from her tablet and looked at the engineer

staring off into the distance, cycling somewhere far away from the exercise room on an orbiting spaceship far above Earth. She bit her lip as she admired his face for the moment then shook herself out of the moment. "She sounds like a wonderful girl. I can't wait to meet her."

"What..."

"Oh, I'm sorry. Careful now, don't fall off the bike! I'd have a hard time explaining what happened in my logs."

"My fault, I was woolgathering a bit. You see, Emily's not my girlfriend anymore, at least I don't think she's waiting for me back home."

"What happened?"

"Well, I don't exactly know...you, know? Emily's a bit complicated, she doesn't say much like...like..."

"Like our esteemed pilot 'friend', you mean?"

Henry chuckled then sobered as he continued to cycle. "Yeah, she's a bit of a ciper too. But we always got on well and I thought that, well, that there was something there between the two of us. But when I said I was going into space she got real quiet and didn't say a word. To this day she won't tell me what's going on inside her head. Maybe she's scared I might die up here, I don't know. One day she's my best girl, the next day she's gone off to see her mum and won't take my calls."

Nicola nodded and went back to the bank of monitors, checking and making notes in her tablet, leaving Henry to cycle in silence, lost in the haze of what was and what might have been in his mind.

A short time later the short beep signaling the end of the cycling session sounded and Henry cycled to a stop, panting slightly.

"That's it for today, champ."

"How'd I do?"

"Not bad for an engineer."

"Don't be telling our pilot friend, he'd have a fit."

Nicola laughed as she removed the last of the electrodes from his chest. "Go on, off to the showers with you."

Smiling, Henry gave her a mock salute as he headed for the washrooms for a much needed shower.

CHAPTER SEVENTEEN by Waleed Ovase

Emily Field's blond hair didn't usually swing as she walked, but right now, her gait was more purposeful. She had to talk to Jarvis, and Jarvis would hear her out and listen to what she said, because if her suspicions were true, there could be lives at risk.

She walked through the bright fluorescent hallway outside Mission Control, pausing briefly to check the roster posted outside the door. The recycled beige paper showed all the shift changes for the mission. According to its heavily wrinkled schedule, Jarvis should be on duty.

Steeling herself for the confrontation, she walked into Mission Control, the large screens showed the live view from the Orbital. The leftmost screens showed outside views, the beautiful blue of the Earth against the harsh metal of the Orbital, while the rightmost screens showed something more special: the crew.

Henry Page was curled up in a sleeping bag, gently floating on the rightmost screen. Emily paused for a moment, staring up at him. Feelings immediately gushed to the surface, about their relationship, their life together on Earth, and most importantly, her yearning for him to return safely. The two of them didn't always agree on everything, but she thought they were meant to be together. She knew it just like she knew God existed.

"Can I help you Ms. Page?" asked the deep voice of Tom Carr, who stood at his Flight Director station. His steady gaze made her uncomfortable.

"I'm sorry sir, I was just looking for the CAPCOM."

"Check the canteen, I think he's on a coffee break," replied Carr in his somber tones. Carr returned to staring at the console and the screens in front of him.

"Thank you sir."

She quickly moved to leave Mission Control, but instead of staring up at Henry, still gently sleeping, her eyes caught Jim Bauer up in his office, his glasses perched on his nose, reading. There was something about him that Emily was unsure about. It wasn't like her to presume, assume, or judge, but something in the pit of her stomach made her uneasy about Jim Bauer. With her unease growing she left Mission Control, heading for the Canteen. As Emily left, Bauer looked up from his reading and watched the screens, just as Carr did.

Emily always thought that having better lighting might help everyone's mood. The constant beating of the fluorescent light made her uneasy, and she was certain she wasn't the only one.

Walking quickly down the hallway to the Canteen, she tried to repeat to herself what she would say to Jarvis. 'Hey Ryan, just wanted to ask you if you're worried as well about how my boyfriend, and the love of my life, may die on this mission?' No, she thought, she'd have to come at it a different way.

Opening the door to the Canteen, she quickly realized why it was a welcome respite from Mission Control. For one, the light was dimmed, and the chairs and tables that littered the area looked not only comfortable, but most of the chairs reclined!

A few technicians sat chatting in the Canteen, none looking worried or in any way affronted by the accidents that occurred on the Orbital. She scanned the room looking for Jarvis, his brown scruffy hair the instant giveaway.

Tucked in a corner of the room, Jarvis held onto what looked

like a mug of coffee with both hands. Emily quickly made her way through the scattered tables and chairs, nodding to a few technicians, but never making eye contact or stopping to chat.

She pulled a chair across from Jarvis and sat down. A uniformed waiter quickly walked over.

"What may I get for you Ms. Field?"

"Just coffee."

The waiter quickly walked away to fetch the coffee.

"So Ryan," she began, unsure of how to continue.

"Yeah Emily?" he replied. He didn't look up.

"I wanted to, uh, talk to you about something."

"Yeah Emily?"

The waiter returned and handed the coffee to Emily. She smiled and nodded her thanks.

Emily leaned over and took a quick whiff of Jarvis's cup, and smirked.

"You wanna share Ryan?" He finally looked up and she winked at him. Begrudgingly, he reached into cushion of his chair and removed a small flask, quickly unscrewed it, and added a healthy amount to her cup.

"What can I do you out of? I kinda wanted this break to

myself," said Jarvis.

"How's work?" she asked.

Jarvis looked up for a moment. "I don't really have anything to do since we've cut off communication for the moment. I feel a bit useless."

Emily once again steeled herself, unsure of how to continue. This sort of talking wasn't her thing. She was great with patients, the sick, the dying, anyone needing great bedside care, but this was another animal. She took a large gulp of the coffee-whisky mixture, felt the burn as it went down, and then looked Jarvis in the eye.

"I'm worried about the mission, I don't know....I don't know if we're going to get Henry back."

Jarvis's gaze didn't waver. "I'm worried too. Henry's a good enginee-"

"Don't give me that, everyone knows you wanted the position. Everyone knows how you wanted to be in space."

Jarvis's eyes narrowed, his brow furrowed and he wasted no time in retorting, "sure Emily, I wanted to be in space, I wanted to see Earth's curve as my horizon, but sometimes reality hits. That doesn't mean I don't care for this mission." Emily leaned back in her chair, unsure of how to continue. "I'm really worried about everything that's happening. Those accidents, those weren't..."

"Watch yourself. Don't say anything you'll regret." He broke his stare, and looked back down at his coffee. He took a few drinks. "They were accidents. For the moment."

"What do you mean, for the moment?" Emily's face looked hopeful. Maybe Jarvis was on her side. He scratched his head and saw the look of hope and worry etched on her face.

Jarvis looked around the room, eyed every table filled with technicians, looked at the wait staff and saw where they were in the room. Sensing a clear moment, Jarvis leaned over to Emily, and quietly whispered, "I think four eyes Bauer might have something to do with all this."

Emily leaned back in her chair again, thinking the statement over. She took a sip of coffee, and finally leaned forward again. "What do you mean?"

Jarvis sighed. How she couldn't make the connections on her own was astonishing. "I think NASA has given true mission control to the psych ward. These damn scientists are probably manipulating the Orbital, manipulating goddamn everything—"

She bristled at his cursing. He noticed her unease and paused.

"I apologize. I know how you cling to—"

"Just continue with what you were saying."

"Right. I have a feeling that Bauer is trying to create...," Jarvis paused and took a sip of coffee, "friction."

"Friction? So he can analyze their reactions?"

"That's what I believe."

"He could kill Henry," she whispered.

"Yeah, it could seriously get out of hand, the entire Orbital could become destabilized," said Jarvis.

Emily didn't hear him. She stared out blankly, thinking of what could happen. Images flashed in her mind of the multiple ways that the Orbital and its crew could die. A tear slowly fell down her cheek, as each scenario ended the same with Henry's death.

Quickly, she put her coffee down, clasped her hands together in her lap, closed her eyes, and uttered the Lord's Prayer under her breath. Jarvis watched in amusement.

As she mouthed the words 'deliver us from evil,' Jarvis muttered, "Ya know that won't help," as he took another sip of coffee.

Her eyes flashed open, a bit of fire clearly visible. "If you don't

think it'll help, then you'll have to," she snapped.

Jarvis snorted into his coffee. "I'll do no such thing Nurse Field."

"It's the only way, you're the CAPCOM," she pleaded.

"Yeah, and I don't have a death wish with the flight director, and I don't want to kill my career either."

"But—"

"But nothing. The point of this mission—"

"Is not for them to die Ryan."

Jarvis stared at his nearly empty cup, not knowing how to respond. He put the cup aside and held his head in his hands.

"Please, you could at least warn them."

Jarvis's voice came out muddled beneath his hands, "I can't. Any message that gets sent out is logged and cross checked through Mission Control and the Directorate."

Emily leaned back in her chair, pulling her feet up beside her. "There must be a way," she whispered, "we can't let them have their way and these guys—my guy— ends up dead."

Jarvis reached back into the seat cushion and removed the flask and took a swig. He offered it to Emily, but she refused, waving it aside. Minutes passed as Emily and Jarvis sat there. Jarvis checked his watch absentmindedly. He took another swig.

"When do you have to be back in Mission Control?" Emily asked.

"Soon. Not really. Isolation doesn't end for a while."

Emily stared at Jarvis as he took another swig.

Jarvis got up, stretched, and checked his watch again. "I'm going back to Mission Control to check in on things."

"But Ryan—"

Jarvis moved towards the door. Quickly he turned around,"I think I have an idea on how to get the message across," he said, and left. Emily sat there, not knowing what to think. Quietly, clasping her hands and closing her eyes, she prayed again.

CHAPTER EIGHTEEN by Astrid Stevens

Henry Page leant against the metal worktop in the cramped galley of the spaceship *Orbital*, stirring his drink listlessly in one of anti-gravity cups that the crew were beta-testing. His first mission wasn't turning out quite as he had expected. They had been in orbit for practically no time at all, and the initial enthusiasm and high hopes aboard the spaceship had been muted by recent events. Pete would be missed, and not just because of his skills as a doctor. You don't expect that sort of man, in that sort of role, to crack in such a spectacular manner, especially so early in a mission. He'd been a good bloke. And what an awful way to go.

Page sipped his drink, drawing the liquid up a grooved channel by capillary action, and pulled a face at the over-sweetened fake chocolatiness which no Aztec would recognise as being related to the cacao seed. The cup had a gasket in the top, through which you could stick a plastic stirrer if you wanted to pretend that the drink was a real one with contents that settled to the bottom, rather than a fake one with a uniform consistency throughout. Page had opted to stir today, really just to give himself something to do, but he was bored with it now. He drew out the stirrer, and pushed it through the rubber neck of the collection pot attached to the counter. Back home, in coffee shops, stirrers like that were disposable, but here on the spaceship... well, he didn't know what happened to them. It wasn't really the sort of thing you could just jettison through the airlock. If this anti-gravity cup mechanism ever caught on, with the number of drinks the crew got through every day, you'd end up sharing your orbit with hosts of these little white sticks. Maybe somebody washed them and put them back in the dispenser to be used again? He would have to find out sometime. Funny, that. As engineer, he knew everything there was to know about everything technical on the spaceship, but it crossed his mind had to wonder about the never teaspoon-substitutes. He imagined them dangling in space, in their thousands, dancing gently in the nothingness. And then his thoughts went back to Pete Taylor, who had jettisoned himself through the airlock. Where was he now? If Pete had let the

airlock's decompression phase finish, then just edged gently into space, might his frozen remains still be next to Orbital, hooked between the earth and the moon in some sort of Lagrangian purgatory?

He shuddered. It didn't bear thinking about.

The speaker on the wall crackled into life. Morris. There had been a series of soothing messages from Morris since Pete had... well, since Pete.... But this time the message wasn't broadcast in the reassuring voice of a woman. Instead, an authoritative baritone came through the relay. And a male voice meant that someone had to do something. Some sort of order from Mission Control, or an automated warning. Page stood up as straight as was possible, micro-gravity being what it was, and listened carefully.

"This is a warning. The ship is not safe. Repeat. The ship is not safe. *Orbital* is being manipulated. We are being manipulated. There are things here that should not be here. Check and double-check."

Then silence.

Page looked around him. The galley seemed eerily lifeless after that strange announcement. He stuck his head through the

doorway and looked out into the main recreation area. Michael Gordon was taking a break from his duties as pilot, hovering in front of a small screen, hanging onto a ceiling strap to keep himself from drifting off. He was watching some old film with a vicious-looking Tyrannosaur tearing the throat out of an obviously computer-generated Triceratops, and gave no sign of having just heard a disquieting warning.

"Sorry to interrupt your film. Did you catch what Morris just said?"

Gordon gave him a bemused look. "Morris? Nah, haven't heard from her for hours."

"Are you sure? I just heard a message in the kitchen..."

"Pressure's getting to you, mate," said Gordon, shrugging. "You need to get out more. You've started hearing things." Then he turned back to the dinosaur bloodbath.

Page faked a laugh, then withdrew back into the galley. His hot chocolate was nearly cold now, so he drank it in one gulp and deposited the cup into the waste unit, then he looked up suspiciously at the speaker, high on the wall. It looked fine. He floated up to it, for once grateful for the micro-gravity environment, and tapped it. Nothing untoward. It was a round,

black grid like a flattened sieve, securely attached to the wall by four screws. Not doctored like the one in the rec area, which had been painted yellow with a smiley face on it. This one was just a plain Morris speaker. So why had Page received the message in the galley, when the rec area had heard nothing? The dinosaurs might have drowned out Morris, possibly, but the film's volume was set quite low... it didn't seem likely, somehow.

Of course, Morris didn't always relay all messages to all areas of the ship. It didn't make sense to have routine status alerts about the propulsion system transmitted to the exercise area, for example, when there was always someone on duty elsewhere to deal with such things. No need to interrupt Nicola Haven's physical activity research without good reason. But general messages, and anything related to the ship's safety, were supposed to be broadcast in all areas.

And if Morris's warning didn't fit the description of being a safety message, Page wasn't sure what would.

In the command room, Page found Jacob Rhodes alone. "Are you busy, boss? Can I have a word?"

Rhodes turned away from the bank of consoles and controls, to

face him. "Sure, Henry. What's up?"

"It's about that last Morris message."

Rhodes looked at him. "You'll have to be a bit more specific than that, I'm afraid. Which message do you mean?"

Page was taken aback. Surely an announcement that the Orbital was being manipulated would be more memorable than that? "The one a couple of minutes ago, about how the ship is in some sort of danger."

"Danger? There hasn't been a message about danger."

"But there has. I heard it. In the galley."

A frown wrinkled Rhodes's forehead. "Tell me what the message said."

"It was the male Morris, and he said that the ship is not safe, we are being manipulated, and we're to check for things that shouldn't be here."

Rhodes's frown deepened. "And you're sure you heard this? You weren't asleep, or dreaming?"

"Of course I wasn't asleep! I was in the galley drinking hot chocolate, and Morris said... well, just what I've already told you. The ship is in danger. It sounds as though we've been infiltrated in some way. I don't know who by, or why or anything, but that's what Morris said, and I definitely think we need to act on it."

"And who else heard the message with you?"

Page shrugged his shoulders. "I was on my own in the galley. The message wasn't relayed to the rec area, so Michael didn't hear it, but I don't know about other parts of the ship."

"Wait here," said Rhodes, and he squeezed his way through the narrow room and floated out the door.

As soon as he left the room, Page turned to the computer monitors and scanned them urgently, looking for signs of anything out of the ordinary. Everything looked just as he would expect. Good, even. He strapped himself into a chair in front of the main console and typed a few commands at the keyboard. The screen filled with status messages, and he scrolled through them. Still nothing. No record of anything untoward, nor of any bizarre Morris message.

Rhodes came back into the command room. "Look here, Henry, you checked with Michael, I've asked Nicola, and nobody caught this alert but you."

Page unstrapped himself again and stood up. "But I *heard* it, Jacob. As clearly as I hear you now. What does it mean?" Then he thought of another alternative. "Or is it a wind-up? Is

someone playing games with me? Because if they are, I'm not in the mood for it. Not after Pete...".

"Ah, Pete," Rhodes nodded sagely. "We're all upset about Pete. It was terrible. A tragedy. But we need to keep things together. We've got a mission to complete, and we have to carry on."

Rhodes put his arm awkwardly around Page's shoulder. "Look, Henry, you're young... How young are you, exactly?"

"I'm thirty-two." Page looked uncomfortable.

"Thirty-two. On your first mission. Away from the girlfriend and everything you know. Out here in a tin can for months and months to come, feeling a bit like some latter-day Major Tom."

"Nothing I haven't been trained for."

Rhodes frowned. "As I say, you're away from everything you know. And the loss of Dr Taylor is bound to have upset you. You haven't the experience to deal with things like this. Even I find it hard, and I've got thirteen years' advantage over you, and two stints in the International Space Station under my belt."

"What are you trying to say, Jacob?"

"You seem... overwrought. You're hearing things. Normally I'd tell you to have a chat with the doctor, but under the

circumstances, we'll need to take it up with Mission Control, and get some advice. I'll have a word with the CAPCOM and see what Ryan suggests. They'll probably get you to talk to Jim Bauer."

"I don't need a shrink."

"You need what I say you need. I'm the boss, remember?" Rhodes snapped.

"But Morris said ... "

Rhodes raised his voice, impatience getting the better of him. "Morris said nothing at all. Nobody heard it but you. You're hearing voices in your head, man! Going crazy!"

Page opened his mouth to defend himself, then thought better of it and closed it again. Rhodes continued to rail at him.

"Now, get a grip! There's no way to get you home again without abandoning the entire mission, which is costing more millions than anyone can count. We're already down to just four of us, and I can't afford to lose another man. I need you in full working order. Pull yourself together, and let's have no more of this nonsense about Morris sending you secret, doom-laden messages that don't make any sense and that no one else can hear!" Sitting in his office not far from the Mission Control room, Jim Bauer had been whiling away his lunch hour, reading. Remote observation of the Orbital crew was fascinating in the long run, but sitting in front of the observation screen could be searingly dull on an hour-by-hour basis, so a reading break was always welcome. Bauer had just reached the end of Edith Wharton's "The Hermit and the Wild Woman", and Gabriel García Márquez's "One Hundred Years of Solitude" was beckoning seductively. That was one good thing about a protracted research assignment like this. Plenty of time for reading and, with an e-reader stuffed with e-books, there would always be plenty to choose from even if he were to read for every non-working moment throughout the rest of his life.

Something caught his eye on the screen, and he switched off the e-reader, packed it away in his briefcase and put his reading glasses back into their case. He was a methodical man, and sometimes wondered if he was better suited to the enforced discipline of life aboard *Orbital* than his subjects were. In the beginning, the crew had clearly been entertained by allowing things to float in the air beside them, but the thrill had faded fast. Weeks into the mission, they had learned to put everything back where it belonged to prevent objects from wafting off. The spaceship environment was full of ugly but functional storage solutions — so many of them, in fact, that the crew found it hard to manoeuvre through what little space the ship afforded. Bauer liked things to have their proper place.

Isolation was his psychiatric specialism. Personally, on-duty or off-duty, he liked being alone with his thoughts, or reading something interesting, finding that it gave him the space he needed for his work. And he loved his work. Professionally, he was fascinated by the range of reactions to isolation. You could never predict which subject would respond as though the experience were spiritual or creative or distressing or... Well, there were plenty of possible reactions. He hadn't been sure that this mission was ideal for his research focus, since the spaceship members were not really on their own but were living on top of each other, in enforced proximity. It was just normal society that they were detached from, not human contact. But research funding is research funding; not something to be turned down lightly.

Raised voices from the spaceship drew his attention back to the surveillance footage. NASA had assigned him to this mission to

observe how long-term isolation and separation could affect human behaviour, and to advise Mission Control on any issues related to the crew's mental well-being, but eavesdropping was never a guilt-free experience.

And listening to Rhodes's raised voice, Bauer wondered if perhaps there might be interesting developments. He could see Rhodes with his arm around Page, obviously trying to... what? Comfort him? Cajole him?

"I don't need a shrink!" Well, they all say that, don't they? Turns out they're wrong, most of the time. If you let a good psychiatrist loose on you, you'd be amazed.

Rhodes getting angry... pulling away. Page looking indignant. Shouting at each other. Page hearing voices, apparently. Then, all of a sudden, the confrontation stopped and Page shot out of the command room.

Bauer walked over to the bookcase, pulled out a file, flicked through it until he found the section headed "Page, Henry (32)" then read with absorption, stopping briefly to retrieve and put on his glasses. With a thoughtful expression on his face, he closed the file and returned it to his shelf, then he took his lab book out of the desk drawer. Fisher Space Pen in hand, he sat down, and started writing up the incident:

"Witnessed confrontation between Commander Jacob Rhodes and Engineer Henry Page. Henry Page reportedly hearing threatening voices, which others conclude to be absent. It seems unusually early in the mission for any effects of social isolation to manifest themselves in such an extreme form, but it is possible that the recent demise of Dr Peter Taylor may have upset the delicate balance on board the spaceship. Reference to Page's psychological profile and medical history suggest him to be an unlikely candidate for psychiatric disorder. Further investigation required to assess mental state with regard to psychotic illness, depressive conditions and the psychological health of the subject. Urgent priority."

CHAPTER NINETEEN by Katy S. Adamson

The voice of Morris - female, soothing - *irritating* - came over the speaker.

"Please remember to wash your hands before leaving".

Nicola adjusted her hair irritably in front of the mirror. They were all highly trained professionals on this trip, for God's sake! They surely didn't need reminding of basic hygiene every two seconds - just because some moronic jobsworth back on earth wanted to tick every box on his Health and Safety brief!

And uh-oh, was that a kink appearing in her hair already? Bother! She'd have to spend even longer with the straighteners tomorrow morning! She damped it down into place. She'd got to look the part. Supercilious lot, this crew, thinking that none of THEM would crack under the pressure of so much time in space. Well, it was her job to look out for such cracks. And there were already some, she was sure. An increase in aggression for example, in Jacob Rhodes - he'd even snapped at *her* that morning - merely because she'd splashed a little of her coffee over his way.

For a moment she dwelt on the hurt - then resolutely determined to push it aside. After all, he had the most responsible job, so he was surely *bound* to snap over nothing occasionally - probably without even noticing his actions. He was *now* no doubt fully occupied with his morning's work, as would be all the others.

Although - she shook her hair as she left the mirror - what *Michael* was doing when he busied himself all day over his desktop's display, she surely had no idea. After all, none of them were ill, and with the auto-pilot he had no ship to command or maintain. Probably playing solitaire...

Unlike her, a true professional! She threw back her head. Now, what could she do this morning? What indeed... She sighed. But being cooped up on this space ship wasn't going to do *her* head in. Although - hopefully - there would be a few symptoms from the *others*, just to make her job feel worthwhile.

Oh, to be able to go for a long run back home around the city parks! Ah well, a few laps around the decks, and a prolonged session on an exercise bike - that would have to do.

She left the washrooms and jogged around the empty recreation area a few times - so much fun in zero gravity! Her spirits rose. She took a few extra high bounds. Whee! This was fun! Whee...

BOOM!

A huge shudder seemed to flow around her.

In an airless environment? What the hell was that?! And the walls? For a moment, there had seemed to be a ripple through them. Was there some sort of ship malfunction?

The boom seemed to have come from the main console module - the command centre of the ship! *What* was going on? She hurried into the module.

It was empty apart from Henry Page, who appeared to be systematically ripping panels from the walls, exposing what seemed to be a multitudinous scramble of circuitry and wirework, into which he was feverishly peering and prodding, producing occasional little sparks and hisses. Well, that would explain the strange judders! Was there something wrong? Because - what the hell was he doing!

"Henry?" she said.

He looked over his shoulder at her, but his fingers didn't stop pulling at the wires. A lump of something dislodged and landed at her feet. It seemed to have eyes, a blur of feet, a tail that slithered back and forth on the floor – a mouse? Or worse - a rat! Inside the space-ship! Involuntarily she squealed, shut her eyes and drew herself back.

"What is it?" cried Henry, stopping what he was doing.

"I thought I saw a mouse run out of the wall. Can there be such things here?"

She opened her eyes. Henry was up on his feet and right in front of her.

"No, no, of course not. It's not mice. Don't look though, they will drive you crazy!".

Nicola stood still, and felt a chill go through her. What did he mean?

"There is something wrong with the ship." Henry continued. "Morris told me. I'm trying to find out what it is. But it's playing with my mind, to try and stop me."

Nicola stared at him. There was sweat on his forehead. He

sounded crazy himself. These engineers!

She looked down at the floor. A clump of electronics with a trailing wire lay by her feet. Where she had thought the mouse was!

"It was just this!" She drew in her breath, and forced back her professional air. Fancy loosing it in front on Henry!

"That's my mouse" she laughed. And then stopped.

Henry wasn't laughing. He wasn't even looking at it. Or her. He had turned away, back to the wall, back to wiring, starting to remove yet another panel. Faster and faster his hands seemed to work, as if Nicola was not there and nothing and nobody else in the world mattered to him.

Well!

Okay, maybe she'd been a bit foolish about the mouse. But all the same - what appalling manners!

He pulled at some more wires.

BOOM!

Once again something seemed to shudder, and then ripple around the walls and around her. Not a pleasant feeling.

Nicola shivered.

"What are you doing, Henry?" she asked. "Please be careful you're making some strange things happen. I don't like it."

For a moment he didn't seem to hear, and then he flung himself back round to her, temper flying out of him in all directions.

"I'm looking for something dangerous hidden in this ship. Morris told me to do so. Leave me to do my job, and you go and do yours. Or rather - go run around the ship and keep fit. Anything! Just keep out of my way. I'm doing this for you - for all of us! Don't let me waste time having to talk to you. Now go!"

He turned back to his panel destruction. Nicola stayed put. She felt angry too. Okay, so she *would* do her job. Because this was crazy, irrational behaviour if she had ever seen it!

Or at least - it could be... Not likely of course ... after all he was as he said, just doing his job. But: she needed to be seen to do hers, and if he didn't like it, serve him right!

"What did you mean, it's playing with your mind, trying to stop you."

Henry didn't answer.

"Well, what did you mean?"

He swung round again, "Go, go! This could be a matter of life and death!"

More sweat was pouring down his face. Nicola felt alarmed. This was surely not the behaviour of a rational man!

Her own anger disappeared, Poor Henry! He was suffering from space sickness - and putting all their lives at risk, destroying the ship! Or at least starting to pull it apart! She felt the tingle of alarm all over her,but her professionalism returned. She must try and calm Henry, and fetch help.

"I understand." she said. "Why don't you just sit down look, over here, and we can talk about it."

Henry took no notice. He didn't seem to hear her.

"Oh God, Emily, Emily..." he was muttering.

Nicola sighed. That bloody woman! Couldn't he forget her for one minute!

Another panel was torn from the wall. Nicola's alarm grew. If Henry really had flipped, at this rate there soon wouldn't be much left of the panelling. Were the others suitably qualified to repair it? She had better get help quick!

She ran to find the others. The first she found was Michael Gordon, busy at a desk. He looked up in surprise at her breathless entrance.

"What the heck?" he asked, leaning towards her, his body

obscuring his screen.

"It's Page - he's busy tearing the panels off the wall, trying to repair something that isn't there! I think he's flipped!"

Michael clicked a few buttons on his keyboard and leaned back. His monitor was displaying the ship's star maps. He leaned forward again to highlight a few areas, looked at them thoughtfully a moment, then tapped 'pause' on the screen and turned back to Nicola.

"Why, what did he say?"

"He said it was dangerous and kept telling me to go and let him get on with it. He was really bad-tempered."

Michael stretched out in his seat.

"It's a responsible job he's got. And you're right, it could be getting on top of him. After all, he must be tired - remember he was up late last night. But he's a professional. Why don't you just ignore his tantrums eh, and let him get on with it. After all, like he said, it's his job to keep the ship safe."

"And it's all of ours to keep the other passengers sane!" cried Nicola.

Michael smiled.

"I'll pray for you. And him, if you think it will help." His face was one big grin.

Nicola banged her hands down on his desk in frustration. At that moment there was another BOOM! The room seemed to shudder, and once again a ripple passed - slower this time through the walls. She stopped in fear, and watched the ripple until it vanished. Then she turned back to Michael.

"See what he's doing?" she cried.

His smile had gone.

"See what?" he said. "I didn't see anything. Only you behaving a bit oddly. You know, maybe all this space travel is affecting you a bit. And maybe you haven't had as much experience with bad-tempered engineer-types as the rest of us."

He got up and helped her into a comfy chair.

"Sit down, have a rest."

"I don't need a rest. I'm - I'm worried."

He sat beside her, and took her hand. His felt reassuring - kind, male ... strong. She looked up into his eyes and saw impatience and anxiety there.

"Are you okay? What do you want me to do?" he asked.

Not so strong. He wanted her to pull herself together. And so

she would! She leapt to her feet.

"I'll see you around, Michael."

She ran back to the command module. Henry had gone. Panels and broken wires lay all over the floor. Her unease came back in full force. Where the hell was he? Where the heck were the others? Eating?

She ran into the galley. It was empty - apart from Henry. And the paneling strewn over the floor. Some of it broken - he was tearing it away like a man possessed.

"For goodness sake Henry, what are you doing?"

There was no answer from Henry; no break in his activity. Nicola pressed her call button to Rhodes:

"Help required in the galley! Help required in the galley!"

In a few moments Rhodes was at the door.

His eyes took in Henry's activities and his whole body spewed thunder.

"Page, stop this at once! What's going on here?"

Henry put his head in his hands.

"I've already told you. Morris told me the ship is dangerous. There are things inside here that shouldn't be - I'm looking for them. I've got to look for them. It may save our lives!" Rhodes strode forward and grabbed him by the shoulders. "And I'm instructing you to stop this nonsense and to repair the damage you have caused! AT ONCE! YOU are the only one risking our lives!"

He turned to Nicola. "You were quite right to call me."

She looked up gratefully - and caught Henry staring her straight in the eye. The anger and frustration in his face made her flush - he looked as if he hated her - how unfair could life be!

She looked away from him, as pointedly as she could at all the mess and destruction around them that he had created. There was a few moments silence then she heard Henry say, "I can't stop - it is for all of us, for all of you!". Out of the corner of her eye, she saw him spring back to the walls and recommence his frenzied searching. Against the orders of his superior. Surely the act of a crazed man!

Rhodes was on his intercom in an instance:

"Michael, get to the galley, Henry's destroying the place!"

He motioned to Nicola to leave. She stood, staring at Henry.

"Out! Out!" shouted Rhodes.

Nicola paused as she felt her flush intensify, and then ran out the room. Damn the lot of them! She went back to the medical module to find Michael.

"Henry really has flipped! You'd better get ready."

This time he got up instantly - probably he had heard Rhodes on the intercom.

She watched as Rhodes and Michael manhandled a struggling, cursing, kicking Henry Page to the bunks, and listened as they padlocked him in. Then Michael reappeared. He nodded curtly at Nicola.

"A classic case of space sickness. You'd better get in there and medicate him when he quietens down."

Rhodes came out and spoke to Michael.

"We'd better get this ship back in shape. See what damage he's done."

Then, just as he was walking away, he turned back to Nicola.

"You all right, Haven?"

"Fine Sir, thank-you," whispered Nicola.

And suddenly she did feel better. What mattered the damaged ship, Andi, Michael, weak-minded Henry, Emily - poor Emily, poor, poor Emily - or anything else at all.

Because - even while on command in the midst of a *crisis* - Jacob Rhodes had remembered *her* and thought to ask how she was!

CHAPTER TWENTY by Montrée Whiles

Emily giggled a bit as the rims of their champagne glasses clinked together. Her blond hair fell forward over her shoulders. Her her slate-grey eyes reflected the flickering candles and colored lights from the holiday trimmings. Downing the bubbly, golden liquid, flushed prettily. She sat her glass down then leaned forward in request for his lips to meet hers..

The sound of footsteps grew increasingly more loud. Henry jolted awake and rolled over on his side.

"Who's out there?" He called.

"Nobody but us chickens," was the response. Michael sniggered as he and another crew member passed his door.

For the umpteenth time since being confined under lock and key to his quarters, Henry examined every inch of his room: the floors, the walls, the ceiling and the corners and joint of the floor and walls. There was no escape.

"I've just got to find a way to complete the task Morris has given me." He whispered to himself.

After downing an energy bar and a nutrient drink, he returned to his bunk to contemplate his navel. Well, his situation actually.

"I just know those things are hidden on the ship somewhere. I'll have to try harder to get out of here." He stood up and walked quietly to the door. Putting his ear to the door, he listened for voices in the hallway.

He heard the laughter of what sounded like the voices of Michael and Nicola further down the hall, but the sound didn't get any louder and soon faded altogether. He returned to his bunk and punched his pillow before settling on his back. He recited in his mind the things Morris had told him to look for. Then he heard the voice again as though it were right next to him.

"Henry. What are you doing?" An androgynous voice asked him from the nowhere and everywhere.

"Morris? Is that you? You sound different somehow."

"Its me, Henry. Why haven't you completed your mission?"

"Jacob is trying to take over the ship and has turned everyone against me. They think I'm nuts. But, I know I'm not."

"I know you're not either. You're right. Jacob is the enemy."

Henry was just about to respond when he heard footsteps coming quickly down the hall. They paused at his door. The digi-tones of the cipher lock sounded then stopped when more footsteps were heard to be drawing nearer. The sound of boots beating a quick retreat receded down the hallway.

'Damn! Only four taps. Two more to go, and I may have been out of here." He turned again towards his bunk but stopped when multiple voices coming down the hall were heard. They stopped at his door.

"Henry. We'll bring dinner rations in a couple of hours. Is there anything else you need?" Jacob's voice boomed through the door.

"I need you to let me out of here. I know your plans. You're the enemy. Morris agrees with me. We know you plan to take over the program."

"Henry, calm yourself. I've seen this before. Some people don't adapt to anti-grav well. We have to keep you confined to prevent harm to yourself and the other crew members. Be glad I haven't restrained you in your bunk."

"Thats what you want everyone to believe. But, I know better."

"I've downloaded a few current issues of my favorite mags, I'll zap them to your Nook eConsole. Found a really good novel as well. Try to keep your mind occupied. Pete is working up a cocktail to help you get through this. I insist you take it when he brings it by. That's an order."

The footsteps continued down the hallway. Things were quiet. Time passed unaccountably. Henry dozed again in his bunk.

"I'm going to Dover tomorrow. Will you go with me?" Henry asked as he turned toward Emily and held one each of her hands in his massive ones. His green eyes were beds of moss as they looked into hers. She held his eyes with her own.

"I'll go anywhere with you. What will we do there?"

"Oh, I dunno. See the castle, overlook the sea. I kinda fancy the Roman Painted House. What do you want to do?"

She opened her mouth in reply just as Henry was awakened by the sound of his eConsole blipping. He rose slowly from the bed, not bothering to put on his boots. The EC was flashing as he walked over to the desk. Jacob had been true to his word and sent him the promised reading material.

'Damn skippy of him."

He carried the EC back over to his bunk and propped himself up on the pillow. He was mid way through the second magazine when he heard the digi-tones at the door. He got up quietly after grabbing a boot with one hand. Standing just behind the door, the boot poised over his head to strike, the tones stopped after the fifth one sounded. Voices drifted down the hall. Footsteps moved away from the door.

"I'll meet you in the dining area in about forty-five minutes. I have to complete the upgrades to the calisthenics circuit. Shouldn't take long. Need to go by my quarters before I meet you." Nicola called to someone down the hall.

"Okay. I'll be there. I'm almost done with that cocktail for Henry. He's gonna like what I've come up with." Pete replied.

"Nicola. Is that you?" Henry called to her as her footsteps neared his door.

"Henry? I can't stop to talk. I have things to do."

"Please. It won't take long."

"Not now, I'll stop for a moment on my way back to my quarters. You know, I can't let you out though, right? Only Jacob has the combination."

Her steps hurried down the hall. He sat on his bunk, his head in his hands between his knees. Morris spoke up again.

"When she comes back, you have to get her to let you out. You know she's a soft touch." The genderless voice droned.

"I know, Morris. But Jacob has them in his control."

"You have to break that control."

"I know, I know. If Nicola won't let me out, I'll take Pete out when he brings my cocktail." He lounged in his bunk. His thoughts drifted once again as he succumbed to sleep.

'I'm glad we came up to Newquay this weekend. You've been so busy working with that space program, I've rarely see you." Emily turned to look out over the sea. 'I so love Cornwall."

"I'm glad you came. It won't always be like this you know. Will you wait for me until after the mission ends? It'll be almost a year and a half before I return."

"Of course I'll wait for you, Henry. Who else would I want to be with?" She stepped into his embrace then stood on toe tip and whispered into his ear. "Henry...."

"Henry." Nicola's warm, buttered-rum voice called to him

from the hallway.

"Yes. I'm coming."

"How are you doing in there?"

"What do you expect? It's not a victory celebration in here."

"I know. But, try to understand Jacob's position. He has to think about all of the crew."

"That's what he wants you to believe. Don't you see? He's the enemy. He's working for the other side."

"You mustn't think along those lines, Henry. If you let those thoughts take hold, you'll go off the deep end."

"You already think that I have, don't you?"

"Just going by my observations and what I've been told, yes. It's the tests that will determine what's going on with you."

"Then get me out of here. Let me take the frickin' test. You know me. We're not strangers to each other. Remember that time me and Stan got you so pissed you were sick for days after? Remember? I was there the next day to help you out."

"I remember, but this is different. It's not friendship that I'd be proving if I let you out. The lives of every crew member are at risk. You were trying to take the whole god-damned ship apart! Are you crazy?" "Morris told me to. Morris knows what's really happening around here."

"See, Henry. That kind of talk isn't helping the situation. Do yourself a favor. When Pete brings by your cocktail. Take it all. Don't try anything. Everything you do will make it worse if you don't cooperate."

"I see Jacob got to you too." The sound of his footsteps returning to his bunk was heard.

"Bye, Henry, I have to go." Nicola moved quickly down the hallway.

As Henry lay in his bunk, he heard Nicola's footsteps as she walked away. Just as he was drifting back to sleep, he heard Morris' voice calling him.

CHAPTER TWENTY-ONE by Matt Tobin

Ryan Jarvis was sitting in Mission Control, watching live camera feeds of colleagues bouncing around in an oversized tuna can in the middle of space, and he was worried.

A lot of things made him uneasy about this mission. That *he* should have been the one inside the tuna can, taking his place in history and fulfilling a lifelong dream in the process, was one. That his replacement was accused of losing his marbles and strapped to his bunk, rendered equally as helpless as Jarvis himself, was another.

Jarvis could sense there was something more going on, something that made him uneasy. He checked over his shoulder: the light to Jim Bauer's office was still on. He was still there, as always, sitting meekly in his office, working all night and day or at least pretending to. Was there really that much work for the old greying man to do? This mission was going to last eighteen months. What could possibly keep him in the office this late? It could hardly be considered a long-term effect of isolation if it wasn't still there to study tomorrow.

No, there was something about Bauer, the grey hair, the glasses, that measured softly spoken voice delivering his meek softly spoken words, as if everything was carefully designed to make him bland and uninteresting, unnoticed in the background. And yet here he was, long after he had any right to be here, watching over them all.

For all the science geeks and the sense of wonder and the great unknown that NASA presents to the outside world, it was still a large government bureaucracy delivering the kind of fiercely contested internal politics that a large government bureaucracy promises. And a man like Bauer wouldn't have made it as far as he had if he was truly content to work within the machine. The hardest working part of any machine - the axel of the car, the gears of a clock, the rivets that kept a vacuum-sealed space shuttle from becoming a tuna can with its lid peeled back - are hardly the parts that usually get attention. Hard work gets you a pat on the back and a gold watch after twenty-five years, but it doesn't get you an office overlooking Mission Control.

There was certainly more to Bauer than the man himself implied. And there was more to this mission than the mission implied also. Someone, somewhere, was pulling some unlikely levers and pushing some unlikely buttons.

In this era of international co-operation, when the population of the World could watch a rover land on Mars and cheer along with all of the youthful, fist-pumping engineering nerds with their dungeons and dragons beards and almost half with Asian faces - in an era like that, why was everyone working on *this* mission white?

Everyone on this mission, from the crew on the Orbital to the old man watching over his shoulder, could fit the same description: white, caucasian, short brown hair unless it was already turning grey, five-foot-eleven give an inch or two either way. Was it a lack of imagination on behalf of the selection committee, or was there something more sinister going on with this too?

Jarvis dragged his mind back onto the job, back to the live camera stream. Most of the crew were in the bunks - all except Haven, who was doing a double shift in the exercise room. *Just*

listen to yourself. Listen to all of the paranoia and conspiracy theories. Jarvis knew it was all ridiculous. The crew weren't being told everything, sure, but that doesn't mean he wasn't. This kind of stream of consciousness bullshit wasn't who he was. He was an engineer, an atheist. If he couldn't observe it, couldn't measure it, couldn't feel it, then he didn't believe it. But he hadn't felt himself lately. There was something about the mission, about what had happened with Henry Page up in space and his guilt about it down here.

It wasn't so much that he didn't *feel himself*, but that *how it felt to be himself* kept changing, like each chapter in his life was being authored by a different person.

Of course, Jarvis knew exactly where to place the blame. He was meant to be on this mission, after all. He had done the training, spent the necessary hours on the ship, interacted with *that computer*, with *that thing*. They should have known better than to give the damned thing a name.

They had all seen *A Space Odyssey*, they had all read *iRobot*. That had been part of the joke, of course. They gave it a name, gave it those voices, and they painted that creepy smiling face. That was enough right there to get your neck hairs to salute. Then they talked one of the engineers into giving them access to its

programming. The look on Rhodes' face the first time the computer said *I'm sorry Jacob, I cannot do that* in the middle of a month-long isolation training exercise -- they all took turns after that, programming existential jokes into its daily routine.

Just because I'm not self-aware doesn't mean I'm not out to get you. System reboot complete. Welcome to SkyNet.

With all of that Science Fiction buried in your subconscious, it only took a few lonely days in a capsule with nothing but Morris to keep you company before you started to see it *as* company. It wasn't long before you couldn't work out if you were missing your wife, or missing your mind.

But then Jarvis broke his arm, Page was brought in to replace him and the system was reverted to normal and blasted into space, or so everyone thought. Only now Henry Page was tied to his bunk bed because he thought Morris had morphed from a glorified emergency siren into an omniscient artificial life form delivering warnings of their mutually bleak future.

And if you'd believe that, you'd believe anything.

For starters, everyone knows that when computers come alive they will either destroy humanity, or analyse the circular logic of their own sentient existence until a stack overflow causes a

system-wide crash, whichever comes first. But more importantly, for every practical joke they played, no matter how macabre and sinister it had seemed at the time, it was still just a joke, they were still in control.

And yet now Jarvis had to check over his shoulder too, checking to see if Bauer was still watching, waiting until he was gone. There was something troubling about this mission long before he caused Page's current predicament.

Just because I'm not self-aware doesn't mean I'm not out to get you.

Just because it's not self-aware doesn't mean it's not out to save you, either. Come on, guys, think... if they could all script Morris's dialog before, why couldn't they make the connection that someone could be doing it now? If Page wasn't hearing voices, if he did genuinely receive that message, whatever its source, there was nothing insane about pulling off a few access panels to calm his suspicions.

What is insane is floating around a tuna can in space, where a single screw out of place could be the difference between life and death for the entire crew, and *not* checking it out.

But Jarvis wasn't up there to explain that logic, he was down here trying to find a way to help them understand without giving himself away. This was NASA after all: everything was recorded, they would notice the transmissions soon enough. The best he could hope was that they couldn't immediately trace it to him when they did. He was prepared for the consequences when the time came, but he wasn't yet prepared to be dragged off this mission with the crew still stuck up there.

He waited another half hour, checking over his shoulder occasionally until he saw Bauer's office light go out. Then he innocently made his way to fetch another coffee.

It just so happened that his fingers tapped a few keys as he passed another workstation. It was mere coincidence that Morris would speak again.

Since they took the decision to tie Page down, Nicola was spending most of her spare minutes in the exercise room. It was the place on the ship where she felt most at home: away from the crew, away from Page's pleading eyes - much like running marathons, just her and the road. Only here it wasn't a road, but anything NASA could find that could provide resistance in zero-gravity. The exercises from the old days of the International Space Station weren't going to be enough. The truth was, they

didn't really know what would be. The main reason - perhaps the only reason - Nicola was here was to try to find that out.

So she swapped running for cycling and a view of the horizon with a view of the whole Earth, but there she still was, watching sweat beads float away from her body as she metaphorically pounded the pavement.

She finished her session and began a warm down routine when Morris spoke to her:

Haven, you need you to free Page. You need to trust me. This ship needs an engineer, and it needs an engineer who is comfortable with every system on-board. If that means he has to rip everything apart, let him. You know he can put it back together. Trust me. What he is looking for, you want him to find.

Morris crackled with a short burst of white noise and then cut out. The silence grew until it filled the room. Haven continued her warm down exercises. She found that easier than thinking. If she warmed down for long enough, she may never have to think again. Before long, she wouldn't be sure that she had heard anything at all.

That was how it felt to her up here - everything floated: people, objects, thoughts that couldn't be processed before they drifted

away, doubts that couldn't be contained until they filled an entire room.

She had thought she was prepared for it, but she now knew she never was. She had expected space to make her feel insignificant. That seemed like the obvious reaction when staring down at a massively tiny Earth hovering against a galaxy-dotted backdrop.

So she had prepared herself for awe and helplessness and irrelevance.

But if she was an insignificant ant, space was a microscope concentrating focus on every single thought and doubt and action, and Haven hated the enormity of every passing moment.

So she exercised and forced the others to exercise, and measured their muscle strength and bone density to work out if their bones would be crushed to powder when they stood under Earth's atmosphere. Anything to keep from looking out the window, to keep from thinking.

If she was there as a Science Officer, she was also there as a psychologist's lab rat.

And now she had to fight to grab hold of at least a fragment of what Morris said before it too floated away. You need to free Page. The ship needs an engineer. You need to trust me. That was all she had left:

Free Page. Trust me.

But Haven didn't know what to believe anymore. Page listened to Morris and started tearing the ship apart. If she were to listen to that same voice now, wouldn't that make her twice as insane? She had no faith in her own judgement anymore, and she didn't like the way the others were so quick to strap Page down. She had to trust someone: might as well be a lifeless machine and a madman.

Of course, deciding to free Page, and actually doing it, were two separate problems. To start, there was a chain of command she had to follow. Rhodes and Gordon were already in their bunks. She could hardly walk in and start loosening Page's restraints without them noticing. They were her commanding officers, and strong enough to tie her down as well if they felt so inclined. She wasn't even sure she could out-run them here in space the way she did during training back on Earth.

Unfortunately, it wasn't just that they were superior officers, but that the Science Officer had no actual authority or duties at all. She could talk with the doctor, and between them they could surely come up with a reason to get him unstrapped from his bunk before his muscles atrophied completely - but that would only get

him supervised release into the exercise room before being restrained in his bunk again.

If he was going to resume his search - and there was no point in Haven releasing him if he wasn't - then he would need access to the command module.

She knew there was no hope convincing Rhodes and Gordon to believe Page. Once you start looking for evidence that someone living in near-isolation in zero-gravity is insane, it isn't hard to find. To one degree or another, they were all heading that way. But Page was the only one hearing voices, and the only one pulling the ship apart as a result.

The ship needs an engineer. Only problem was, they were functioning fine right now without one. Everything just seemed to work, and even if it didn't, there were manuals for every system and subsystem, and the whole crew was trained in the engineering procedures before the mission. The pilot had dealt with the few minor incidents that had come up before the rest of the crew even heard about them.

No, she needed a different approach. Rhodes needed a reason to *need* Page again - or to put it more precisely, she needed to give him one.

By the time Morris alerted the crew that there was a problem, Haven had already slipped back into the exercise room. The ship-wide speaker system let out a shrill alarm, and then Morris's male voice kicked in:

Warning. Malfunction in outer airlock door. Warning. Malfunction in outer airlock door. Warning. Malfunction in outer airlock door.

Haven was last to arrive in the main recreation area, having delayed and grabbed a towel for effect.

"What's going on," she said as she arrived.

Warning. Malfunction in outer airlock door. Warning. Malfunction in outer airlock door.

"What it sounds like," Rhodes said. "Would someone shut that damned thing off?"

The pilot crossed to a panel under the Morris speaker and punched in a sequence to silence the alarm. It was immediately replaced by a new message, this time from the female voice.

A malfunction has been detected in the outer airlock door. Remain calm, and follow the procedure checklist in the engineering manual. "Yes, yes, we are calm," said Gordon as he punched in another sequence to silence the second message. "Haven, get the engineering manuals from the command module."

"Quickly," Rhodes added, "before we start losing pressure."

Haven was pleased to see Rhodes' urgency - that was why she chose the airlock over less-critical systems. Whether it's the airlock door or a collision with space debris, there is nothing an astronaut fears more than venting atmosphere into space. Of course, she wasn't stupid enough to risk that: she had tampered with the airlock sensors rather than the airlock itself. She hurried to fetch the manuals just the same.

She returned with the large binder, containing removable manuals for each of the subsystems. Gordon flicked through the contents.

"Airlock, airlock," he said. "Why don't we keep this damn thing sorted alphabetically?"

"We do," Rhodes said.

"Well, it's not here under 'A'." He searched through to the end of the binder. "It's not here at all."

"Give me that," Rhodes said and grabbed the binder off Gordon, repeating the search.

"Were there any loose manuals next to this?" Gordon said.

"None that I could see," Haven said. "But I can go back and look again."

As she hurried back into the command module, the warning messages began a new loop. First the male voice, then the calming female alternative.

Warning. Malfunction in outer airlock door. Warning. Malfunction in outer airlock door.

A malfunction has been detected in the outer airlock door. Remain calm, and follow the procedure checklist in the engineering manual.

Haven waited long enough to make a show of searching for the missing manual.

"I can't find anything in here," she shouted back to the other room. "Are you sure it isn't in the binder?"

"It's not here," Rhodes said. "Where else could it be? Who was the last person to see it?"

"I performed a system diagnostic on the airlock yesterday, but I put it back in the binder," Gordon said.

He paused, struggling to remember the specific moment he returned the manual.

"I always put it back in the binder," he finished, less assuredly.

Warning. Malfunction in outer airlock door. Warning. Malfunction in outer airlock door.

"What's going on out there?" shouted Page over the noise. "If we're about to decompress, you can't leave me strapped up back here."

"If we can't find the manual," Haven said, "we have to let him fix it."

"Without the manual no one can fix it," Gordon said.

"He told me he knows this ship backwards, doesn't need the manual."

"He's also bat-shit crazy," said Rhodes. "Let's just find the manual. Gordon, think. If you didn't put it back in the binder, where would it be."

"I always put it in the binder, but if I didn't..."

Gordon looked across at the door to the airlock.

Haven was already there, staring through the portal window at the manual she had dropped in there minutes earlier.

"Is that it?" she said.

She put her hand on the lever as if preparing to open the door.

"Don't open that," Gordon said. "We're not losing air right

now, but we can't risk it if the airlock is broken."

"We need other options," Rhodes said. "One of us could suit up?"

Warning. Malfunction in outer airlock door. Warning. Malfunction in outer airlock door.

The doctor, who had remained silent throughout, finally spoke.

"We should let Page fix it. He may be bat-shit crazy, as you put

it, but we'd have to be even crazier to do this any other way."

"Alright, do it," Rhodes said.

Haven was the first to reach Page.

"I rigged the sensor," she whispered before the others could arrive, "but make a show of fixing the problem."

"Here, give me a hand with the restraints," Haven called back to Rhodes.

"When I fix this, will you let me stay out?" Page said.

"Fix it first," Rhodes said, "then we'll see. Or are you planning on holding us all to ransom?"

When he was free from the restraints, Page headed into the command module.

"The airlock's this way," Rhodes said.

"But the sensors are this way. I need to check them first before we start playing with the door. I do know what I am doing."

A malfunction has been detected in the outer airlock door. Remain calm, and follow the procedure checklist in the engineering manual.

"Yes, yes, darling," Page said. "Remain calm. Exit in an orderly manner. Please mind the gap as you exit the spaceship."

Page worked his way through sensor readings and other diagnostics.

"Pressure is normal, temperature normal," he said. "I think it's just the sensor, probably a short or something."

He pulled back a panel and began fiddling with the wiring. Morris, in both its male and female forms, fell silent.

"That's got it," he said. "But it shouldn't have happened, not like this. Whatever caused this to short could do a whole lot more damage to something much more critical next time. Do you want me to check the rest of the wiring, commander? I'd have to open up some more panels."

"Are you just making up a reason to keep you out of restraints?"

"As soon as I am done, you can tie me back up."

Rhodes shook his head.

"I can't believe I'm doing this," he said. "Just do it. But Haven, keep an eye on him."

By the time Rhodes and Gordon returned to the bunk area, Page had pulled another three panels off the wall. Either someone was playing a cruel trick, or he was insane, or he was going to find something surprising under one such panel.

CHAPTER TWENTY-TWO by Michael Bywater

Thing was, thought Bauer, you needn't come up with an explanation. Ever. For anything. The numbskulls — the sleds and dorks and no-hopers and the vast majority on the edge of one personality disorder or another — would come up with their own.

So they were usually peculiar, deluded, downright improbable. So what? The real explanations, the real stuff-behind-the-stuff, was almost invariably worse, more grotesque, less credible. The only difference was that it was true. Tinfoil hats, ghost planes, 3D holograms, giant conspiracies and black helicopters: all this, not to mention God, organic food, workouts and Tantric sex, were small fry compared with what was really going on. And it was what was *really* going on that Jim Bauer dealt in.

True, psychology, trick-cycling, brain-doctoring — call it what you will — knew next to nothing about what *was* really going on.

But it knew something. And of that something, Jim knew more than most.

Thank God (whose only purpose was to exist as a shadow of something that you *could* thank, if thanks were needed) that things were generally in the hands of engineers. Not just guys with engineering degrees, not mechanical or chemical or production or aeronautical or software engineers, but politicians, financiers, investors, punters, the *whole damned market* that made up 99 per cent of contemporary life. They were all engineers. They saw the world in terms of cause and effect. Worse, they only recognised the effects they could see, and the causes they could tinker with. Those were all they questioned. Everything else was taken for granted, as if engineering were some self-contained axiomatic system, like numbers.

Like numbers — like any axiomatic system — there were things that engineering simply couldn't deal with. It could handle "why?" as long as that "why?" remained within the engineering mindset. Outside that mindset was a vacuum as dark, impenetrable and lethal as deep space.

And that was where Jim Bauer worked.

On the edge.

And here he was, on the edge of the edge.

Keep calm. You're surrounded by irrationalities. Things that don't make sense. Things that would turn your brain to something like a nightmare version of a reality show. To hell with "first things first". What counts is "next things next". Jarvis.

Bauer looked down through the one-way mirror of the viewing gallery. Jarvis was in his usual spot, front desk on the left, looking at what he was always looking at. Space.

Not the space in which *Orbital* currently lay suspended. Not at the images of space outside *Orbital*, delivered after 0.2 seconds only slightly longer than the lag between reality and the time it took the human organism to process it, and the source of one of the great mysteries of psychology: how we lived in the past yet experienced it, and acted in it, as though it were the present.

No. Jarvis was looking into inner space. A slender near-void, thought Bauer, occupied by the primary-school concerns of engineering (*if this, then that*) and, mostly, by images of Jarvis's wife. A negligible woman. Bauer had met her once. Thirty seconds had been enough to convince him that she was of no conceivable interest. Merely a small gravitational force exercising its influence on an even smaller one, the slavishly-devoted Jarvis. "Have you met my wife?" he'd said, as though offering a glimpse of some spectacular unattainable paradise to Bauer. It had been at one of the ludicrous get-togethers organised by NASA with its foolish ideas of "team-building", as if teams were something you could make at will. Bauer knew better. Teams were an illusion. Temporary and superficial alliances, which coalesced around the charismatic, most ruthless strongest, most or most successfully-dissembling of individuals. Most members of most teams — those who prided themselves on being "team players", that highest good of American enterprise — were weak-willed souls who would have formed up obediently behind the first powerful character, whether it be Hitler or a self-styled prophet, to present himself.

And the Orbital team was no different.

Of course it wasn't.

Which was why Bauer was there. And why the people who had put him there had done so.

He knows something. No. He suspects something. What does he suspect?

Not the truth. The truth is beyond his imagination. So what, then? Most probably, he just suspects something but doesn't know what it is. So it must be nipped in the bud. And we know how to do that, Jim, don't we? So pick up the phone.

Bauer picked up the phone. He couldn't hear it ringing down below on the CapCom's desk. Bauer was sure that was how Jarvis thought of himself: like Snoopy on his doghouse roof: *Here's the World War I fighter ace*. Or in this case, *Here's the important CapCom*, *the only man allowed to communicate with the Orbital crew*. Jarvis wore his headset like a diadem. As the phone rang, he pushed it aside. *The CapCom pushed his headset aside with an characteristic gesture of command and control*. That's what Jarvis thought. Bauer *knew* it.

"CapCom. Pass your message."

Jesus H., thought Bauer. Everyone *knows* he's CapCom. This is a fucking *internal line*. And what's the "pass your message" shit? Couldn't the guy just say "hello" like a human being?

"Ryan. It's Jim. Jim Bauer."

A normal guy would have looked round and up at the viewing gallery. Not Ryan Jarvis. *The CapCom was focussed, alert at his station*. Jesus.

Bauer clicked off the live feed to Orbital. Communications between PsyMon and the crew were confidential. What if Psychological Monitoring — which meant, effectively, Bauer thought the crew were going whacko? It would never do for them to overhear. Typical NASA engineer-think, of course. As if the crew hadn't noticed the... little problems. Things going bang. The whack-job Papist medic squirting himself into deep space and instant, blood-boiling dissolution: either the mother of all SNAFUs, or some addle-headed Nearer My God To Thee stunt. Bauer knew which one he favoured.

"Uh, roger, Bauer. Go ahead."

"We need to talk."

"Affirmative that."

"We have" — might as well use the asshole's own language — "a slight, uh, situation in the LPU."

The Lagrange Point Unit. What fool thought *that* up? Why not take the first step to understanding, and call things by their actual names. Not TLAs. Not fancy euphemisms. Not the LPU. The *Orbiter*. Not SSS, Subjective Stress Symptomatology: *Going round the bend*, how about that? Mad, frightened, lonely, isolated, horny, seasick, bored, sick, *dead*. Things that happened to people. Things

that happened about 0.2 seconds before they realised it.

"Uh, roger, can we—"

"We can't talk about it on the phone."

"On the...?"

Jeez. "On the ICCS." Intra-control comms system. Jeez. "Meet me in Training Three, stat."

"Training three roger that. Out."

The little shitweasel put down his handset. Bauer shrugged on his friendly-shrink corduroy jacket, spritzed himself lightly with Tom Ford Tobacco Vanille (the stuff said warm, approachable, authoritative; it also said carefully-dosed pheromones, but nobody would notice that: it all went straight into the limbic system via the nose, and there was no arguing with that) and headed down to the Training Area.

Which meant he didn't notice Jarvis pick up the external line (cellphones didn't work in what was essentially the Faraday Cage of the ground control center) and call his negligible wife. Didn't hear them exchanging pointless but carefully-coded endearments. Didn't notice Jarvis fire up the virtual Linux OS on his laptop and type in a few lines of code in something as far from the machine's usual friendly multicoloured GUIs as the *Orbital* crew were from Earth.

Did notice Jarvis arrived a couple of minutes after him in the Training Area when he should have been there a couple of minutes before.

Didn't think anything of it.

"Been calling that pretty wife of yours, Ryan?"

"Telling her I'm heading home. Where are you heading, Bauer?"

There was an odd note in his voice as he reached up to the Training Captain's control panel and flicked out the voice and data recorders. Now they were entirely private. Sealed from Mission Control, and that meant just plain *sealed*.

"I'm fifty-five years old, Ryan. I haven't spoken to anyone in my family for years. I live alone. I work. That's why I'm the best in my field. Alone is my best friend."

"Isolation."

"Damn right. Live it. Work it. It's kind of like the Stockholm Syndrome, except there's just me. So where the fuck *would* I be heading".

Bauer gave his *damn* fine impression of a warm and friendly chuckle. But Jarvis wasn't buying.

"You know when I said 'Affirmative', Jim?"

"You always say 'Affirmative'. Why can't you just say 'Yes'? You know, like you were a *person* or something?"

"Because I'm the CapCom. Because I *practised* for this role. For years. My entire life has been leading up to this moment. I'm the go-between. I'm the one without whom. You know? You think I'm a poor fuck who broke his arm and that was the end of his dreams of space but you're wrong. I'm the one who broke his arm and became the *link*. I know the guys on the ground. I know the systems. I know the guys up there. I *was* the guys up there. One of the guys up there. You know what you don't understand, Doctor Psychiatrist? You know what passes you *right the fuck by?*"

"No, CapCom Jarvis. I'm fascinated. What passes me right the fuck by?"

"Teamwork. The idea of the team. Nothing ever in human history has been done unless it's been done by a team. And here I am. The final link in the chain on Planet Earth. And the first link in the chain out there at Lagrange Point. You know what I am?"

"Yes."

"No you do not. You do the *fuck* not. I am an intermediary. Where this mission is concerned, I stand between the heaven and earth. You think that's fanciful. You think I'm just some glorified grunt with a trick arm and a lousy headset. But *I am the priest*. Up there, down here, I am the one they hear and the one they trust. And you know what?"

"I'm longing to hear."

Don't say anything. Let him speak. The stress is getting to him. He's noticed something, he suspects something, his brain is flooding with adrenalin and cortisol and all those yummy neurochemicals and he's about to find out just what it is he suspects. Keep quiet. Smile. He'll find out, and he'll find out... aloud.

"They hear me and they trust me but *I don't trust you*. You think I believe these glitches with comms are just... what was the Brit word? "Gremlins"? This isn't *Dambusters* and they aren't gremlins. Everyone else thinks so. 'Oh, comms are always difficult, it's ionisation, it's solar activity, it's my Aunt Fanny.' I know better. I know what it is. And I know who it is."

Don't say anything. Just do it. Now. Now is the moment. Do it.

Jim Bauer takes a small atomizer from his pocket. Opens his mouth. Sprays. Once. Twice.

"Christ, Bauer, what is is with you? Your breath stink? Or what?

You think that damn metrosexual pussy cologne makes us like you, trust you, *believe* you? You think that hair product makes you look, I don't know, one of the boys instead of... what are you? Fifty-five? Sixty? You're an *old guy*, Bauer, and you're *fucking with my coms*. See? I said it. I'm the priest. I'm the intermediary, and you're *fucking with my coms*, which means you're fucking with *me* and you're fucking with the guys in the LPU and you're fucking with the *mission* and you're, this is the thing that really screws me over because I don't see how you can *do* this, you're the shrink, you're the one who *understands* but you know what? You're... what? What did you say? *What?* WHAT DID YOU SAY ABOUT MY WIFE?"

Here we go. We're in business.

"I said nothing about your wife."

But Ryan Jarvis hears: "Your wife's a whore. You want proof? Here."

Bauer shows him the aerosol. "You think that's breath-freshener? You think I'm carrying around Gold Spot?"

Jarvis hears Your wife likes me to taste good. You think she doesn't like that hint of mint when I go down on her?

"Big mistake, Jarvis. This is what we call a "dysmnemomorph". Engineering. Crossover: genome, meet neurotransmitter. It's kind of new. It's kind of secret."

Big fool, Jarvis. She's what we call a whore. It's nothing new. It's no secret.

"It gets inside your brain. You need to be in a state of high arousal for it to function, but we've a team working on that."

Everyone's been inside the bitch. She's permanently aroused, ready to go. Everyone's worked her. That's why we're a team.

"We don't know how it works but we know what it does. Hey, CapCom?"

Jarvis hears his title and for a moment his brain clears.

"I'm the fucking CapCom and don't mistake it. I'm the only one who talks to the guys. Except *you've been talking to them*. You've been seizing the channel. You talked Pete out of the airlock, talked that good man to his death. You've been using the backchannel, saying what you want them to hear so they'll do what you want them to do, and I'm going to make sure everybody—"

Another spray. I'm fine. The epsilon-blockers will keep me straight for another forty minutes and, hell, how long can this take? Five minutes? "Prove it. Do your best. Good luck.

Jarvis no longer knows what he's hearing. It's just horror, mouthed into the shape of words, words of betrayal, turning into every fear, turning into rugose glistening flesh beyond any nightmare. The dysmnemomorph is intercepting Bauer's words at the exact point — a few milliseconds in, shorter than the time it takes communications to get from *Orbiter* to Mission Control that they're transferred from pressure-waves on his eardrums to language in his brain. It consumes the words, digests them, *feeds* on them and grows in strength, then excretes what's left as a distorted, reeking poison, gravid insinuating earworms that turn every phrase into its most hateful opposite but one that nevertheless make some kind of sense. Just not the kind of sense you'd ever want to hear. Nor the sort of sense that, having heard, you'd be able to survive.

Then the dysmnemomorph begins to work on his vision, and, a few milliseconds later — *this stuff is FAST* — on his own thoughts, so that for an instant too short to measure but long enough to perceive, reality is infinitesimally real, before turning into nightmare again.

Jarvis runs. He crashes into the mock-up control panels, glancing at the calm instruments, poised in their simulation of

stable orbit, and sees only a mad dance of needles, ribbons and dials that make no sense. He feels the simulator dance and lurch on its six axes

Steady as a rock. Look at that poor bastard flail around.

and tips backwards under an inconceivable gravitational pull as he crashes through the Command Module hatchway and into the body of the

It's only a simulator

ship as the Orbiter thumps and spins and Bauer's voice is taunting him, telling him things only he can know, that he thought only he knew. When you're here, you know what? We take it in turns to bang her. Sometimes more than turns. Sometimes we get up a little posse, go round, make the bitch as airtight as that airlock, you know what I'm talking about, Jarvis? CapCom? CapCuckold?

The airlock. If he can get to the airlock. He has to get out.

"No good going for the airlock, buddy. No suit, okay?"

Jarvis hears Go go go. The airlock. You're suited up okay.

He's going for the airlock. Still kind of thinking. Kind of. For an engineer. If-this-then-that... it'll be the end of him. "You'll never get out that way, Jarvis."

Jarvis hears: *That's the way out of here*. Spins the lock. Pressure equalized? Check. Spins again. The hatch seal breaks with a thin *pf* like a jampot. Jarvis is in there now. Slams the hatch closed. Spins again. His arm is hurting like hell. The seal handle tightens firmly. *My fucking arm broke it broke I can't move my hand oh Jesus oh God my arm it came away right from the shoulder I'm holding my arm in my hand I'm the CapCom the CapCom*.

"Chrissake don't touch the red exhaust button, buddy," soothes Bauer.

Outside the viewport, the infinite indigo of space and above, a sliver of Moon.

It's the service corridor beyond that hatch, but you don't see that, buddy. Do you? Buddy? Huh?

Jarvis hears: "The red button. It's your only hope." He presses. Counts to three. The safety interlock clicks out and the timer, guarding against accidental presses, counts down. Then the sound begins.

It's a low whine, like an APU on idle, drawing the air out of the airlock. Manufacturing eight cubic metres of deep space between two hatches. It's like the wind between the worlds, the scream of all the dead, agony upon agony, the scream of bombs falling and horror falling, the scream of his wife when she *the whore the whore* when she—

And then there's another sound as his eyes enucleate and fall onto his cheeks, and his bowels rip free and his lungs shred and his heart bursts and then

He's gone. God curse him and all who sail over him.

"Good luck with the case, buddy," says Bauer into the viewport, now a viscid splash of red. He heads back to his room in the viewing gallery, smiling wisely.

CHAPTER TWENTY-THREE by Mark. Rothwell

Emily had entered the Mission Control room right on time for her shift. Although, as ever, she was wondering if Henry was missing her as much as she missed him, her step was light. She'd seen Henry on the monitors last night and although she couldn't talk to him directly, Ryan had assured her that he was fine, and that all was well with him. Ryan and Henry had much in common in their backgrounds, though she felt that in some way Ryan somehow lacked the total integrity that had attracted her to Henry, just as much as his green eyes and physicality and outgoing nature.

She had spent the evening with Grace and Loretta. She hadn't seen them for 6 years, and over pizzas and a bottle of red wine they'd caught up on all that had happened to them since, remembering all the highs and lows of their time together as trainee nurses. It had been a respite from her work and her

worrying about Henry.

"Hello everyone. Good morning!" Emily said breezily as she entered the Mission Control room. Immediately she sensed a tension. Her cheery greeting seemed like an intrusion into an atmosphere of gloom and despondency. A pause, then a muted response, almost inaudible: "morning" without the "good".

"What's happened?" Emily looked round. The room seemed as full as usual with people at their stations, but something was different. Jim Bauer was not in his usual place up on the gallery; where was he? She spotted him. He was sitting in the front at the station of the CAPCOM, Ryan Jarvis' station. What on earth was he doing at Ryan's station and where was Ryan?

"What's happened?" She repeated, "Where's Ryan?" More silence. "Please, where's Ryan? What's happened? Someone tell me, please!"

Jim Bauer thought he'd better deal with it. This girl was a rather emotional and was likely to go over the top when she heard. It had better come from him, as then he could try to head off any outburst from her and keep the situation under control. He took off his glasses and composed his features into the sympathetic

mask he had developed as a means to make his patients feel at ease during sessions. He got up from the CAPCOM's chair and came towards Emily.

"Emily, I'm sorry. We're all upset here. You see sometime during the night, Ryan Jarvis suffered an injury which means he won't be in."

"What do you mean 'suffered an injury? What sort of injury? What happened to him? How bad is it? How long's he going to be off?"

"Now calm down. We don't know what happened exactly, but he won't be coming back. I'm afraid he's dead."

"Dead? When? How? Where? And you just say 'he suffered an injury'!"

"I didn't want you to get too upset ..."

"Upset?" she almost screamed, "And you think 'suffered an injury' is not going to make me upset!"

Tom Carr, in his seat at the back of Mission Control, had had his head buried in his hands. Hearing the exchange, he raised his head, wiped his hand across his face in that way he had in situations which were getting out of his control. Clearly, Bauer was

not going to make things easy with Nurse Field. He got up from his chair and moved in his ponderous way towards Bauer and Field. He would have to defuse the situation.

Emily turned away from Bauer to face Tom Carr. Tom Carr was more trustworthy, more human.

"Nurse Field," Tom said gently, "We're all really sorry about Ryan. He was a good colleague."

"But what happened to him?"

"We're not really sure at the moment. I found him in the training facility this morning. He was already dead, probably had been for a little while, but I can't tell you what killed him. But I do know why he was in the training facility. You see, last night, Henry Page had uncovered a situation on the Orbital that he wasn't happy about. He couldn't identify exactly what it was, but something wasn't working in the way the training simulator had been, as if something was missing somewhere on the Orbital. We think Jarvis had gone into the training facility after his shift was over last night to try to work out a solution to the problem Page had outlined. We think his death must have been an accident."

"An accident? What sort of problem? Is Henry OK?"

"Henry is OK. I'm afraid I can't tell you about the problem.

Jarvis said Page was very unclear about what it was ... it was more of a gut-feeling than something that had come up on the instrumentation. He said the best thing was to see if the training module showed the same signs. If it did, we could reach a solution."

"Can I see Ryan's body? Can I try to see what it was that killed him?" Emily urged.

"No, you can't." Tom replied. "I've sealed off the training facility until investigations get under way. We are waiting for the police and the medical people to arrive. But the training facility is off-limits to everyone except those in NASA, and to most of them it's on a need-to-know basis only."

"So no-one with any medical knowledge has seen his body? And how long is it going to take for the authorities to get the necessary permissions to go in? How can ..."

"Now calm down, Field. Mr Bauer has seen the body, and he suggested that we should seal the facility immediately; and of course, we will be conducting our own investigation as to how the accident could have happened, as our engineers know the facility better than anyone."

"Mr Bauer ... your own investigation!"

Emily thought back to the evening before. Henry had been there on the monitors; he'd looked OK, though he had been running his hand over his hair, something he only did when something was really puzzling him. Had she missed something? Was there something she had failed to notice. She had been so happy just to see his face, and then Ryan had told her that all was well with Henry and the Orbital. After that she'd gone straight out with Grace and Loretta, and hadn't given the mission a second thought, even though they'd wanted to know everything about Henry.

But casting her mind's eye back, she realised that when Ryan had told her all was well he hadn't looked at her. Ryan normally tended to look straight at you when he was talking to you. Maybe he knew something was wrong with the spacecraft; maybe he had discovered that the mission was not what it purported to be. Please God tell me Henry is not in danger ...

Who, she thought, turning away from Tom Carr, would have any interest in diverting the purpose of the mission? Not Henry, of course. He wouldn't jeopardise the spacecraft he was in, or the mission he was part of, a mission he had worked so hard to be on

since getting into space had been his dream since childhood. So someone at Mission Control.

Ryan? But if so why would Ryan be dead? If he had realised that Henry was on the track of something Ryan had done? And, of course, he had wanted to be up there in Henry's place ... It didn't make sense. No, if Ryan was behind it, it would be Henry who was dead!

The bloke from Mission Operations Directorate? No, what would he or the Directorate itself gain out of diverting the mission or Ryan's death. Both of them would be bad public relations events, and the MOD was all about keeping the public happy.

Tom Carr, then? Emily looked at Tom Carr. This mission, working in space-flight, was everything to him. A quiet, introverted, controlled type who liked everything to run smoothly. His children grown up, his stable marriage, his golf ... he wasn't the person to risk all that he stood for by departing from the objectives of the mission, by killing Ryan.

Emily turned back to look at Jim Bauer.

Emily didn't really like Bauer; she didn't trust him. His greying hair seemed unnaturally thick, and his skin was too tanned and smooth. And when he removed his reading glasses, his eyes were ice-blue. It was those eyes which were so unsettling. Even when he smiled or laughed, which was rare enough anyway, his eyes remained hard, penetrating, but with no twinkle to them ever. His face now had that mask-like expression he often put on when talking to people, seeming sympathetic but giving nothing away. Yet his eyes were like gimlets boring into her, no friendliness there. Was there something more? He must be the one.

She turned her thoughts to all she knew of him, all her experience of him. He was a workaholic, trying to prove himself, trying to escape from his background and the family he shunned. Would he try to divert the purpose of this mission as an experiment for some other research of his own, something that would gain him greater renown. It fitted, it was the only thing she could think of that did.

As she looked at Bauer, at his mask-like face devoid of any emotion and his horrible eyes, all her worries about the safety of Henry came flooding back. He was going to be on the Orbital for a year and a half, a spaceship where not all was what it had seemed. Henry must have realised that and communicated his misgivings to Ryan. And Ryan would have found out what was wrong through his investigations in the training facility. She burst out, "It's you, isn't it? You know how Ryan died don't you and aren't telling; you're the one who wanted the facility sealed ... why? Ryan must have discovered what was wrong, what Henry was looking for. You're the only one who could have anything to gain by exposing the astronauts to an unknown risk to see how they reacted. It's you, isn't it? Only you could have wanted Ryan out of the way? Only you could see anything to gain by putting Henry in danger ..."

There was total silence in the Mission Control room. Tom Carr stood there looking non-plussed, repeatedly wiping his hand across his face. Everyone else was staring at Emily as if she were mad.

For a moment, Bauer's eyelids flickered, though he managed to maintain his expression. "Stop right there! This is total nonsense. You have no valid grounds to accuse me. You're just letting your emotions run riot." More forcefully, "Stop it. You're getting hysterical. I'm going to give you a sedative; you'll be all right when you've calmed down." He seized her arm roughly and she cried out in pain.

"No, no, no. I won't take anything from you. Let me go!" Emily wrenched her arm free. Tears poured down her face. "I know it's you," she screamed, and ran for the door.

CHAPTER TWENTY-FOUR by Beth Cutter

Emily burst out the door of Mission Control and raced down the corridor, the only thought in her mind 'faster, faster.' If they caught her- She wrenched her mind away. The corridor ended at a t-juncture and she blindly swerved to the right. Another long corridor stretched ahead of her, featureless except for the pairs of doors that faced each other every ten feet. She ran until another corridor crossed the one she was on. This time she turned left and kept running.

She didn't know exactly where she was. Once away from the main control room this floor was a maze of corridors lined with tiny offices that were barely a half-step above being cubicles. She tried to listen for pursuit. She'd gotten the jump on them, but she knew they wouldn't be that far behind. But all she could hear was the sound of her own footfalls, the sharp clacks of her high heels echoing back from the hard-surfaced walls. Had she lost them?

Suddenly a sharp pain bloomed in her side. Emily gasped. She dug her fingers into the pain, trying desperately to rub away the stitch. Her steps slowed. The magic spur of an adrenalin burst was fading, and now she became aware of her heart pounding and the rasping in her throat as she gasped for air.

Oh, Henry, you were right. He had always nagged at her about exercise, but she had waved him off saying so long as she could fit into her skinny jeans that was fit enough. But he had been right.

She staggered to a stop, and leaned against the wall, still massaging her side. *I can't outrun them*. She twisted the door knob of the closest door, then the one across the corridor from it, then the next pair down the hall. All locked. Of course. Damn security rules. And damn the NASA culture of rigid obedience to them.

Wait. Not everyone was the perfect drone. There was Chris, whose idea of work attire was band t-shirts from the eighties. Emily dredged up the memory of the time she had visited his office, checked the numbers on the doors around her, and closed her eyes as she pictured the route she needed to take. Yes, that way. She trotted back towards the last intersection, doing her best to be fast and quiet. God bless your non-conformist soul, Chris, Emily thought as the door knob turned. She slipped inside and immediately thumbed the lock. Not that that would stop someone determined enough to commit murder.

She grabbed for the land line telephone, standard issue because cell phones were strictly forbidden due to 'security issues.' She hesitated once her hand touched the receiver. Who should she call? Who would believe her? Who would not just believe her, but be able to help?

She couldn't think of anyone.

The first person she would normally turn to was a thousand miles out in space. The second person was trying to kill her. To anyone else in the company, well, they'd look at her as just a nurse with a wild story. Who would possibly take her word over that of the Director? And an expert psychiatrist.

Her mouth twisted. She had to try anyway. She lifted the receiver to her ear - and heard nothing. She clicked the disconnect plungers a couple of time but nothing changed. They've switched off the telephone system, she realized. The Orbital project had been deliberated set off from the rest of NASA. It was Tom Carr's

realm: totally enclosed within the larger facility but set off by rigidly controlled access and functionally independent. She let the receiver thud onto the desk.

There wasn't going to be any cavalry coming to the rescue. If she was to survive, she'd have to save herself.

Emily stared around the eight foot square office. A desk, a chair, and a small bookcase overflowing with binders and tech manuals.

Nothing of any use. Now what?

She was tempted to slump into the chair, but knew she couldn't just stay there. They were looking for her. They would keep looking. Carr had access to the master keys. There were a lot of doors, but sooner or later....

Emily shivered, wrapping her arms tightly around her body. She wanted to hide and there was no place to hide. She was slim enough to fit easily into the knee hole of the cheap metal desks but it would take only a step or two into each office to be able to look there. And then they'd haul her out like a recalcitrant child hiding beneath a bed. Or maybe they'd just shoot her where she was.

Emily flushed. She wasn't going to act like a child hiding from the boogey man. There had to be other options.

She looked up at the ceiling, at the vent to the air ducts. A

thousand TV shows and movies made that number one with a bullet on the list of escape routes. Maybe she could reach it, if she put the chair on top of the desk and climbed onto it. The chair would likely roll off the desk and she'd likely fall and break her neck, but if it didn't, maybe she could unscrew the vent with a dime like MacGyver would.

And it wouldn't do her a bit of good anyway because the damn vent was only four inches wide and nobody was that slender.

Emily's thoughts chased in circles, but finally she faced the fact she really had only two options: hide somewhere inside the Orbital Mission section or try to escape from it. Hiding would only delay her death. Escaping would be difficult since there were only a couple of doors that allow passage into or out of this area.

But a slim chance was better than none.

So. Which door should she try for? The main entry was too obvious so she shouldn't choose that. Unless they thought she'd think that way, and so they'd be expecting her to head for the emergency door at the side. But then they might think she'd think that they'd think... Emily sighed. She pulled open the top drawer of the desk and fished around until she found a quarter.

"Luck be a lady," she murmured, and flipped the coin.

Emily stared grimly at the floor indicator. The Mission Control Room was on the third floor, and the main entry on the ground floor. How could it take hours to descend such a short distance? The number one lit up as the elevator slowed to a smooth stop. The delay before the doors whooshed open was just long enough for her to draw a deep breath and cross her fingers.

There was no one in sight! Now all she had to do was walk ten feet down the corridor and then the lobby would open off to the right and on the far side was the doorway that led out of this Orbital death trap. She scurried down the corridor, turned right ... and froze.

Tom Carr was there.

For a moment all she could do was stare. He was standing in front of the door with his armed crossed. Just waiting for her. Panic flared again. Maybe she could back away - no, he was looking right at her. When their eyes met, he nodded to her.

"Emily," he said. "We need to talk. This," he gestured vaguely, "is all so unnecessary."

"Talk?" Emily's thoughts raced. Run, head for the other door? Yeah, it would be a race and she wasn't much of a runner. On the

other hand, she eyed the man, he was a couple decades older than her, and that paunch must mean he wasn't exactly an athlete himself. But in her gut she knew what she'd find waiting at the side door. Dr. Bauer in all his smug superiority. "Do you think you can just talk away Ryan's murder?"

"Don't be hysterical," he snapped. There was a slight pause. Emily could almost see a fight for control on his face before he spoke again. "Please. Just calm down. No one has committed murder. Once you understand, once you see the whole situation-"

"I won't care any more?" she broke in. "I'll overlook the murder of a good friend?"

"It wasn't murder!"

"And what about the mission? The astronauts on the Orbital? Henry?" She glared at him.

"I would never do anything to harm the mission," he insisted.

"You know what?" She shifted her weight, preparing herself. "I don't believe you." She spun around and dashed down the hall. Behind her she heard Carr swear, and then his footsteps thudded after her. It took just seconds to reach the elevator and hurtle through the open door. She poked the button for the top floor, then slammed her hand over and over on the 'close door' button. Time seemed to slow down. The heavy steps got closer, she saw Carr emerge into the corridor, the elevator doors began to creep together, he was running toward her, the door gap narrowed, Carr was getting closer, the doors were half closed, Carr was almost there, the doors were moving impossibly slow, Carr was stretching his arm out to touch the doors- and finally the edges of the doors met, sealing Carr from sight.

The elevator jerked into motion.

Emily grabbed the railing. Relief tried to swamp her mind, but she fought it off. She was still trapped. She glanced at the elevator panel. She'd pressed the top button out of instinct. She wanted to put the most distance possible between them. But what would she do when the elevator stopped?

And the second she thought that, the elevator slowed.

Emily stared at the control panel. They had only just passed the fourth floor. God, Bauer must be on the fifth floor, he pushed the call button, the doors would open and she'd be trapped in this car with him right in front of her-

"Warning! Warning!" It was a cool mechanical voice. "The elevator system is disabled during emergencies. Exit the elevator immediately and utilize alternate means of egress. Warning!

Warning! The elevator system--" Emily tuned the message out. Emergency? Then she realized that Carr had found another way to use the master keys against her. The elevator stopped and the doors opened, revealing a large numeral '5' painted in red on the wall opposite.

But no Dr. Bauer.

She didn't even pause to be thankful. Beside the five was a sign reading 'stairs' and an arrow and she raced off. She shoved the heavy door to the staircase open and began to run up them.

Half way up the flight she slowed. Where am I going? The roof? Then what? Is there a fire escape ladder? I don't know. I've never taken notice. Surely there must be? But doubt took hold. She stopped climbing. She had waitressed at a diner while she was in high school. It had been popular with the local cops, and she'd eavesdropped on the fascinating tales they told each other. One time the cops had talked about how fugitives always headed up when they were chased in building and usually ended up trapped. 'Maybe they think they can sprout wings,' one had said to guffaws from the others.

I'm not that stupid, Emily thought. Besides, Carr knows I was heading up. She turned and started back down the stairs. I need a plan. She passed the door to the fifth floor and kept going down. Then she heard noise below her. Carr! The belated realization hit her. He couldn't use the elevator either so he was coming up the stairs after her! She raced down the last few steps, through the access door to the fourth floor, and began to run down the corridors again.

But now she was running to rather than from. The medical unit was on this floor, a mere thirty yards and one turn away. This was practically her home turf. The tiny boost to her confidence gave her extra energy. She had her ID card ready in her hand as she made the turn and swiped her way inside almost without slowing down.

The walls of the clinic were lined with cabinets. Their tops were cluttered with boxes, and jars, and bottles of the most commonly needed supplies, and below were ranks of drawers filled with hundreds of items. All of which she was familiar with. There was nothing intended to be used as a weapon, of course, but scalpels made damn sharp knives. She headed for the third cabinet on the left wall, and bent to open the second drawer.

"Hello, Emily."

She whirled. Dr. Bauer was seated on the rolling stool, tucked into the corner where it couldn't be seen from the doorway. *Not*

that I even looked, she berated herself.

"You look surprised, Emily. You shouldn't be. Everyone knows that prey animals run to their holes when scared." He stood up and gave her his practiced psychiatrist's soothing smile. "Not that I'm saying you are my prey, of course." He moved toward her, smoothly, confidently. Emily knew she had no chance once he got his hands on her. He was half a foot taller, heavier, stronger. All the usual advantages of man versus woman.

She grabbed the first thing at hand and threw it at him, and followed up with item after item. A bottle of alcohol bounced harmlessly off his chest. A cannister popped open, sending a shower of cotton swabs to the floor. A plastic tray, a bottle of Betadine, more bottles. Some shattered as they hit the floor, but Bauer just crunched his way across the debris. Compression bandages, a box of tongue depressors. By now she was aiming at his head, causing Bauer to duck and try to bat the missiles away, but he was still smirking. Then suddenly he staggered and had to flail his arms to catch his balance.

He took another step and skidded again.

Mineral oil, she realized. One of those broken bottles had contained mineral oil. Seizing the momentary advantage she lunged

forward with both arms stretched out. Her second step brought her into the oil pool and she slid, too, but her momentum carried her onward and she crashed into Bauer and they toppled to the floor. Bauer cried out as he landed on the broken bottles. Emily was luckier, with his body protecting hers from the glass.

Bauer clutched her but Emily drove her fist into his throat as hard as she could and he fell back, reflexively letting go of her. She scrambled and slipped but managed to get to her feet before he could, and headed for the door. Her oil-covered shoes slipped on the smooth tile with each step, but she made it out into the hall.

By then Bauer was coming after her, as best he could with his feet still trying to slide out from under him. Emily kicked off her pumps and tore off down the hall in her stocking feet. She glanced back over her shoulder and saw Bauer was leaning across the wall, bent over and fighting off his oxfords.

Men make fun of use for wearing impractical shoes, she thought, but at least they come off easily. She ran on toward the stairs.

The basement was shadowy, lit only by the widely scattered emergency lights. It was mainly used as storage, with heaps of

sealed cartons stacked in piles of varying heights. Emily forced herself to walk slowly. While she was running down the stairs she had remembered that there was another exit from the Orbital project area. There was a delivery bay in the basement that was also intended to serve as a quick way to get patients to an ambulance. It had never been needed, so far as she knew, but she bet building regulations prohibited blocking off such an exit, and NASA, bless them, obeyed regulations. Now she just had to get to it. She hurried as much as she dared where the light was stronger, and semi-groped her way though pools of shadows between them. She passed a particularly high tower of boxes and suddenly could see an illuminated 'exit' sign!

She rushed toward it, barely noticing when she carelessly barking her shin on a box along the way.

Then she was there. In the red light from the exit sign she saw that someone had disobeyed the regulations after all. A thick chain was woven through the handles of the double doors, held tight by a heavy padlock. She grabbed a handle and yanked as hard as she could, but it was no use. The door moved barely a half inch before the chain brought it to a stop. Emily felt around the door frame, then swept her hands over the walls for a few feet on either side of the door. Surely someone would have put the key nearby, in case of emergencies?

But if so, she couldn't find it.

She stared around frantically. Think!

Tools! Repairmen needed to work here sometimes. Where would they keep the tools? But the basement was huge. It could take hours to find a tool box, even assuming there was one. Another red light caught her eye. Was there another exit? She hurried toward it. Soon she was close enough to see this one read 'Fire.'

Why hadn't she thought of setting off a fire alarm? Emily rushed over to it, only to find there was no alarm to pull. It was just a wall-mounted box with a folded up hose and a wheel to turn on water... and a fire axe.

Seconds later she was back at the exit door, the heavy red axe in her hands. She had never felt more powerful as she raised the axe and took aim at the padlock.

CLANG.

The padlock hung at an awkward angle, and the chain took much of the impact, but she saw a chunk break off the body of the padlock and fly off. Emily smiled. This wouldn't take very long. She raised the axe for a second swing. CLANG. This time she missed the padlock entirely. She aimed more carefully, and the third swing was a solid impact, but didn't do any visible damage. Maybe it wouldn't be as easy as she'd thought. Still. She was raising axe again when she heard someone clapping.

"Kudos." It was Dr. Bauer's voice. "You are an ingenious one, aren't you? I must admit you have surprised me."

He stepped forward into the circle of red light from the exit sign. She glanced down at his shoeless feet. No wonder I didn't hear him coming. She hefted the axe, held it above her shoulder, poised to swing. "Stop! If you come near me I'll..."

"What? Bury that axe in my head? Split my head open and leave my brains leaking out?" He took a step closer. "Or maybe you'll aim for my arm? Picture it. That blade slicing through my skin, severing muscles, tendons, the awful crunch as it sinks into the bone? How hard can you hit, do you think? Will you be able to cut the arm off completely? Send it flying away, end over end, blood spraying from its severed end while more blood spurts forth in fountains from my torso? Hmm?"

Emily hesitated. "I'll do it," she said, but she could hear the uncertainty in her voice and knew he could too.

"I don't think so, my dear." Bauer took another step. "You're a nurse. And a fine one, I'm sure. Full of compassion and the burning desire to help people. But deliberately maiming someone?" He shook his head. "You don't have that in you."

He was right. Damn it. Emily lowered the axe.

"That's a good girl. Now let's put the axe down-"

Emily shifted her hands on the handle, gripping it now close to the head. *Maybe I can't chop him up, but that doesn't mean I can't club him.* She started to raise the handle to swing but Bauer must have figured out what she was doing because he rushed the last few feet between them and grabbed at the axe. For a few seconds they both had their hands on the handle, pushing and pulling at it, then Bauer shoved the handle against Emily's body. He drove her back hard against the chained door then wrenched the axe out of her grasp.

He stepped back, the axe held high in front of his chest, a triumphant smile on his face. "Now then, what do you suppose my next action will be?"

"Stop!" Both turned their heads at the sound of footsteps racing up. Carr came to a stop nearby, staring at the fire axe with horror on his face. "Stop, for god's sake, man!" Bauer lowered the axe. "Take it easy, Tom." He grimaced. "Even if you think I'm vicious enough to chop up a woman, surely you can't believe I'm stupid enough to do it?"

"Oh." Carr looked embarrassed. "No, of course not."

Bauer leaned over to lay the axe down, then shoved it away out of sight. "I'm not a man of violence." He reached into a pocket and pulled out a zippered medical kit. He opened it and extracted a syringe which he held up for Carr to see. "Besides, there are much easier ways to deal with our inconvenient Nurse Field."

"What are you going to do," Emily burst in. "You can't keep me locked up here forever!"

"But I don't need to." Bauer inserted the needle of the syringe into a vial, and drew up some of the liquid. Then he groped in his breast pocket and put on a pair of glasses. He peered closely at the syringe, squirted a bit of the liquid out, and checked it again. Apparently satisfied, he put his glasses away. "I'm just giving you some time to calm down."

"I know you two caused Ryan's death!"

"Once you think it over, I'm sure you will realize that you've jumped to a wrong conclusion. After all, you have no evidence, do you? Tom, get a good hold on her."

Emily tried to dodge away, but she was trapped between the two men and the solid steel door behind her, and it only took moments for Carr to wrap her up tight against his body.

"Don't do this! Please, sir, don't." Emily hated herself for begging, but it was all that was left to her. "You have a daughter. Jane! She's not much younger than me. Would you help someone harm her? Think of Jane!" She couldn't see Carr's face, but Bauer could, and maybe her words were affecting Carr because Bauer wasn't smiling any longer.

"Yes," Bauer said. "Think of Jane. Think of your whole family. Think of what will happen if she gets to a reporter. The end of our careers is just the start. It could mean the end of the Orbital mission. Think of the impact on NASA itself. You know there are plenty who want to cut all funding for NASA and spend the money elsewhere - this could be the final straw." He paused, a look of steely determination on his face. "Think," he repeated, "and then hold her arm out."

Emily tried to resist, but Carr was too strong. Bauer stepped close, and she felt the needle stab into her flesh.

CHAPTER TWENTY-FIVE by Adela Torres

The checklist swam for an instant before Henry's eyes. He blinked and shook his head—which did nothing for his headache—and tried to focus.

PANEL 1A, it said, and to the right of it was a little empty square. Henry put a tidy tick mark on it, put the checklist back in its clamp by the console, and looked for a moment at the open panel with its organized tangles of wires and its flashing LEDs. All nice and reassuringly green.

He had already inspected the rest of panels: 1B to 5R, in reverse order—because he too had his quirks, no matter what everybody else said. Thorough check, following the manual and then following his own internal manual, which went a notch higher. Now he just had to put the cover back on panel 1A, finish with all the logs, and then—a shower, a cup of coffee, a moment to put his feet up. Small rewards to remind him that not everything in life was work, as Emily said. Why did it feel like the small rewards were work too?

No matter. He retrieved the cover, floating gracefully on its tether, and fished in his pocket for the first of the magnetized screws that held it in place. As he tightened it his eyes still darted to the checklist, *Have I forgotten anything? Is everything as it should be or better? Would you stake your life, and the lives of the rest of the crew, on your work?*

Yes, and yes. And yes. He tightened screws and felt his shoulders ache. A shower, yes, most definitely. Even the tiny, spartan, trickle-of-recycled-water showers of the Orbital seemed tempting.

His last real shower had been on Earth, with water that fell down as water should, and foam, and creamy shampoo, and fluffy towels. And Emily. It had been the day before getting to the Orbital mission control for the launch. They'd given them the day off and Emily said she'd make sure he remembered that day, and that shower. She succeeded. Admirably.

Another sign of how tired he was: he never woolgathered during work. He grunted as he tightened the last screw, a quarter of turn more than it strictly needed. Screwing things in zero-g was hard work, he thought. *Screwing things*. He sniggered aloud, and then sobered up. *Stop that. Your mind is going where it shouldn't go right now*. *Nor for the next months, either.*

There. Done. Allen key back in its pocket. A furtive pat on his chest pocket in passing, as a last concession to woolgathering. Checklist complete. Everything OK.

Floating past the window that offered an unparalleled view of the Moon, he went to his console and buckled himself up on the seat. The standby lights pattern changed as he called the maintenance program and began to type in the checklist results for Morris's benefit.

"Page. All done?"

Henry turned, not exactly surprised, to find commander Rhodes entering the command module, gliding easily and gracefully. Maybe he was lucky, maybe his sense of timing was particularly impressive; but he never butted in while Henry was working, and he always seemed to appear, as if by magic, the moment he finished.

"Done," he said, still typing. "Everything is as it should be." Rhodes came up to his chair, looking over his shoulder at the

screen, then down at the checklist. This irritated Henry, but he was wise enough to know it was better to say nothing.

"So. Nothing out of place, then?"

That was a bit odd; Rhodes didn't usually repeat himself. Henry shook his head as he typed in the last of the data and re-read the file. He hit "Save" and checked again: the program allowed him a five-minute window during which to make changes on already-saved data.

"System check complete. All systems green," purred Morris in his—her—its—contralto female voice, and Henry's tired mind went back briefly to his last shower on Earth with Emily. Then he shook himself up, irritated, and bounced slightly upwards; the seat's restraints kept him softly anchored.

"I've checked absolutely all systems and there's not even a bad connection. Including the redundancies. I can run simulations if you like, but—"

"No," it was Rhodes's turn to shake his head. He seemed—preoccupied. He rubbed his slightly crooked nose: a usual gesture when he was thinking or worried. "This is fine. Thank you."

"Cheers," Henry shrugged, and grimaced. Maybe more gym

time would help with the tension in his muscles. He checked his watch and was surprised to find it was already the night cycle. "Where are the others?"

"Michael is in the galley, Nicola on the exercise area. It's past your shift. Go get some sleep."

"In a minute." He still needed to check the backups and update his work log. Of course, he could leave it for later. It would keep. But it was his first mission, this was the *Orbital*, he was the Engineer (the word always sounded with a capital 'E' inside his head, in Emily's delighted squeal), and he would *not* start slacking off now. *It will take you only fifteen minutes, tops*, he reminded himself, and then—shower, coffee, rest. All the comfort the Orbital could provide, which wasn't much, but would do very well at the moment.

Rhodes didn't object to him staying longer. He simply nodded, slapped his shoulder in that manly, friendly-but-not-too-much way of his (Henry winced; Rhodes was a strong man), and left.

It was a rare privilege to have the command module all to himself, and Henry would have appreciated it more if he hadn't been so tired. He called his personal log, updated it, re-checked everything just in case, and was about to call it a day (well, a shift)

and join Nicola in the exercise area to unwind. He took his mobile terminal from a pocket to check the time, and he saw the yellow icon blinking on the main screen.

A personal message. How long had it been sitting there? He must have missed the beep, busy with the systems check. Hoping it was from Emily, he opened it. His initial disappointment when he saw that it wasn't from her was immediately replaced by surprise at its contents.

FROM: Jarvis, R. (rj_capcom@orbital.org) TO: Page, H. (hp_eng1@orbital.org) SUBJECT: Request Henry, I need you to disconnect the MRD system the moment you read this. The attached folder contains some encrypted recordings from the training module which I suspect will be very interesting. When you get back to Earth you should show them to the police. Ryan ***File Attached: 0200311679_1.crx***

Henry let our a low whistle as he leant back in his chair and

re-read the message a couple of times. Disconnect the Mission Recording Device? Interesting recordings? The *police*?

He was glad Rhodes had left. It would have been difficult to explain that message to the commander.

Disconnecting the mission's black box was against everything Henry had trained for. Then again, Ryan Jarvis was a fellow engineer and CAPCOM of the Orbital mission. They'd gotten along very well during training, and if not for the accident that broke his arm, it probably would have been Ryan who'd be up here.

Even then, this wasn't an official order, or it would have been sent to Rhodes. Personal messages didn't go through the MRD, but the system would record the downloading and saving of the attached file to the *Orbital*'s servers.

Something must have happened down on mission control. Maybe Ryan wanted to keep some sensitive information safe. *And* he knew that Henry could disconnect the black box without authorization from Rhodes; it had been designed that way in case of malfunction. Henry considered the possibility of asking for a clarification; Ryan was jumping the chain of command, after all, and there *would* be questions when Henry came back. What was in that file? He had been in training and didn't remember anything out of the ordinary.

Still thinking, he opened the master control program and pulled up the DRM interface. It would register him as the one who disconnected it, and Henry's hands hesitated over the keyboard. At least Ryan had been kind enough to ask in writing; if the need should arise, he could show there had been a direct request from CAPCOM.

He looked again at the Moon through the window; no answers there. After a few seconds, he pressed the keys; the black box stopped recording, and Henry downloaded the recordings.

He sat for a moment, aware that he had done something outside his responsibilities and feeling the unwelcome adrenaline rush. Time to go to the gym and work his nerves out.

But he didn't move. His hand, on its way to unlatch the seat's restraints, stopped over his breast pocket. This time he didn't pat it: he opened the velcro closure and produced a small dark blue velvet bag. Pulling the drawstring open, he took out an engagement ring: white gold with three small diamonds. Holding it between thumb and forefinger, he stared at it for a long while, ignoring the pockmarked, silvery face of the Moon filling the

window of the command module.

The End