

CONTAGION

Remote Recruitment

"I hear there've been problems with Resolution too.

"That's the rumour."

'Particularly bad news when she was supposed to be a fast support and now relief for Intrepid. No news of that ship either?'

"Not since the ship reported its arrival at the supposed source and rendezvous point and then declared an emergency over an unidentified signal intrusion."

"No wonder Command is a bit arsey – losing the relief of the relief of the missing."

The two officers were preparing the tiny, windowless office for a meeting, laying out papers, screens and glasses at four places, scanning the room for comms security, which meant they could be reasonably certain for once that their conversation was private. Even so, Major Aldo looked at his junior officer disparagingly.

"Resolution isn't officially lost or even classed as 'missing'; it could be just a comms issue. It's a miracle comms works at all over that distance."

Captain Hayward wasn't giving up so easily. "Of course, but no update about or from Intrepid and no news of Endeavour 2, the first to go missing – and then there was the trouble over the original Endeavour, the first incarnation, a different kind of fuck-up. "

The major seemed to give up disapproval as a bad job.

"Well, the Endeavour affair was not a different problem – just the beginning of the same problem, the weirdness with personnel. She reached the target planetesimal OK, but the crew came back without attempting to complete the mission. They then tried to desert by altering their return trajectory from Earth orbit!"

"What the fuck is going on out there? "

"The General's very own words. It's been given a name, Remote Recruitment, and it could be 'down here', not 'out there'. There's a story doing the rounds that two other officers tried to leave the service just before their missions – after going through all the simulations, the bio-alterations – the so called deep training, which had mysteriously 'not taken'. Command's publicly stated explanation is that it's a rival power's biological or psychological weapon. If that's right then either it can reach the crew remotely in space – a pretty flaky idea – or it's happening during training down here – slightly more believable but even more disturbing for Command. That would mean a very high level embedded enemy agent capable of sophisticated, undetected manipulation of our training programme."

"How could any rival power affect our crews in space? They wouldn't have any idea where the ships are or where they're heading."

"They shouldn't have, but that doesn't mean they haven't. We picked up the signal, though nobody's saying how or where, so presumably they could too."

"You said 'publicly'. What are they thinking privately??"

"That whatever it is out there, beaming barely detectable, frequency encoded data at us, is somehow responsible for reprogramming the crew – which is hard to believe, even if you are an extraterrestrial nut – and anyway wouldn't explain the cases down here, unless it's catching, like everything else these days."

"I suppose in a way it doesn't make any difference. Whatever is doing it, it's still driving Command crazy."

"I think one of our space rivals with new tech would be preferable; at least then we have a chance of catching up with them – or stealing it. If it's coming from the signal source that means alien technology – and alien technology resisting our best efforts to deal with it by taking over the minds of our crews – which would be terrifying, if it wasn't ridiculous.

" Hmm, but if it is Allied or one of the others, that would mean that all our new training and conditioning methods are useless, total crap; everyone on these remote missions must have had the latest deep conditioning.

"Yes, true, plus the implants and a physiology altered to cope with the long missions in deep space."

"Of all our officers, you'd think they would be most able to withstand this kind of attack."

"You'd think, yes, especially as it's becoming ever deeper and more invasive – instead of which they become totally unreliable, stop responding to orders or run away from their missions and have to be written off as assets"

At this moment the conversation stopped as a colonel and a sharply dressed civilian entered the office and started to check the arrangements.

Figure Massage

"Well, we could lead with the levelling of the rate of increase over the last three weeks. I don't see what else there is that could be made to look positive." Josh was aware how feeble that sounded. They both knew that the flattening of the upward curve had been produced by 'adjustment' of the statistical sampling method.

"Unless we go with the extra cash promised for virus engineering research, but we put that into last week's bulletin as a stop press item." said Graham.

The figures had come through so late that they had been forced to meet in person in the secure comms room, well after office hours. The strain of focusing on several screens had given Josh a headache and he was tired, had been tired all day, all week when he came to think of it. The white walls and ceiling reflected the artificial light with merciless efficiency.

Josh nodded. "We got rapped over the knuckles last time we repeated something, end of last month. I think it could be worse next time."

"OK, can we go as far as to call it a 'dramatic reduction'?"

"I think we could get away with 'significant'." Josh was the authority on expression.

"OK, so we start with 'a significant reduction' for the link and keep 'rate of increase' in smaller case for the floating body. Then we can of course arrange the table of figures with the comparison of the second order rates with 3D weight on the top and the raw rates below as usual. Let's test that out!"

They did a simulated release and the public confidence forecast was no worse than poor. They tried a small sample public release but the actual responses were well below the simulated. The public were understandably cynical.

The work continued for another hour and a half. Josh realised he was contributing nothing and that the bulletin wouldn't pass as it was. Even simulated scores had not improved, had even started to deteriorate.

There seemed no point trying a further sample release. They both knew that the thing needed major re-working, but Josh was certain Harris didn't have the nerve or the ability to do that on his own, despite his seniority. The actual mortality figures were as depressing and as far from under control as ever and a convincing positive slant on them was beyond him in his present state. He asked himself yet again how he had ended up in this job, trying to hide the grim reality from the public, who didn't believe a word of their bulletins anyway. He was used to feeling uneasy about what he did but he could normally convince himself it was better than joining the hordes of uninsured unemployed; that wasn't working tonight. He was seriously miserable and exhausted.

He saw that Harris, who must be realising that they were only likely to make things worse with his assistant in this unfocused and unresponsive state, was actually sweating with anxiety. Josh was tempted to sneak something into the bulletin with a disastrously gloomy double meaning, just to enjoy the thought of Harris' reaction when it was pointed out to him by his Northern bosses – but his head was in no state to be that clever.

Harris didn't argue when he told him he wasn't feeling well and needed to go home; he had been avoiding looking at him for some time – probably terrified his assistant was infected – and infectious – with one of the same resistant strains they were trying to avoid reporting the full facts on. He was probably worrying whether he would have to find someone else to do the writing for him; he was quite capable of asking for a replacement that same evening.

By the time he got back to his flat, it was very late. He sat on the unmade bed waiting for the heat exchanger to take the edge off the chill. His limbs ached, his head throbbed and there were odd flashes when he closed his eyes. It was just a fluey cold virus, he thought, there were plenty about; Harris was such a coward.

He didn't feel hungry. He gave himself a combined painkiller and antiviral dose and got under the duvet. He lay there awake for a long time in the dark, phantom sparks behind his closed lids and an electronic buzzing in his head. The dreadful state of the bulletin kept coming back to him with a lurch. What would their handlers do? Every week the raw statistics told the same grim story of proliferating antibiotic and treatment resistant diseases, of mortality rates beginning to look medieval in scale. The big three company/ power blocks with the resources were all too busy cutting each others' throats to do anything about it. His own employer, Northern, the most powerful, was the worst offender. It had the UN its pocket too.

James Willoughby, taken ill at work and off sick now for over two weeks, someone from HR the week before, one after the other people had gone off and not returned. You seldom heard what was wrong with them these days, just off for weeks or maybe a month at most and then there was a funeral. The last he had been to was a bleak, thinly attended affair, everyone keeping clear of the coffin, five or six of them standing well back from the open grave, avoiding each other. He forced his mind away from the memory, only for it to be assaulted by a whirl of luminous numbers and graphs from the unfinished bulletin. Eventually they faded and he swooned dizzily into sleep.

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Shadow Rotation

"We are now in radio shadow. Allowing for the increasing time differential and the slight but significant relativistic effects, we will emerge in approximately 51 hours, by ship's time, of course," announced Mallinson authoritatively, clearly enjoying his Comms officer role. "There'll be a fairly wide fringe of interference, so it will be a good while longer before we can communicate effectively. The comms delay at the moment is over sixty-seven hours. By the time we have line of sight again it will have reached about seventy-three and we will have continued to accelerate of course, though we won't have Doppler confirmation of our relative ΔV until the signals catch up with us."

Mallinson was not only the Comms officer but also their biologist/chemist and their cook, a good one, though their rations gave little opportunity for creativity.

"Yes, we'll just have to wait and see – mainly wait." That was Mark Allans, their lead officer, which was as close as they came to a CO; he was also their physics and general systems expert.

They had been in hiber sleep rotation for many weeks while the ship had been under uniform acceleration. Now it was in the midpoint rotation before it began the deceleration half of the journey and they were in changeover mode: everyone awake for at least 15 hours to give time for checks on the systems and on each other, making sure there was no loss of functionality. Caz, Allans and Mallinson had been the ones in hiber state for the last 150 hours, considered the optimum safe period, while Alekski Kivi had been awake, monitoring systems and making the routine reports.

Deep conditioning had exacerbated Mallinson's personality defects, Caz thought. They all knew the effect of having the sun between them and the relay stations and the truth was that a break from Command's ceaseless demands for status reports on their mental and physical health, not to mention the ship's systems, was something of a relief, at least to her.

It didn't really add much to her sense of isolation; the growing time lag and difficulties with comms caused by the vast distance and their constant acceleration had already made it very clear how tenuous the link to home was becoming – but she'd accepted isolation as the price of being in space, a condition of the mission – particularly her own peculiar role in it. Being out of contact didn't change anything; they were on a set course; even any evasive manoeuvres, highly unlikely anyway, would be handled by the computer – and it was not as if satisfying Command's demands for status reports brought any reward, such as information about their mission or what awaited them in the Oort Cloud. They had been told that they were now a relief mission, that the two other ships were out there in need of help, but that was all. Command was so uptight about security that their mission orders would remain electronically sealed until they arrived. At least, she thought, the planetesimal they were aiming for was a tiny object, so there was no gravity well to worry about. That would have given them a good chance of making it back – if you ignored:

(a) being in an armed space race for a mystery weapons tech

(b) what had happened to the earlier crews, leaving them apparently psychologically damaged or just missing together with their ships.

"So, now we have so much time on our hands, anyone for backgammon?" Alekski asked deadpan. Navigation was his chief responsibility but so far he had had to do no more than check their position against the ship's and Command's observations.

"We're not all as sublimely redundant as you; some of us have work that actually needs doing," said Caz.

"Why, what are we going to do now we have no-one to send status reports to? Polish the consoles?"

Caz's role as LACC officer made her welcome anything that helped to relax the atmosphere, even though she knew their deep conditioning was supposed to have removed all feelings about

the mission, including her role. She rather wished they did show some sign of resentment.

"Command is still in control, even without direct contact," said Allans. " We can't actually send the reports, but we still have to file them. They'll all be time stamped; we can't afford to be late or miss any. Command might interpret anything like that as loss of functionality."

"Yeah, it's a real pain. Command was arsey enough before it got ants in its pants about remote recruitment." said Aleksi.

"Command knew all about this blackout. I bet they've pre-programmed one of those lovely drills to keep us busy – possible hostile signal detected is the usual one. " said Aleksi.

"They may annoy you but they're designed to protect us," said Mallinson. "We don't know what affected the other crews and ships and we can never be sure it's a drill; it could be a real threat."

That was Mallinson at his most insufferably prissy. He tended to be moody, too, – though of course he was as professional, efficient and precise as the others in carrying out orders. Caz could almost believe they had all had human personality traits grafted on in training to make them appear more human: Mallinson moody self-importance, Aleksi cynical humour and mock flirtatiousness, Allans paternal protectiveness and concerned responsibility; she found them spooky but fascinating.

"Time for systems checks," said Allans. " I suggest we stay in our usual pairs; it's more efficient - unless anyone has an objection."

"Just because you and David want to be alone together, look what I have to put up with." She nodded in Aleksi's direction.

"The truth is, Caz, they're both terrified of you, sexually. Allans is using his seniority to get the two of them to safety - and so it's me you land up with." Aleksi affected first a despairing look and then a leer. "Never mind – I'm sure we can keep each other amused."

"So it's our turn to do the navigation, comms and human interface systems," said Allans, quietly ignoring the banter. "You're on directional control, shielding and drive. It should take us the usual three to four hours. We'll get together before the next watch to share any findings, then submit results to the secure record system. OK?"

She and Aleksi moved off together around the hull walkway and started on the first system, directional control. This meant firing pairs of opposing directional jets for a split second. She was certain they wouldn't find anything wrong.

"Do you ever get the feeling we're trying to pull each other in opposite directions and getting nowhere?" asked Aleksi in dramatically depressed tones as she fired the second pair.

"They do say that couples invariably limit each other's freedom," answered Caz. "Are you trying to tell me our relationship isn't going anywhere, Aleksi?"?"

"You need to bring up the side by side acceleration graphic, Caz," said Aleksi, suddenly totally serious.

"There's no discrepancy in delta-V or trajectory."

"There may still be intermediate vectors not perfectly matched."

Caz was quite sure that there was no chance of her having missed this kind of error. It could only be hidden by another identical one at the same instant, given the perfectly matched final sum the readout showed, but she knew better than to argue with the crew on any point of duty or protocol.

When the graphic revealed a perfect side by side match of vectors, Aleksi just nodded to her to move on to the next pair, with no sign of embarrassment or apparent awareness of her irritation. His cynical and occasionally suggestive remarks continued from time to time throughout the checks but there was no let-up whatsoever in procedure; every check she made was observed, checked, tested and often enough he insisted she repeat a process or use a different method, despite always obtaining the same result. The rigidity was absolute and should have repelled her, but a foolish part of her was tempted to respond to it as a challenge, though sensibly she knew that such a relationship was impossible, would be a serious breach of standing orders – and that Aleksi could not possibly want anything that conflicted with orders anyway.

Special Cases

Director Harding was visiting the United Nations Agency for Space Technology, where a large chunk of his funding originated. Walking from the conference room with the assistant director of UNAST, Sean O'Donnell, he suggested that the two of them could do with a drink. Sean raised his eyebrows.

"I haven't got long. I have a meeting with the big space boys at three and some preparation to do. Doesn't do to go naked etc. Our usual watering hole?"

"If you think it's still OK."

"Ah, I see. In that case, I have another spot in mind. I thought there might be something other than funding bubbling away in that devious brain."

A few minutes later, they brought their beers to a table near the middle of a crowded, warmly lit basement bar; a jazz trio providing loud but not raucous music from a tiny platform at the rear.

"So what's up?" asked O'Donnell

"Those special cases we were talking about a while ago. One of them, you remember, interesting guy, left a Northern military hospital rather abruptly."

"No longer in need of their medical attention?"

"Right as rain apparently. He has become de facto leader of a small group,"

"With no health problems?"

"Not any more."

"And?"

"He says they are in danger from the biggest of the big boys you are about to talk to. You've heard about the Northern space boys' difficulties, I'm sure."

"Yes, but I can't say I quite believe in all that – at least the way they are telling it."

"Well they seem to believe it and they'll do anything to lay hands on this group."

"So what do you want?"

"I would much rather we had the chance to find out what is going on, in a civilised way of course, rather than allow the big boys to get hold of them, which could be bad for them and unhelpful for us."

"I think I agree, off the record, and if it can be arranged."

"The problem is that Northern military will publicly declare them a danger to their space programme, i.e a global security risk, in an effort to override any refugee status they might possibly request."

"Yes, I suspect the only reason they haven't done so already is to avoid drawing media attention to the sinister nature of their training methods – and the attention of their rivals to the failure of the training."

"So, as suggested, I have been providing this odd little band with temporary refuge. The problem is that the resources ranged against them mean that they are bound to be found. In fact we have intelligence that Northern is close to tracking them down. I had a bizarre thought about how it might be possible to safeguard them for a period and also to study them first hand."

"I see. I'm beginning to have horrible imaginings about how UNAS comes into this."

For a moment Harding hesitated. The outlandish nature of the solution he was about to propose, together with the risk and the technical problems involved, almost made him lose his nerve, but he ploughed on.

As he explained, O'Donnell's face looked first incredulous and then alarmed, but he continued to listen.

B.I.S.

He woke coughing and spluttering, his pulse racing, desperate for air. He had been dreaming he was choking on some viscous, dark liquid. There was a strange smell. He sniffed the skin on his

wrist; it had a cloying, flowery scent; his eyelids were sore and the glare through them was painful. He forced himself to open his eyes and with a great effort heaved himself up onto his side. He tried to remember what day it was. He had to get up.

He managed to sit, swivel round in the bed and get one leg and then the other onto the floor. He stayed like that, head down, trying to focus. 'Monday?' he thought. That didn't sound right. He felt very ill; the bug had a harsh grip on him.

Thursday, not Monday, he remembered, at work yesterday, feeling unwell, telling Harris -they'd been concocting the bulletin. He got to his feet; bile rose up into his mouth, there was a wave of dizziness, his knees gave way and he was sitting down again. All the current plagues crowded into his mind. He tried to push them away, to hold down the panic. He hadn't been in contact with anyone infected; it was just one of the nastier varieties of flu, made worse by overwork and stress. Anyway the last thing he wanted to do was call in sick, handing himself over to 'the Morgue', as the company medical facility was known.

He struggled up again and made it to the bathroom. He tried not to look in the mirror but couldn't avoid a glimpse of pallid skin, sunken eyes with yellowing whites and drooping lids. He had trouble locating the tooth gun and even more using it. His right hand shook and didn't go where he tried to put it. The gun seemed massively thick in his fingers and he somehow thrust it halfway down his throat, gagging in the basin as a result.

If he wasn't going to call in sick how was he going to get there? He didn't think he would manage it by public transport, if they let him on. He could try to get a taxi but even getting down to the street seemed a mammoth task – and there was nobody he could ask for help, now he was on his own – and anyway no taxi driver would take him if he seemed unwell; people were too frightened to take that kind of risk.

The effort of getting cleaned up and dressed left him too tired for anything further. He still had no appetite; in fact the thought of breakfast made him feel very sick. He walked carefully over to the bed and lay down. He began to realise he really had no choice but to call in; they wouldn't let him into the building in this condition. He surrendered and tapped 'work', 'absence', 'illness' and was presented with a list of symptoms. He clicked on two or three and sat back against the pillows to wait.

He must have drifted off, for the door buzzer appeared to sound almost instantly. He let the company paramedics in; they were two hefty individuals, so masked and covered in sterile gowns he couldn't tell for certain if they were male or female. They insisted on placing him on a stretcher and carried him at speed into the lift and outside into an unmarked white van. Ambulances were in short supply.

When they arrived at work they got him off the stretcher, supported him on both sides through the entrance and propped him up against the wall of the upper floors lift. While he was there, he

got a message from the managing director, Burns: 'Heard you weren't well, Reynolds. The lift will take you straight up to the clinic on the top floor – all examination expenses covered by the health package.'

The two paramedics fastened him to a handle with a plastic belt round his waist, pressed a button and left quickly before the doors closed. When they opened again he found himself in a gleaming white corridor curving away, with no visible doors. As he was gathering himself for the effort to leave the support of the lift, a section of the corridor wall opposite slid open and a white coated man in a mask and sterile gloves stepped quickly out, unstrapped him and took his arm. "This way, Mr Reynolds, Mr Burns said you were on your way."

He was helped into a small room with more brilliantly lit white walls, a trolley bed, a large screen, a wall telephone and a glass cubicle. The wall appeared to slide together behind them, leaving no visible mark.

"I hope you're not claustrophobic, Mr. Reynolds – the whole clinic is sealed against infection, airtight. This, as you can probably see, is the preliminary examination and decontamination room. I'll help you undress and step into the cubicle for the decontamination process. It's just a seated hot shower with a disinfectant gel added at source."

A few minutes later, showered and dressed in the usual loose and scratchy hospital shift, he was wheeled on the trolley through another seamless door into a much larger bright, white space with many trolleys, metal cupboards and machines. A very young looking whitecoat asked him a few questions about his symptoms from a distance and then he was into a long series of automated tests: sample taking, scans and other examinations.

Some time later he was left to himself in a cubicle heavily curtained off from the main room; he dozed, having been given a mild sedative earlier.

"I want to you to prepare yourself for bad news. I'm afraid the tests show that you have picked up one of the rarer prion based infections."

"How bad is it?"

"This one seems to be designed to do a lot of damage before obvious symptoms emerge – almost certainly bio-engineered, a stray weaponised agent. As you probably know, prion infective agents attack the nervous system, starting in the brain."

"What are my options?"

The doctor, who had woken him by coughing discreetly, ran his fingers through his silver hair and looked away for a moment. "The problem we face is that any treatment that halts the protein misfolding is dangerously toxic and destructive; if it is successful it would then be necessary to rebuild the extensively damaged parts of the nervous system – i.e. massive regeneration using stem cells, which would be lengthy, complex and very expensive. Just keeping the body alive

through these procedures is a very difficult and costly process; it has been compared rather melodramatically to death and rebirth – and is also very risky.”

“So I take it the company package doesn’t cover that!”

“I’m sorry, Mr Reynolds, but it’s only available to the very rich indeed. We have neither the facilities nor the resources.”

“Can’t you just stop the disease and let me deal with the consequences?”

“At best, you would be left incapacitated and needing constant medical care. More probably the medication would kill you. In any case it’s not a course we are allowed to follow – ethically or legally.”

“Again not covered, I suppose – and uninsurable.”

“Not covered but not an option either. We’d be prosecuted for negligence or worse.”

“So you’re saying it’s incurable – that I’m going to die.”

“There is one option we can offer you under the company plan, BIS – Biological Identity Sus..”

“I know what BIS is. In some ways I find it more horrifying than dying.”

The doctor allowed himself a fleeting expression of disappointment. “Believe me I understand that these are hard, even desperate, decisions for anyone. You must try to remain calm and see the alternatives clearly”

“Surely BIS is also completely beyond my means – I can’t believe it’s included in the package.”

“It is, under certain funding conditions; the funding resource should be obvious to you.”

A disturbing thought was occurring to him. “I don’t see what you....”

“Consider, Mr. Reynolds. What assets have you to offer?”

“You’re talking about body parts – my body parts. But they’re damaged. Who would want them?”

“At the moment there are many parts and organs untouched by the disease. It is even possible, though unlikely, that somebody with a great deal of money might pay to have the damaged parts repaired, if the DNA match is excellent – all the easier if the body is in a dormant and suspended state. They would end up with a comparatively young and hopefully healthy body with a lower brain stem to use as a host for their personality. The value of such a body is very considerable, as you must know.”

He did know. “And my brain, me, my identity - would be kept for how long?”

“Indefinitely, barring world wars and other global catastrophes – the cost of preserving the small parts of the brain housing the higher functions is pretty low; it’s the transplant operation that

costs, but your body would pay for that in its present state; the ongoing storage and eventually the restoration or whatever solution is found would be funded by the balance, invested according to very stringent regulations.”

“What do you mean – whatever solution is found?”

“Mr. Reynolds, who can say how medical science will develop or how future governments and societies will deal with this particular problem? At the moment there are only some hundreds of thousands of personalities stored in this way across the world. So far only a tiny number have been revived and placed in host bodies that have become available but these few have in most cases been able to adjust and live out their lives, at least so far. The treatment is still fairly new. It may well be possible soon to grow a replacement body for you; after all there would be plenty of your DNA. Another possibility is that whatever personality uses your body as host will deteriorate to the point where no further life extension is possible. With the latest anti-ageing techniques your body may be able to welcome you back without showing too much wear and tear – in a sense you would have merely lent your body and would be benefiting from a complete cure paid for by someone else, though in this case that isn't so likely because of the rather extensive neural damage.”

A disorienting sense of unreality overcame him, floating on top of his exhaustion and nausea.

“What a world! I have a choice between death and selling my body to pay for pickling a few bits of my brain; somebody else can have my cured body but I can't afford it! The price of survival is my body.”

“I'm afraid I am too familiar with these ironies to be shocked; just consider that a few years ago there would have been no solution of any kind. In any case you need some time to consider things – but not too long or the disease will do too much damage and your options will disappear. We can at least start treatment to try to slow the disease down and give your damaged nervous system some artificial support. More injections I'm afraid and some neural frames. None of it will be comfortable. Now I am needed elsewhere; the nurse will take care of you. Your dataread should start working again with the neural frames and you'll find my details on it. Let me know what you decide as soon as you can as we need time to find and locate possible clients for BIS. Good luck, Mr. Reynolds!

Last Line of Defence

So here she was in a double-skinned ceramic capsule containing a superconductor generating a powerful Meissner effect surrounded by vacuum with a sealed physical voice tube for communication with her crew and a hardened, encrypted data link to the ship's computer which apparently operated in nanosecond microbursts. Military paranoia or necessary defence? She wasn't sure.

The alarm for the alert had sounded while she was asleep. The screen had displayed 'Possible alien signal intrusion. Immediate emergency isolation procedure. Await further analysis.' She hadn't had time to shower or eat and had been relying on wipes and tube food; she felt grimy and limp.

The capsule had been designed with zero gravity in mind and it showed: everything was curved, including the 'floor'. Caz realised that she was a little frightened - as well as bored and lonely. She had now been there for 23 hours; her only duties were monitoring the backup general systems screen, which showed nothing but their decelerating change of position through the outer regions of the solar system. Her orders were to stay there until the alert was cancelled and monitor crew behaviour.

As LACC officer she had been trained for prolonged isolation and inaction but she found it hard to believe in 'remote recruitment' as a weapon let alone understand how it could actually work. Since she was only added to the crew as the last line of defence against it, she had had to suppress her doubts during her hurried training. The measures she was supposed to take if it happened, if she had evidence they had been 'recruited', were chilling. She had been conditioned to avoid emotional attachments but she had found it more and more difficult at such close quarters. Despite the rigidly programmed behaviour they were human..

The timer sounded at last. This was her general contact call, checking in with each of the crew in turn. The hiber rota was suspended, the sleepers woken early by the alert. She was allowed a little time for personal conversation in addition to the exchange of passwords and reports, partly for her own mental health she imagined, but also to check for anomalies in behaviour or performance; she was instructed to look out for unexpected changes in personality or non-compliance with regulations, particularly attempts to interfere with her role.

She sent Aleksi the signal first; at least his usual flirtatious cynicism might relieve some of the tension she was feeling in her suddenly powerful role; not only was she now in command but they would know she was checking on them. She found it hard to imagine any of those three hardened professionals being taken over.

"Hi, Caz!"

They exchanged time stamps and reported everything nominal.

"How are you getting on, alone in the dead centre of the ship?" asked Aleksi.

"Dead is right. The last major event was when I took an unusually deep breath after forgetting to inhale. Nothing seems real. I'm not sure this conversation is real, though I can't believe even my deranged brain would invent something this weird."

"Thanks for that. So, a hint of ennui?"

"Ennui doesn't begin to describe it. I've finished counting the rivets in the walls and I know

mission standing orders by heart."

"So I should hope; any good LACC officer should be able to stave off mental collapse by reciting them backwards - but you've clearly been skipping the exercises."

"You'd think I might hallucinate someone with charm at least. Anyway, I must move on to the next illusion."

"Such a comforting philosophy, solipsism. I am tempted to adopt it myself. Goodbye, isolated figment."

She closed the connection. She'd try Allans next. Maybe he would have some idea what caused the alert.

Universal Synthetics

Director Burns patted him on the shoulder with a gloved hand and helped him sit in the larger of the two chairs in front of his desk. He sat down next to him and turned his chair to face him.

"Well now, how did you get on at the clinic? Of course I have a preliminary report – no patient confidentiality hiding things from me I'm afraid – dreadful news and a terrible situation for you, terrible. Obviously you can't return to work – but I should think that's the last thing on your mind at the moment."

Josh was silent and found himself staring at the Persian pattern of the carpet, too frightened to think. His mind shied away from his future, death or a form of pseudo-death.

Burns cleared his throat. "Personally I can understand your or indeed anyone's reservations about the BIS procedure – medically drastic and offering a distant hope of survival in an unknown form – but then it's a desperate solution for desperate circumstances. I hope at least the neural frames are a help?"

"Yes" Josh swallowed "– they take a bit of getting used to – but – at the moment – they do help me control my arms and legs – otherwise I would probably fall over and not get up."

"We'll try to make sure that doesn't happen." Burns cleared his throat again. "I wonder – obviously the company can't finance advanced corporal reduction and full regeneration – only a few individuals have ever been able to afford that – but I wish we could do more. As I said I can understand that you're struggling with the whole idea of BIS and I can't blame you for a moment."

He laid one hand on Josh's hands before he went on

"There's a rumour that these prion based diseases are weaponised but I can't think of any reason why you should be targeted – you're not a field operative – so presumably you've just been very, very unlucky. There's nothing more we can do in house but there is a different option – nothing to do with the company – an organisation which perhaps might be able to provide something

you might find less – er – terrifying – though still likely to be extreme I’m afraid. No easy solutions. I could put you in touch.”

Josh could not help feeling a stirring of hope. “What kind of thing – a form of BIS or actual treatment?”

“I can’t answer that I’m afraid as I don’t know what they might suggest. I only know others have been helped in similar circumstances.”

“As grim as mine?”

“Possibly. Get in touch with them –ah, I see your implant is working OK. Mention my name. Actually I can do that for you if you’re interested.”

“Interested? – I’m desperate for any alternative...”

.....

“I’m Marta Winthrop, Mr. Reynolds, your personal company assistant. Welcome to Universal Synthetics. It’s my job to represent your interests – whatever happens between you and us, I will remain your contact and your agent. Life changing decisions are taken here and I will make sure that your wishes and interests are known and that you are always fully aware of the implications of any outcomes we may propose. May I call you Josh?” The voice was strong, resonant with professional integrity and underlying warmth. Josh nodded.

“Allow me to attach this implant.” She reached across the desk and put a deft hand up by Josh’s left ear. Josh shied away.

“It’s just a comms device, Josh, so that I am always within call and always know where you are in the building. It’s easily removable.

“Just a clipon?”

“Subcutaneous – just burrows a few millimetres below the surface.”

Josh didn’t trust his new champion or her comms tech but he couldn’t see the point of arguing; he was in no position to put up a fight. There was a slight squirming and a momentary flash of pain.

“What exactly can your company offer me? Can you help me?”

“I can’t promise you any solutions right now. The first step is to have you assessed to see if any of our programmes would work for you.”

“You must already know enough about my condition. What kind of assessment? How long will it take?”

“Not more than 3 or 4 hours – at most half a working day of tests and analysis – and then we

might find that one of our programmes could benefit you.”

Joss wondered if the word “programmes” could be made to sound more sinister but he knew he had nothing to lose.

“Josh, what have you got to lose? Let us get through our procedures; I can at least promise you’ll be no worse off and we’ll know as much as there is to know about you and the disease. OK?”

Josh nodded.

“OK. Let’s get started. Just sign this –it’s just your agreement to undergo the tests.”

Josh hadn’t even bothered to read it – no need to worry about being shafted, he thought, when you were already truly fucked. The tests so far had been psychological rather than medical though the present one looked as if it might be both. He had been fitted with a cranial cap and electrodes had been rather painfully inserted under the skin above his ears and on the backs of his hands; his face was covered with a soft rubbery mask with a breathing tube resting lightly beneath his nose and he was wearing something rather like a wet suit or a very light and flexible space suit.

Now he felt himself being moved very smoothly, possibly upwards. He could feel the pressure of some kind of harness on his buttocks and back and a slight mechanical sound but then these sensations disappeared and he had no sense of the position of his body. There was no sound and no light, nothing but the faint pressure of the air tube on his upper lip. He seemed to be floating in empty darkness, as if weightless in space. After a while he tried moving. He was able to move his arms and legs but after a few centimetres some kind of pressure or resistance grew, slowing and stopping them. Whatever was causing the resistance wasn’t solid; it had no shape or texture and was evenly applied to the whole limb until it stopped moving. He tried to turn his body but couldn’t tell if he was succeeding; there seemed to be some resistance but he had no way of telling if he had altered the orientation of his body. There was no sense of up or down or any other direction. He realised that he was being subjected to sensory deprivation, with no warning or explanation of course. He felt terrified and disoriented enough without being suspended in a gel tank, he thought. He hoped it wasn’t going to last too long as he could feel panic rising and he knew that the sense of time was one of the first things to go in these conditions.

There was something behind him; the back of his head ached with the awareness of its hidden threat. In the blackness the threat assumed various vague forms – a huge weight descending, a dark piercing blade edging towards him, a giant hairy hand groping forwards – he felt himself physically flinch and stopped himself. This was absurd. He was allowing himself to invent unreal horrors in the darkness outside him when what he had reason to fear was within him. He even managed a grim smile at himself. This was a sensory deprivation experiment – who knew why it was thought necessary – but it wasn’t a horror movie. He had enough resilience left to stop inventing bogies in the dark.

He focused on his physical symptoms in the hope of keeping a grip on reality and reducing the psychological effects of the isolation. He did a careful, unemotional inventory of his body, starting with his feet and working upwards towards his head. This seemed to work. He was keeping the panic at bay and was no longer hallucinating unreal terrors, though the process was having its effect; he was beginning to see strange patterns and shadings in the darkness, which he kept telling himself were just the brain trying to impose form on the formless. At least the medication had dulled the nausea and headache.

He had no idea how long he had been in there – his internal clock had been confused enough to start with – when they got him out. Marta Winthrop was there, smiling away, telling him how well he had done and saying there was someone he should meet.

Now he found himself sitting opposite a holographic image of a casually dressed young man who had been explaining that his brain was embedded in some kind of resource management computer. Like most holographic images these days this one was impressively realistic but even so there was a hint of flare in the highlights and of course the body heat, odour, and pheromones were all missing. The idea of becoming something like this seemed so extraordinary and unlikely that he couldn't think about it. Thinking was becoming increasingly difficult anyway as the medication was now wearing off and he felt truly awful.

“Of course there was a long process of adjustment and development – I had to learn to see, hear and feel with the sensory inputs.”

The voice was almost supernaturally human, warm and charmingly inflected

“There was a period of psychological discomfort, even distress – a feeling of total isolation despite the drugs they were administering to counter it. Oddly enough a kind of internal reading was my first means of receiving any information from outside – digitally produced text whose matrix was then processed to produce visually recognisable characters for the optical centre of my brain for “reading” - clumsy and peculiar but a huge relief. It was my first awareness of my new senses.”

Josh could feel the pain edging its way towards unbearable and a wave of nausea but he managed “So there was/is some sensory deprivation.. effect?”

“Not the severe disorientation and paranoia produced by the tank but anxiety and confusion, yes. I had to learn to use my new senses and at first the strangeness, the difficulties of perception and the isolation were very disturbing. In many ways my present senses are considerably extended but there is a lack of immediacy and ownership; these senses didn't grow with my brain and my identity, didn't grow at all. This makes learning to use them much harder and at times..”

A movement to his left distracted him. A stream of letters was appearing ticker tape style on a small wall monitor, flashing on and off, ‘GET OUT - FIRE DOOR ON LEFT - MICAH - ALTERNATIVE BIOTICS’. It disappeared immediately.

“I feel they’re malfunctioning or out of control when they're certainly not – but it's getting easier all the time.”

Josh felt himself sagging in the chair and couldn't prevent a groan as he struggled to sit up.

“Ah, I see you need urgent medical attention. I'll alert them but I think it'll be best if you make your own way, if you can. Just go out into the corridor and turn right.”

Only too human

She calculated she had been in the module for nearly 300 hours.

The only event so far was a non-event, but a disturbing one: Aleksi had missed his last scheduled call. There had been no response when she had repeatedly used the acoustic tube to send a signal to him, which was the only action her standing orders allowed. She wanted very much to believe it was just human error but he didn't make human errors, at least where duty was concerned.

He was now three hours late. Her own sleep period was almost due and she realised that the missed call meant she had been out of contact with all of them for 9 hours. This was definitely worrying. The regular check-in round was now due.

The contact whistle sounded. It was Aleksi.

"Hi Caz. Checking in. How's the illusory nature of reality over there?"

"It'd be better if you kept to the schedule. You missed the last call and you're three hours late. Where does this call fit into your schedule? What's going on?"

"Caz, I realise that and I'm sorry. I've just woken up after nearly sixteen blissful hours of deep, deep sleep – I must have forgotten to take one of the follow-up wake-up pills."

"Aleksi we are under combat regulations; missing a scheduled call is a serious offence. Why didn't one of the others wake you?"

"I and Allans would normally be in hiber state; I think we're both still affected by the sleepies - he's still out I think. As for Mallinson – I don't know – he must have assumed I'd made the call. He's been preoccupied with persuading the computer to give some information on the incoming signal that triggered the alert. No luck so far. Does it matter? No harm done.

"You know I have to observe and record any anomalies, any behavioural changes and my record will be compared with the ship's. I can't protect you if you can't even keep to the schedule."

“OK! You are right, of course. I'll make sure I take the pills. Otherwise everything over here is just the usual social and intellectual whirl.”

She was too angry to find him funny. He had put her in an impossible position. "I must get on with the rest of the check-in calls," she said and broke the seal with a whump of air into vacuum.

Allans was next; he seemed wide awake despite what Aleksi had said "Hi Caz. Are you OK over there?"

"I'm OK thank you but what's up with Aleksi? He missed the end of watch call."

There was a pause. "He must have slept through the signal, Caz. He went off to his quarters really early and only recently reappeared."

"He's not allowed to sleep through the call. I'm supposed to take action on any deviant behaviour."

"Must be stress and hiber hangover, I imagine. These alerts are exhausting, even if nothing ever happens. We are all under strain – especially you, Caz, isolated over there." There was a note of personal concern in his voice.

"Aleksi has made sure my circumstances are even more stressful. I've never known him unprofessional in any way before. It amounts to being asleep on duty! I will have to record this, if only to protect the rest of us." She sounded waspish and vindictive to herself.

"It'll be recorded anyway." said Allans. "I'm sorry, Caz, that it's put you in such a difficult position. I agree it isn't like the Aleksi we've known. Let's hope this alert is over very soon for all our sakes, but particularly yours.

Caz unplugged. Her check-in with Mallinson was routine; he had nothing to say about Aleksi's default, claiming he hadn't even noticed him coming on duty late. As she was about to break off the connection though, he said:

"Caz, I hope you are surviving in that little prison of yours. Isolation does bad things to people. Keep talking to us, OK?" She was surprised at this concern from Mallinson who was usually too wrapped up in some problem to notice other people.

She was left with four hours of tedium and discomfort in which to reflect on things – before the next call, which should come from Allans.

Alternative Biotics

A few metres down the corridor he saw the side door on his left, marked FIRE EXIT. ALARMED. He pushed through the heavy metal door with the last of his strength into dazzling sun. Pain exploded in his head and he staggered, half fell, but dragged himself upright, one hand on the rough bricks of the wall. He was outside, in a narrow side street, opposite a small coffee shop. He turned to the door to re-enter but it presented a featureless expanse of red metal. He tried to open it but it was utterly unyielding. A voice behind him said "Are you sure you want to go back in there?"

It came from a short, bald, stocky man wearing a heavy brown sweater covered in a pattern of pink swirls. "You don't look too good." he continued. "We could sit just across the street at a cafe

table till you feel better – talk a bit.”

Josh allowed himself to be led, supported at the elbow, and sank into a chair. He felt appallingly ill but was pretty sure he didn’t want to go back; whatever instinct made him push through the door was still strong.

“Who are you?” he croaked.

“Bryn, Alternative Biotics. We know the outlines of your case from the poor human remnant they have wired up in there.. and a great load of stuff about Universal Synthetics. We can offer you a good chance of a cure,” he leaned forward, “but you need to make a decision now.”

Josh felt very tired indeed and unbelievably tired of being told how urgent his case was.

“You've practically kidnapped me. I'm not interested in what you have to say.”

His kidnapper smiled. “Oh come on – you're free to walk round the corner and back through the Company's front door – if you can make it that far. Don't you wonder how we were able to send you a message past all their security? That ‘adapted personality’ helped us; he's so unhappy he'd do anything to get back at them, but also to warn you off.”

“He didn't seem to feel that way.”

“Of course not – privacy of thought or speech isn’t available to him. The message had to be disguised as an input from a company operator with a historical time stamp.”

Josh didn't quite follow this; he felt a rising tide of darkness and clutched at the edge of the table.

His companion leant forward. “Looks as if they've given you just enough meds to keep you alive; they want you on the edge of panic. I can offer you a strong chance of a cure but I'll have to put you under heavy sedation. That will slow the damage while we travel.. Drink this before you collapse – and then come with me.”

“Cure - cure me? For free – why should you...how?” Josh struggled to get the words past the swollen block of his tongue.

“You’ll be useful to us. Don't worry about that. Last chance saloon. What have you got to lose?”

Josh wished people would stop asking him that – but was aware he was about to fall off his chair into oblivion.

“Just say OK and drink!” said Micah sharply. “Now!”

He mumbled something and drank; he thought he saw a taxi draw up beside them, then the street rapidly darkened and the surface of the table and the ground surged upwards..

Deep Shelter

He woke and tensed in panicky expectation of pain, screwing his eyes shut. Nothing happened. He waited. Still no pain. His body started to celebrate, every part sending signals of amazed well-being to central command.

His mind was more cautious, knowing it had to be a trick. Some quirk of his ruined nervous system, he thought, must be protecting him from pain and misery. He steeled himself against their arrival, but again nothing happened and he began to hope despite himself.

He was looking at a low domed white ceiling. Very cautiously he sat up, prepared for violent protest from body and mind. The room was very small and walls and ceiling were also white and quite sharply curved. There were no windows, just a plain door set into one wall with a button beside it. The air smelt a little of dust and plastic. He was on a narrow but comfortable bed; there were no tubes or monitors.

As he sat there, a great certainty that he was cured possessed him; it was as if every bodily system had been quietly and authoritatively pronounced fit by God. There was a startling sense of freshness too, as if seeing, hearing, smelling and touching were newly found delights. He laughed, flung aside the duvet, swung his legs off the bed, strode across the floor and pressed the button. There was a click and a voice said "Ah, you're back with us at last. Just a sec and somebody'll be with you. The door is open."

He pushed through it and almost collided with his rescuer/abductor Bryn.

"Follow me!" said Bryn, turning abruptly and heading along a short corridor.

They turned into a much larger space with the same white curves and lack of windows. An older, larger man was sitting at a black metal desk. He stood up and smiled.

"Extremely glad to see you up and about. I'm Jim and you've already run into Bryn. How are you feeling? You look very well?"

"Where the hell am I? What is this place?" he said aggressively, hiding an urge to hug them both.

"A deep nuclear shelter, sort of belonging to the United Nations, though officially they don't know we are here."

"I've been kidnapped and drugged, even if I have to admit to feeling unbelievably well - miraculously well, in fact. What on earth is going on? How long have I been here?"

"Nearly three days - longer than average - very deeply unconscious." said Bryn.

Josh looked at him. "Three days ! What kind of sedative did you give me?"

"Powerful enough, medical coma stuff, but that wore off in less than 24 hours."

"So what are we doing down in a nuclear shelter? And how did you find me?"

"OK, I'll answer as well as I can." said Jim. "Bryn got a tip-off from the wretched symbiont they use for recruiting purposes at Universal Synthetics that you were being prepped for transplant. We have someone like Bryn in one or two of the largest cities but there aren't many of us.. We're down here because the process only happens here and only when one of the 'cured' is present."

Josh put a hand on his forehead and squeezed his eyes shut for a moment. "Wait a minute -- what process? What are you talking about?"

"The process that has miraculously stopped the prion infection in its tracks and even more miraculously reversed its effects and rebuilt much of your nervous system in three days." said Bryn.

There was a pause as Josh took this in. Jim waved at a chair beside the desk and sat down himself. Josh sat.

"But why does it only happen here – underground?"

"We don't know – haven't got a clue. It's totally weird." said Jim. "I'm afraid we know very little about how any of it works. We don't even know whether it's permanent. All of us feel that it is and also that it's entirely benign, that it is no threat. The problem is we all recovered from such terrifying situations that we don't want to question the process or how we have been altered."

"What do you mean by altered?"

"Well, it's an unknown powerful agency working inside you – and is it just a miraculous cure?" said Bryn. "Do you sense any other changes?"

"It's probably too early for that, Bryn." said Jim. "The change in physical condition is so overwhelming at first."

Josh thought for a moment. "The certainty I have that I am cured is oddly absolute, beyond question – and I feel unusually er – optimistic."

Bryn looked at Jim, who nodded. "That sounds familiar. Anything else different?"

"My past life, particularly my work, seems remote, disconnected from me. I couldn't go back to it, especially my job trying to disguise the loss of control over the resistant diseases."

"You feel guilty?" asked Jim.

"It was pointless, part of a pointless system.

"Well, we're all parts of the system, or were – in my case an even more sinister one. It's not a surprise to us that you are oddly calm and clear-headed despite everything; that's the change we were talking about – self-destructive emotions seem absent. Even your protests to us have been fairly token and you seem pretty much in confident control of yourself.

Josh took a moment to take stock. "Yes," he said finally, "and that should seem a bit weird, but it doesn't – even though my world has disintegrated and the last thing I was aware of was pain, physical collapse and terror of death – but you haven't explained. What were you doing in a deep underground shelter in the first place?"

"Hiding."

"Who from?"

"Northern military, I'm afraid – they see us as a security threat."

"Why? How is any of this connected to them? They're very bad enemies to have."

"Very, and sooner or later they will find us. Every time we bring somebody in, the risk grows. You and Bryn may have been followed; Universal Synthetics will certainly have put out the word. Talking of which, Bryn, you need to go; he only stayed on because he felt he owed you an explanation and a bit of continuity, however odd."

"I need to go back to work and explain my absence. No hard feelings, I hope," said Bryn. "I like to get positive feedback from my kidnap victims."

Josh hesitated for a moment. "I'm alive and I'm apparently cured – as you promised. I think I owe you my life, near as anyway."

"Well, I was just the agent for Jim's organisation; a big risk was taken by that poor embedded brain but most is down to the creepy but wonderful process we've all been through. Anyway you were a pleasure to drug and abduct."

Bryn reached across and shook hands. "I'll be careful," he said to Jim. "I'll join the evening shift of the road repair crew up there. Let's hope they don't have an agent in the crew itself."

Bryn picked up a small holdall from behind the desk and walked out into the corridor. Jim raised a hand.

The mention of Universal Synthetics had jogged Josh's memory. "What about the implant they gave me? Is that traceable?"

"Don't worry – very limited range. We didn't even bother to remove it. If they do find us, we have at least one powerful ally and an escape plan – of a rather desperate nature."

"But how can you – we – be a threat to Northern? What on earth do they..." He broke off.

A vivid, all-consuming sense of threat from above, of something reaching down from the surface, extending electronic feelers twisting and searching, now locked on to them all.

"There's something coming down - locked on to us, I'm sure of it." Josh scarcely recognised his own voice, hoarse with urgency.

"What? Calm down!!!" Jim stared at him. "We do have a warning system. Any unexplained

movement.....”

He looked closely at the screen on the wall.

"Uh oh, the upper shaft monitor appears to be frozen – no change of light – no sign of any movement, no insects, birds, dust, nothing. and the light looks odd.”

He turned back to the laptop on the desk. “Let me run it back a bit – I think frozen still – ah, there's movement, about three minutes ago. The system's been nobbled - somebody’s definitely found us.”

Jim turned back to him.

"Well, you are an interesting case. That new-found calm and confidence we boast about having is going to be tested. We are going to have to run for it – we’ve made unusual escape preparations.”

He pulled a lever on the wall and Josh heard bells, real mechanical bells, somewhere inside the complex. Jim blew three enormous blasts on a whistle he produced from a pocket.

“No power outside the shaft,” explained Jim.

A man and a woman came running from different directions out of the corridor. They ran straight into a large alcove that had opened in the wall behind the desk, and started struggling into strange hooded rubbery oversuits.

“Get in the lift and put this on.” He was handed a packaged-up suit. “It provides some protection against the pressure changes. Strap yourself to the rail.”

.....

USTC

Far from being over quickly, the emergency had gone on and on, drill or not. A few duty tours after Aleksis's missed call, her screen had come to life with a disturbing message from the ship's computer, for her eyes only.

"WARNING incursive signal of unknown origin.. Significant probability of remote recruitment or other hostile action. Analysis continues. Maintain isolation precautions and emergency command structure."

Her orders were to assume the worst. She didn't want to think about the action she would have to take against the crew if the situation remained as it was, with no all-clear from the ship. Could it really be happening, what she had been trained to deal with? Had the crew been taken over, 'recruited', by some extraordinary psychological weapon?

She had now been nearly 400 hours in isolation in the module. No-one now had the authority to cancel the alert. Allans no longer had senior officer command powers and she couldn't end the

emergency despite her command status; that was up to the ship's threat recognition algorithms or to Command itself.

There had been no further problems with the check-in calls but she had been so rattled by that missed call of Aleksi' and conscious of her own position as LACC officer that she had been keeping contact to little more than passwords and status reports. She hadn't mentioned the computer's warning of course, but they must have realised something was up from her behaviour. Recently every one of them had expressed concern about the effect of the isolation on her. They were right to be worried; she was finding the capsule nightmarishly claustrophobic and she wasn't sleeping much, but she suspected their concern was more for themselves.

To pass the time she had only the digest of logs from previous missions, the official regulations, the mission records of the space service, the exercise harness and the very limited observation facilities. She found herself looking forward too eagerly to each call and then struggled to find anything normal to say, as she listened for the slightest abnormal signs in any of them. She was desperate to close the connection as soon as it was open, weighed down by her dread of the nightmare becoming real.

The time for her check-in round was a few minutes away; she found herself counting down. The timer signal came at last.

"Hi, Caz, how are you holding out over there, still sane?" said Aleksi, sounding both concerned and uncharacteristically unsure of himself.

"I'm fine."

"Sure Caz, of course, but it must be getting to you. We've all had enough of this alert and what it is doing to us, especially to you. The capsule wasn't meant to be used for more than a day or two. Command can't want to drive its LACC officers bonkers. I'm sure we could cover for you if you came out now – medical emergency, for example."

"What? So Command can have me committed and then 'rehabilitated'? Thanks for the concern but I think I'll try just carrying out orders."

"Caz, give it serious thought – please! I am quite sure there's been a fuck-up. Apart from anything else we are using up resources, extra oxygen and food, since we can't go into hiber state. I know you're not supposed to move from there until the drill is over but I'm not getting any response on this from the ship's computer. Something's gone wrong – we all think the same – you need to get back here so we can sort it out together. You must be half dead from boredom, isolation and lack of sleep anyway. We're worried about you, Caz. You can't stay there forever."

"You're trying to persuade me to get myself court-martialled and re-educated. The ship's computer is bound to ignore requests for information - that's part of the emergency protocol." She broke the connection.

A sympathetic, rule-bending, emotional Aleksi? What had happened to the sardonic, mock-flirtatious officer with the centre of arctic ice; surely he must know that she couldn't take the risk of breaking orders. His theory that the pre-programmed drill had malfunctioned was possible, but it was exactly the story a hostile would use to wrinkle her out of isolation.

Next on the call list was Allans, who surely wouldn't question orders or suggest breaking protocol. She wished his senior status meant he had information about the alert but she knew he wouldn't.

They had got through the password exchange and systems report when she decided she might as well ask the obvious.

"What is the emergency?"

"Sorry Caz, no idea. I did question the computer as far as allowed but I learned nothing of interest. It was central system initiated with no description attached; I'd suggest that's a device to get us to think it's not a drill – but they've all been preprogrammed drills or else false alarms, so far. How are you holding out in isolation? You OK?"

"I was trained for this. I'm fine. I keep myself busy - and fit."

"This isn't right – it must be a malfunction. It should have been over ages ago. We are wasting resources and there's no point you going stir crazy for the sake of a computer glitch. We could all agree to cover for you if you come out now. Command can't expect you to stay there until you become mentally deranged. I am responsible both for your welfare and your value to Command as an asset."

A part of her coldly noted another crew member urging her to leave her post.

."Not under the emergency. I'm responsible now." As you very well know, she thought.

"Yes, I know that's the standing orders version but I still feel responsible. Seriously, you should come out. Everything can be arranged. We're all prepared to stand by you. We'll organize things with the records etc."

"You know that's not possible. They would find out; there'll be monitoring systems we don't know about. Anyway, you're trying to persuade me to disobey orders. We're officially in a combat state – that's conspiracy to mutiny while under attack, a capital offence, as you know.

"You can't believe we're under any kind of attack. The ship would be changing course, accelerating hard and we'd be at battle stations. As for Command finding out, we are so far from everyone and everywhere; when will we be under direct Command again? We have no way of knowing what we will be facing us when we arrive or even if we will survive it."

"Sorry, but I've no more to say to you. I have to move on to the next call."

"Well, it's up to you, Caz. The offer remains open," he said quietly.

As she pressed the key for Mallinson, Aleksi and Allans' repeated invitations to abandon her isolation post were repeating in her head, mentally shouting at her, making her desperately alarmed but also angry. Allans of all of them should have felt most responsible for keeping them out of trouble and in line with orders and protocol. She knew Command would say that she had already had enough evidence to start the counter measures, but she'd at least go through normal procedures with Mallinson first.

He was as clipped and efficient as ever in the password and system protocols but then:

"Caz, everything about this suggests a drill gone wrong to me. Why don't you cook your logs a little and come out early? Nobody will know. We'd all cover for you. Think about it. We can't go on forever like machines with these pointless, endless drills. How long have you been in there now? 12 days, isn't it? You must be near to screaming. It's just absurd. Come out and we'll all work together to find out what's gone wrong. We'll keep a common record for Command."

"I don't know, David. It's a terrible risk. If the alert continues, I'll give it serious consideration at least," she lied desperately. "I'll get my records up to date and we can talk at the next check." She closed the tube before he could reply.

She needed to act quickly. Mallinson, who had always been the most obsessively pedantic about regulations and orders, offering to team up with the others to cover for her breaking emergency regulations! All three of them trying to persuade her to come out of the capsule for the same reasons, almost in the same words, was conclusive enough. Her training told her this was as certain as she could ever be about recruitment, not to hesitate. What she had secretly never totally believed in had actually happened. They had teamed up to get her out of the isolation module.

'Were they literally of one mind?' she wondered. 'How could just a signal have changed them?' but she knew Command's theory about post-hypnotic commands embedded by a sleeper enemy agent during deep training. She couldn't question it now. She had to carry out the counter-measures. This was the whole point of her being isolated in this extreme manner.. She had to "neutralise" the risk to the mission, to assume her fellow crew members' loyalties and priorities had been reprogrammed through their neural implants. So, first line of defence, the stand-down procedure.

Slitting the skin on her forearm pouch with a nail she withdrew the tiny implant and breathed on it; it flowered into a fan-like spread of leaves, one for each crew member, except for the first one, which read

USTC – THIS WILL TEMPORARILY DISABLE CREW TARGETED.

CARRY OUT THE INSTRUCTIONS EXACTLY! IF THERE IS A DELAY, WAIT FOR THE RESPONSE OR PROMPT BEFORE CONTINUING!

1. ENTER 'USTC ACTIVATION PROCEDURE' at the console

2. At the prompt 'Officer authorisation' enter your personal LACC code as memorised in training and THEN position both eyes against the retinal scanner apertures.
3. At the prompt 'Your location?' Enter either 'capsule' or 'main body' according to where YOU are.
4. At the prompt 'Target(s)' Enter the name, service number and personal code (on the personal leaf) of each crew member to be incapacitated in that order, NAME, SERVICE NUMBER, PERSONAL CODE, with a double return at the end of each personal entry.
5. The computer will re-list the crew members and service numbers without the codes. At the prompt 'Complete?' Enter 'YES' in caps.
6. At the prompt '**Proceed?**' enter your authorisation code and press RETURN.

WARNING! THE COMPUTER WILL NOT ASK FOR FURTHER CONFIRMATION. ENTERING THE AUTHORISATION CODE WILL **IMMEDIATELY** CAUSE THE SIGNAL TO BE SENT. ALL TARGETED CREW WILL BE DEACTIVATED.

Do not try to use this protocol serially. All targets must be entered separately before ONE TIME authorisation. No later additions can be made.

Crew members should subsequently be conscious enough to avoid injuring themselves and follow simple instruction but unable to initiate action. This state should last until their reactivation code spoken by you but at least for several hours if that fails.

Misuse of this protocol may, in certain circumstances, be treated as an act of treason and incur the severest penalties.

She started reading the instructions again and then realised she was doing exactly what her training had warned her against. She entered the initiation sequence on the keyboard. She was attacked by a sense of horror and disbelief at what she was about to do, but she forced her mind back to what would happen to her if she did not carry out the orders.

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Up, down, up and away

The lift accelerated rapidly for longer than usual, then the feeling of extra weight wore off and the vibration was reduced to a faint tremor.

'Scarcely needs the protective suit, just an express lift – so far,' he thought. He looked around. Strapped to the rail next to him was the woman who had run in ahead of him; she seemed quite calm. He was about to ask her name when he felt the floating sensation of rapid deceleration; it continued for several seconds until they came to a jolting stop. There was a pause. Jim Carey talked rapidly on his handheld. There was a series of minor jolts and loud bangs and the doors

opened onto a narrow walkway leading straight into a shiny rectangular container slightly smaller than the lift. It was swaying slightly; confused, Josh looked up and saw it was suspended from a cable – some kind of funicular or large ski lift.

“Fast as you can. Inside, grab a handhold and hang on!” shouted Jim. As he hurried across the two metres of platform between the lift and the new chamber, he caught a glimpse of a wall of rock and a dark swathe of pine forest far below. He found himself standing next to the same woman, holding on to a sort of metal stanchion with a hole in it.

The chamber rocked a little, jerked and then accelerated rapidly downwards. A few seconds later there were very loud bangs from below and behind them. Something struck the outside with a deafening clang.

“Lie down!” yelled Jim. “The lunatics are firing at us”.

Josh and the others didn’t need telling. The floor was extremely hard, metal with narrow wooden ridges. More shots followed as the vehicle plunged downwards but nothing hit them. After what seemed an age but was probably no more than a minute or so there was a rapid deceleration, followed by several loud double clicks and a final thump.

“Everyone out quickly, before they find us again,” said Jim. “We should be able to board immediately.”

When Josh ran out he saw they were not on the ground but moored at a platform many metres up in the air attached to a massive tower of metal scaffolding. He looked down; a sheer drop to the ground perhaps a hundred metres below. When he looked up the tower seemed to go on forever, tapering with distance until it disappeared into the cloud cover. There was a closed door with the UN logo on it a couple of meters across the platform. As the other two rushed out behind him there was a click and it slid open sideways revealing a large, bare, rectangular metal chamber. As they dashed in they heard the roaring beat of a helicopter flying at low altitude towards them; the door immediately slid to behind them.

“Well whoever is on duty here has let us into the freight container. We are now an unscheduled ISS freight delivery via this low altitude space lift and its companion shuttle. I'm sorry it's spartan but it wasn't designed for humans. They have at least added an air supply. This stage should last under 10 minutes. Let’s hope they get on with it,” said Jim.

At that moment a stentorian voice came from outside. “Come out now! You are making unauthorised use of a UN facility. You are also wanted for questioning concerning theft of experimental Northern technology. Failure to comply will be met with armed force.”

“I don’t believe they have orders to open fire or smash their way in, not dealing with a UN ISS facility” said Jim.

“They’ll certainly try to convince the operator to cancel the operation and open the door,

though,” said the woman from behind him. “Do you know who it is?”

“Certainly not,” said Jim. “And there will be no record of them being here, either. They’ll have preprogrammed our entry and departure and are probably long gone themselves.

There was an excited hubbub of shouting from outside but no shots or explosions. Then Josh realised he was experiencing the increasing weight of upward acceleration in his neck, back and legs; it had been so smooth he wasn’t sure when it started. The pressure continued to build, making it gradually harder to breathe. Nobody spoke.

Five minutes later, before the pressure became really painful, they were decelerating again, finally coming to a gentle stop with a deep clunk of high momentum contact. A series of mysterious vibrations started and an electronic whine came from outside. Despite the halt he still felt as if he was about to float off the floor.

“The shuttle is docked here, waiting for us,” said Jim. “We transfer now. Watch out for the air current – atmospheric pressure will equalise very vigorously. Move fast but stay on your feet.”

The woman next to him started to run, stumbled, grabbed a wall stanchion and just managed to right herself; she turned towards him.

“Watch your balance!” she said ruefully. “Hold on to things as you go.”

She demonstrated, looking back at him to make sure he understood as she worked her way along the wall towards the doors. He imitated her carefully but found his movements clumsy and hard to control and was the last to arrive at the door.

There was a sucking sound and it swung open, revealing nothing but darkness. A gale roared behind him and he was carried forward in a rush with the others, through the door and out into blackness. He lost his footing and bounced off a hard rubbery surface. A faint click and there was a blaze of light.

“I suggest everyone stays where they are, holding onto something. Separation from the platform is under way.” called Jim.

Josh looked round and saw the floor had a series of fairly narrow channels or troughs running across it with handholds at intervals along the base. He sat down and managed to reach one. A series of hammer blows against the outside and a violent lurch sideways had him holding on tightly with both hands. A tremor started through the floor, shaking the whole ship.

“If you twist a handhold clockwise a harness will be released and the section of floor on either side will re-form into a couch-like depression. There are instructions on the side of the handholds. The main engine will fire as soon as you are strapped into these acceleration couches. We should reach low orbit in less than 15 minutes.” Jim’s voice was deliberately calm.

The ‘couch’ that formed was little more than a shallow depression in the floor but it was

surprisingly well contoured and comfortable. The harness reached across the couch, anchored in the channels on each side. It had webbing that covered his feet and abdomen, forcing him to lie flat.

The vibration stopped, there was a silent pause and then the whole structure shook and rattled while from below came a deep, shattering concussion; he was pressed down into the curve of the couch, which gave slightly. He forced himself to breathe deeply and regularly.

“Main thruster acceleration for a further 355 seconds” came an amplified voice from somewhere. The sensation of weight grew rapidly and breathing became a struggle.. He tried to count the six minutes down but got muddled around two hundred seconds. Then the pressure was gone and he realised his body had lost contact with the couch; he was swaying in the harness just above the floor. He felt nauseous and helpless, drifting back and forth in the air. He saw the other man, above or next to him, adjust the harness to give himself more slack and then stand, though he also left the floor and had to pull himself back down. Josh struggled with the straps and managed to loosen them; trying to get up was chaotic at first – he found himself flying towards the wall and then jerked back by the harness; by experimenting with careful, gentle movements he managed to rock himself into a precarious standing position.

"Everybody alright?" called Carey from a control panel on the far wall. "Things should be fairly quiet for a while. The Shuttle is programmed to adjust its orbit to match that of the ISS. Final docking will be managed by the ISS; they will be aware of our unscheduled approach but I must make sure our computers are talking.

Josh turned himself carefully towards the woman, who was at the next handhold.

“Hi,” he said. “I'm Josh. Can you tell me what's going on and how this is possible?”

She nodded.

“I'm Beth. I'll tell you what Jim told me. The whole shelter complex used to belong to a Swiss billionaire terrified of dying of one of the plagues. He bought a link to this space lift, part of the Italian space programme – he had some crazy idea of building his own space refuge in orbit or on the moon but he died from something unrelated. Then the Italian space programme was taken over by the UN - who don't, officially at least, know we are here.”

“Did we really escape in a ski gondola?”

Beth shrugged and spread her hands wide. “I know, you couldn't make it up. It is a ski area, but they're not usually linked to space lifts.”

"Were those Northern forces attacking us?"

"Certainly on Northern's payroll, I should say; they're still pursuing us as enemy agents, part of their so-called 'remote recruitment' problem. "

"What do you mean? I recovered, miraculously, from a prion disease; I don't understand how but it's got nothing to do with Northern or space."

"I agree – including the not understanding bit. Sorry!"

"Thanks for the background anyway."

"You're welcome. That's Adrian behind you – he's been around a bit longer than me."

Josh managed to turn slightly and saw a scholarly, narrow face a few inches from his own. It nodded at him.

"You seem to have brought the whirlwind with you," said Adrian. "Let's hope Jim is right and things will be quieter now."

"I'm still trying to catch my breath," said Josh. "What on earth are we going to do on the ISS? Why there?"

It was Beth who answered. "I think the idea is that it's safe from Northern, one of very few places still firmly under UN control. The political consequences of any kind of interference with it would be devastating."

"But how are the ISS staff going to react to our arrival?"

"Good question. We'll soon find out," said Adrian.

The conversation lagged after that. Josh found himself trying to visualise, to get his head round the chaotic chain of events, the lift to the mountainside platform, the swaying ride down to the freight space elevator, the violent engagement with the shuttle, its explosive blast off and now their slow curve through the edge of space towards the station. His space visualisations, based entirely on news images, were probably far from realistic. He allowed his mind to drift further back, to the underground enclave and the death terrors before that. They felt safely distant; he didn't mind a wild and dangerous present as long as the memories stayed that way; at least he had a future and it promised to be interesting.

He was trying to imagine living on the space station, when he felt the shock of imminent threat again but this time tearing through space towards him, towards all of them, They were about to be obliterated, smashed to bits. He raised his arms in an instinctive protective movement, thrust his hands forwards to ward it off; heat and light and pain exploded in his head, as if the inside of his head was being repeatedly blasted by internal lightning bolts; in normal gravity he would have collapsed. Then the huge thing had swept by, missing, the threat gone. Relief flooded through him; he lowered his arms, stood up and opened his eyes. He was limp and trembling. No-one seemed aware of any threat; if anyone had noticed his odd behaviour he hoped they would put it down to just the physical stress and disorientation of the flight – but then he turned and saw Carey watching him.

"Are you OK? You looked as if you thought something was going to knock you down," he said.

"Sorry, yes, I thought something was going to hit us, another warning – a weird sensation, like being attacked from inside and outside, but it just went away. Maybe just stress and panic."

Jim didn't look at all convinced by this but he moved back towards the control area.

Panicky hallucinating would be quite excusable he felt after what had happened to him recently, but he was sure it was a real threat they had somehow avoided. He could feel a steady vibration from the shuttle, and perhaps a slight return of weight. He was bewildered by what was going on inside him but he knew it wasn't a danger to him, despite the pain and its overpowering effect. He took several deep breaths and started to calm down a little. The shuttle continued to vibrate quietly.

Follow my leader

Caz peered through the thick plazglass of the sealed airlock inner door that would allow her back into the main body of the ship. She could see very little; there was no movement within the narrow range of her vision, just the usual row of spacesuits lining the walls of the air lock ante-chamber, but that didn't really tell her anything. She was wearing a light space suit herself to cross the 200 metres of vacuum between the central module and the main ring of the ship; she was supposed to continue wearing it; if she had evidence of purposeful activity within, her orders were to close down life support and vent the atmosphere, killing her own crew.

In its emergency configuration during crew recovery, the ship was receiving no external data whatsoever and blazing out noise on every frequency available from wavelengths as long as it could generate down to gamma rays. It was also generating a Meissner effect enfolding the whole life-support section, which meant maintaining temperature differences of about 50K between the outer shell of the crew quarters and the hull. It couldn't manage much else while running these emergency functions.

Her hand hovered over the door control panel. She realised she was terrified – of what she might have done to them, of what they might have become, of one of them creeping up behind her as she looked for them – but perhaps most of all of what she might have to do to them.

It was in any case a calculated risk being outside her module; even under emergency counter measures the ship was nowhere near so well protected, but the only alternative to the recovery and incarceration of recruited crew was 'neutralising' them. She also knew Command would take the loss of three highly trained officers very badly, that her actions would come under severe examination and they would be keen to shift the blame. She would be facing an enquiry just for using the protocol, whatever the end result.

She pressed her palm against the panel and moved cautiously through the slowly opening door and headed for the nearest manned station, Navigation, just a few steps up the right gangway and

no larger than a built-in wardrobe. She could see the main console, without power now, just black, as soon as she entered the gangway. She saw Aleksi a moment later, sitting in his usual position, side on to the console, but his arms were motionless by his sides and his chin was sunk towards his chest. She went in, slowly and silently she hoped, and stooped to examine him more closely, half expecting him to explode back into life; he appeared to be breathing normally but he was unusually pale and slack-featured; without expression or intelligence his face was grotesque and scarcely recognisable.

The implants she had wirelessly triggered administered a neural shock and released a chemical cocktail, leaving the crew in a paradoxical state between sleep and waking, responsive to her commands but incapable of initiating action of any kind, for long enough for her to confine them to a secure area, in theory at least. Their deep programming was supposed to leave them subject to direct commands from her even after recovery from the drugs, but the recruitment attack might well have sabotaged that.

The stand-down procedure seemed to have worked as expected, which wasn't always the case apparently. She had heard some horrible rumours about that.

She walked silently on up the gangway, pausing to listen every few paces. There was a T junction about three metres ahead so she could see nothing until she was almost at the bulkhead forming the far wall of the junction, but there was no sound or disturbance of the air, just the background hum of the recycler. At the end she could see straight into the Comms station on the left and somebody's feet, sideways on the floor, presumably Mallinson's, across the entrance to the section. She moved forward warily but as his body came into view she relaxed a little; it was obvious he wasn't going to be doing anything for a while. He must have been standing when the protocol disabled him; it looked as if he had hit his head on the way down to the floor, possibly on the edge of the worktop. There was an angry red weal on his forehead and a little blood oozing from a cut near the centre of it but it didn't look too deep. He was lying turned slightly to one side with one arm underneath him.

She braced herself for the unpleasant task of moving his inert form into a more comfortable position, managed to turn him onto his back by heaving at his shoulders and buttocks together, releasing the trapped arm, the hand of which twitched slightly when freed, causing her a moment of panic. She stood and breathed for a few moments. Then she went to find Allans.

He was probably at one of the remaining command terminals situated around the communal spaces of the craft. She had done a tour of most of the ship and was shaking with tension when she found him, nearly five minutes later. He seemed to be in better shape than Mallinson, though he had also fallen. He must have been at a console in the mess, since his access card was on the ledge below it, but he had apparently got up to get himself a snack or a drink and had fallen gracefully onto the soft tile floor, feet near the console, head towards the dispenser.

She decided there was no immediate threat from or to any of them and with relief took the time

to extricate herself from the suit, which was hot and uncomfortably clingy, even without the helmet.

Now she was faced with stage 2, isolation and incarceration. She decided she might as well start where she was, with Allans. Her voice shook a little.

“Allans 741357J on call now.” She sounded to herself like a nervous, novice magician but Allans' eyes opened and a more focused expression gradually replaced the disturbing vacancy. “Stand!” she said and he started to struggle to his feet; she helped him up, which he allowed without reaction, ending up motionless, facing away from her towards the dispenser. Now she had to shepherd him into the small area of living quarters on the outer wall of the ship that Command had modified to be used as a secure holding facility for just this situation.

“Follow! Two paces distant.” she said, rather more confidently, and walked slowly back towards the main gangway. She looked back over her shoulder; he was following, catching up because she had slowed when she looked back. She lengthened her stride, very conscious of how close he was behind her; his shadow overtook her as he passed each of the corridor lights, darkening the corridor in front of her. In this bizarre and nerve-jangling procession, contracting as she slowed to check on his position and lengthening as she hurried to keep the distance between them, they made their way aft towards the confinement area. The doors to the section were open so she just walked in ahead of him and told him to lie down. There was no need to change the level of his programming until the others were safely tucked away.

She had no physical difficulty with Aleks, but the dreamlike horror of their situation as he stood blank-faced in response to her command made her stop, breathing rapidly, for several seconds. Then, as she led him through the ship in walking corpse mode, she felt a disturbing urge to giggle.

When she got to Mallinson he didn't respond to the code sequence. She bent to examine him more closely. His breathing was regular and slow, not laboured or noisy. He was rather pale and chill to the touch but the others had been the same. The contusion on his forehead didn't look too bad but with head injuries that didn't always mean very much. She was not confident that she could coordinate the other two's restricted actions well enough to get them to carry him to the secure area or that they had the range of understanding of orders to make it worth attempting; she could lock him up where he was but that left problems of how he was to survive long term. She realised she would have to pull or drag him herself and he would not be helping; he was a large man, solid and around 6 foot.

She was running out of energy by the time she had got him clear of Comms, a distance of only 2 or 3 metres; it had taken her several minutes, pulling from under the shoulders, forced to stop to free an arm or a foot from an obstruction or just from a dangerous position under the body every few moments; the floor surface was designed to be mildly abrasive for safety, useful in low or zero gravity. She stopped pulling and let her head clear for a moment. Ideally she needed some

kind of trolley but there was nothing with wheels except the explorer vehicle. Much too big. Then she remembered the rotating table top in the mess – that must have some mechanism underneath to reduce the drag. Then she remembered there were also the harnesses for extra-vehicular work; one of those might give her better leverage.

When she came to detach the top from the table she found that, as she'd hoped, there was a ring of pseudo-metal ball bearings near its centre. She rolled the table top on edge like a hoop back through the gangway to Navigation, manoeuvring it around junctions and through doorways. She laid it flat on the floor next to Mallinson and started to haul him onto it. She found him too heavy to lift and was reduced to rolling him by the shoulders and hips. His body, inert as it was, threatened to slide off the other edge as the table top tipped with his weight but she held on and hauled him back to the centre. She had a little rest, did some deep breathing exercises; Mallinson lay there, his face paler and pastier and his body more ungainly than ever, but he was still breathing regularly, if rather loudly.

She collected a harness and strapped him to the table top using the vacuum pads. By attaching two of the safety lines to the harness she was able to pull the whole assembly along from a standing position, though she had to get the angle of pull just right to avoid one edge of the table dragging too heavily on the floor. Corners were difficult; the top was wide enough to need careful coaxing around them.

When she at last reached the doors into the holding area, they were just too narrow so she had, laboriously, to unstrap him and use all her remaining strength to haul him in by the shoulders again. Aleksi and Allans were lying just where she had left them and did not react to her entry with Mallinson. She dragged him just inside the door, went out, set the lock and sat down against the wall of the gangway, exhausted.

She could afford to leave them for a while before going on to the next stage, she thought, but then she remembered Mallinson's injury; any wait could be dangerous for him. She swore mentally and got up. Leaving the table top where it was, she walked back to the mess, got a coffee from the dispenser and sat down at a terminal beyond the dismantled table. She dug out the instructions and re-read the next stage to make sure she had the codes and protocol correct. The process was designed to return the crew to full consciousness and function, allowing them to take care of themselves in the holding area, which had all the necessary life support facilities but no access to any of the ship's controls, not even temperature adjustment.

She returned rather slowly, opened the door a little and spoke the codes at the required intervals. For several minutes the three men remained motionless where she had left them. She secured the door and watched through the glass panel. Aleksi was the first to stir; he looked around in confusion, saw Allans and Mallinson also on the floor.

“Jesus fucking hell,” he said, levered himself upright and then went over to examine Mallinson. Allans also woke, stared around rather wildly and then joined him next to Mallinson.

“He hit his head on something, probably the edge of the worktop shelf. He hasn't responded to the second stage code of the countermeasures.” she said over the ship comms system.

“Well Caz, God help us, what a mess this all is. Thanks for that info. We'll check him over.” said Allans. “I believe the measures have a timeout safeguard in the case of injury. Let's hope he's OK. I understand you feel you had to do what you did – but it's not what you, or Northern, think.”

“As I'm sure you know I am under orders to avoid discussion of any of this, if for no other reason than to avoid interfering with your possible debriefing by command.”

“Caz, I don't think you quite understand what's happened – but no time for all that now. As you can see Mallinson is waking and he doesn't seem very well.”

As he was speaking she saw Mallinson turn his head to the side and vomit moderately on the floor, groan and slowly sit up.

Aleksi said “Something has changed us, Caz, but it's not 'recruitment', not an enemy controlling us and it's not alien mind control any more than diabolical possession. My mind is clear and under my control, clearer, I think, as if a mist has lifted – to which you might reasonably reply 'about bloody time, Aleksi!'”

“I am not listening to you. I am returning to the central hub. I will only communicate by the isolation speaking tube there. Let me know if you have a problem – a serious problem.” said Caz.

'Preferably life-threatening,' she thought and then wondered who she was being angry with. They sounded human. If they were alien monsters, her being cross wasn't going to impress anyone. If they were still themselves in some way then it wasn't their fault. She shut off the screen and prepared herself for the transit to the secure module, back into the wretched light space suit, back into cramped isolation and tube food for who knew how long.

As she went through the air lock procedure and slowly traversed the 200 metres of space to the isolated chamber, harnessed to the wire spoke between the main toroid of the living quarters and the hub, the problems she faced became horribly clear to her. To safeguard herself all the emergency measures would have to remain in place and of course she would have to take the final decision about what to do with the others.

She wanted to believe in Command's strategic wisdom and its understanding of whatever it was out there that was scrambling its crews' minds but she was sure they had no clear idea of what they were fighting or of how to do it. Talk about 'know your enemy'; they had no idea what or who or how or where – which was why they weren't briefing their crews.

She tried to draw some comfort from the thought that at least she was safe; there didn't seem to be any threat from the crew or any physical threat from outside but the whole situation was too grotesque and frozen in place for her to feel anything but shocked and helpless.

She got through the second airlock, removed the suit with some relief and lay back on the frame. She would check the external services after a pause for breath, she thought. The voice tube whistle sounded; she would have liked to ignore it but Mallinson's condition alone made that impossible.

“What's the problem?” she said, coldly she hoped, lifting the tube cover.

“I thought you'd like to know that Mallinson doesn't seem too seriously injured. He's clearly suffering from some degree of concussion but diagnostics don't show any current bleeding and we've given him the usual chemical cocktail to reduce swelling and inhibit further bleeding. He's lying down, mildly sedated and complaining of a headache.” It was Allans.

“Thanks. Is that all?”

Yes but Caz... Look up records of previous 'RR' incidents – whatever you can access, particularly look for any where actual damage has been done to personnel, equipment or even directly to the mission objectives, if it's in the record.

“Allans, if you are Allans, I have other priorities right now. You're wasting your breath and my time.”

“Time is something you will not be short of, Caz. When you get bored look out whatever records you can find.”

“Goodbye.” she said and closed the link.

She wasn't going to start chasing up fleet records. Her first job was to get a signal off; there must have been an automated signal when she used the protocol but they would urgently need to know the status of the ship and crew.

Although she was nominally in control of the ship – she had direct access to the drive control and guidance systems – the ship's computer would continue with the mission parameters unless there was a direct threat or Command changed them. She had no reason to think there would be any need to alter course or velocity in the near future.

Her comms facilities were primitive, limited by the need to cut down open channels and comms was difficult enough in normal circumstances; the nearest Command relay post was the observation platform around Saturn, for them nearly as time distant as Earth, so the message beam had to be both powerful and very tightly focused. During emergency isolation the only method they had come up with was the same as her data link's, breaking short messages into micro bursts and relaxing the shielding for a nanosecond to send it.

After setting up Navigation and Comms according to the protocol she sent the message.

Officers Aleksi Kivi 32079M, David Mallinson 663476J, Mark Allans 741357J disabled with USTC protocol after extreme and shared behavioural changes including

attempts to persuade me disobey orders and break isolation protocol. Now restored according USTC protocol 2 (Mallinson head injury probably minor) and confined to holding quarters. I have returned to shielded module in core. Ship course and relative velocity unaltered. Awaiting further orders.

Henderson LACC officer/ Acting Commander

The Saturn Command post was over 60,000 light minutes away and she doubted if any decision could be taken there anyway – so she had more than two months to wait. She wondered if the orders would be changed now, the mission abandoned. How could they support the other ship, Intrepid, with just her active? Perhaps she would be ordered back to base. That would be something, planet leave after debriefing, but the fantasy only made what actually faced her more unbearable. She tried not to think about two more months' isolation, waiting for orders she feared, then, when nothing happened, waiting again for 20 more days before carrying out the fail-safe procedure. She stopped that train of thought and, with an effort, focused on doing what she could to prepare herself for the long wait, checking supplies and equipment and drawing up a simple routine of activities.

She managed to swallow some of the tube food, which appeared to be flavoured with banana and apple and had the consistency of toothpaste, administered herself a combined subdermal tranquilliser and sleeping cocktail and arranged herself more or less horizontally in the chair, which did at least conform itself very precisely to her body shape. She ordered the lights off. It was very quiet, just a tiny rustle of air from life support. She was aware of the faint gleam of the control panels against her eyelids as she eventually drifted off.

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Someone's arms were reaching towards her to enfold her in their embrace, a face bending down towards her, a face which looked like one of her training instructors but was speaking softly in Aleksi's voice; the thrill of anticipated contact quickly faded as she became fully awake. The panel lights glimmered, just illuminating the curved white walls of the module and her situation abruptly caught up with her. She managed to make going through her routine – wiping herself cleaner, changing underwear, breakfast (a nutrient bar), exercises, checking comms and navigation – last nearly an hour but she was left with deserts of time before her.

She found herself back at the main control interface. She checked navigation again; nothing had changed of course; they were moving with steadily reducing velocity towards their original destination somewhere in the Oort Cloud. As she had no authority to use up valuable fuel by altering their course or speed, that would stay the same until she got new orders.

Despite herself her mind kept returning to Allans' claim about 'recruitment' incidents; of course,

if they were in some way under foreign or alien control they would try to persuade 'free' crew members that they presented no threat, but she certainly had nothing else to do and her curiosity was aroused. Somewhere at the back of her mind, too, was the thought of the orders she might receive next. She started to query the ship database on RR incidents and their tactical and strategic significance, looking for analysis of the damage caused, ships personnel lost and mission objectives aborted, information which should be available, if only as justification for the current avoidance and containment strategies, one of which she was actually following. It might be naïve of her and it was certainly against protocol but at least it would pass the time.

The truth was she still wasn't fully convinced about the threat from them; she knew she had disabled her crewmates partly in self-preservation, frightened of what Command would do to her if they decided she had failed in her duty as LACC officer, in other words out of cowardice.

She longed for a flask of hot tea. She must have spent four or five hours searching the records before a break became sufficiently attractive; in the end it was frustration rather than tiredness that made her close her eyes and pause the search results. There were the main incidents listed, with details of the type of vessel, personnel affected, mission involved and measures taken but no details of the hostile actions of the recruited personnel, nothing more than the standard formula "the mission was compromised" with no information on the success or failure of countermeasures or what became of the recruited crew or the vessel.

She tried dissolving a squidge of the tube food in water she had warmed in her mouth as a substitute for coffee or tea. It was like warm banana and yeast flavoured slithery soup, horrible enough but possibly better than the paste on its own, which stuck to the roof of her mouth and refused to budge with the bulb of water. The thought of all that coffee in the main ship, even the poor stuff coming out of the cabin dispensers, was torture.

The voice tube whistle went. She had no obligation to answer it; the well-being of the rest of the crew was no longer a company issue and she was advised, though not ordered, to stay clear. She answered it anyway; boredom and loneliness were powerful enough even after a single night.

Aleksi seemed to be the permanent spokesman and apparently he just wanted to talk. He gave her updates on their condition: Mallinson was OK but had a headache and the rest of them were physically fine but bored. She didn't sympathise. Then he said :

"We all know that this is hardest for you. You may well be ordered to kill us all and you would have months of solitary living to look forward to after that. Survival would be a challenge, mentally and physically."

"Well thank you for the understanding and the sympathy. It all goes to show what nice alien monsters you are. Maybe we could all have tea together some afternoon."

Aleksi's voice was steady when he said "Since it won't affect the outcome, we might as well be company for each other. It's going to be unbelievably dreary otherwise – you've got nothing to

lose Caz. Command isn't listening in.”

“So just keep chatting casually to the enemy or aliens who have taken over my crewmates' brains and bodies, is that your suggestion?”

“We are not the enemy or aliens. We're still the same people. We have the same memories, the same feelings, mostly – well, no differences that would stop us talking to each other. It's hard to explain what has happened to us – we can't explain it to each other but we're still us. We don't mean you any harm you know.” He sounded mildly apologetic, as if he'd forgotten to hold a door open, but had more important things on his mind.

“No, of course you don't – you just tried to get me to join your mutiny,” she snapped and closed the tube.

She drifted carefully from the console to the frame/chair and lay back, taking in her tiny domain, the pale curve of the ceramic walls, the seams of the round airlock door in what was at present the floor, the dispensers next to the console and the hygiene recycling unit on the other side. She didn't entirely believe in her own anger and knew that Aleksi didn't either. The whole situation was too weird and hard to process for anger; she didn't know what she believed had happened to them or what she felt about them.

She floated herself into exercise position and strapped the wall harness on; she began with swimming exercises, hoping to turn off thought, at least for a while.

Spooky action at a distance

The international space station complex was larger and stranger than Josh expected, despite his having seen it many times through the media. They had floated one by one through the airlock into a small white oval chamber with no gravity at all. They had drifted chaotically for a while, occasionally colliding with each other and the walls. Eventually they each found ways of slowing themselves down and hung to something. Signs lit up near a moving crawlway and a smooth computerised voice advised them to find a tether on it, hold on and relax. A few moments later Josh found himself being whisked through the tunnel and ejected gently into a larger, squarer area constructed of grey, ribbed plastic panels. Here there was enough pull for there to be a sense of down and for them to stand unsteadily and get their bearings.

Now a tall, fit-looking woman in T-shirt and shorts emerged from a larger tunnel with long floating strides. She cleared her throat. “Is anyone in charge here?”

Jim edged forward. “I am, in a way. I expect you'd like an explanation.”

“My name is Slater and I am the nearest thing we have to security on the ISS. Although we had

an unofficial warning just now that you were on your way, we've had no time to prepare for you. There is no law against unscheduled arrivals here, probably because no-one ever imagined anyone would be insane enough to try it," she said. "I don't know who you are exactly or how you managed such an unorthodox and technically improbable lift on on a space elevator we thought disused but you will have to leave as soon as we can think of a way of getting rid of you safely. In the mean time we will obviously have to keep you isolated from the rest of us until we are sure you are free of infection."

"I apologise for our sudden and unscheduled arrival but our base was under military attack. I believe you are our only safe haven." Carey said tersely.

"We did get a warning of the possibility from director Harding recently and of course from ground control just now but I'm afraid we don't have the resources to cope with four extra mouths for long – to feed, to supply with air and water and living space – and there is the risk of catastrophic infection in a closed system." Slater sounded almost as apologetic as Carey.

"We are asking for temporary asylum here. As I said we have nowhere else to go at the moment. As for the infection risk we have all been some time in isolation after fully recovering from prion diseases. We're not a danger."

"Your presence has already endangered everyone here – I am assuming that the missile which flashed between your craft and the station was intended for you.

"Missile?" said Jim, clearly shocked. "What do you mean??"

Slater raised her eyebrows. "You must know you were targeted. We are assuming you possess advanced tracking and anti-missile devices, which you used with admirable skill, though how you managed to mount such sophisticated and bulky equipment in that primitive module I don't know. It makes your claims that you are nothing but helpless, innocent victims a little hard to swallow."

"We have no such equipment – you can easily search the module. If there really was a missile it must have malfunctioned. I suppose it can happen."

"That doesn't easily explain what was observed and recorded on our systems. Every alarm went off and practically the whole of our present resident population watched the screens in horror as the missile homed in on your module, too close to us to be safe, and then, at the last moment, veered off target, passing between your module and us."

"What happened to it?"

"Tracking has it heading off into space toward the sun."

"I don't understand at all. Could I see the footage?"

"After I search the module, maybe that could be arranged. No promises."

“Of course – we are in no position to object anyway.”

“If you don't mind, and actually whether you mind or not, I'd like to search your module now.”

“Of course, but I assure you, you won't find an explanation there.” Jim's tone was flat but Josh could tell he was badly rattled.

“If not, then I am going to need explanations from somewhere and I shall be looking to you for them, whatever I find or don't find in your module. Stay here until I return. There is a water dispenser on the wall.”

Jim thanked her as she hurried off, talking fiercely into her hand held device. Beth and Adrian went over together to the dispenser, possibly tactfully, thought Josh.

Jim turned to Josh. “Do you have anything on all this?”

Josh was still feeling thoroughly shaken up by his 'warning' experiences and very confused as well but he felt he had to explain.

“Well, you noticed when it happened to me. I suddenly had a sense of something dangerous probing but at the same time hurtling nearer. I knew it was intent on smashing us to pieces and we had no way to avoid it.”

“And?”

“Then suddenly it was gone, past us, missed – I mean that's how it felt to me – huge relief as if it had turned aside a moment before hitting us.”

“I haven't come across anything like this before.” Jim had an odd expression on his face. “You're clearly different from the rest of us. I suspected you'd had a second warning – or whatever it was. Nobody else has had spooky abilities like that as part of the cure. And you didn't know you had this ability?”

“No idea. Is it really Northern who are after us?”

“I'm afraid so. I haven't had time to explain anything – maybe now is a good time, while we're waiting. I used to work for Northern – in conditioning research, I'm sorry to say.”

He stopped as Slater emerged from a tunnel, moving with long floating strides.

“Please follow me. You can look at the recording of the attack on the way” She loped into another tunnel and turned to wait for them.

A minute later they were in a comms and tracking area, watching the slow-moving blip of their module in the centre of a radar screen. A spark appeared in the bottom right and rapidly homed in on the module's trace until the two spots of light were almost superimposed – at which point the missile's trace made a small correction and continued across the screen, flashing more urgently and then more slowly until it disappeared off the edge. While they were watching, Josh could

hear a faint dry whispering sound; he looked round and saw Slater still watching the display in an abstracted way and he realised she was listening intently to what someone was saying in her ear piece. Next to him Jim Carey said, half to himself, “That's extraordinary – as if someone had got control of its guidance system in the last second or two.”

Slater must have heard, despite her focus on the information being conveyed to her with such intensity in her other ear. She was clearly very disturbed by events and even more by what she had been told.

“That's about right, apparently. Analysis of the missile's flight vectors don't make sense to our tracking people in any other way; a missile's guidance system may malfunction but a few seconds before impact and in such a helpful manner? And now we have another mystery – our ground stations report that for the last few minutes they have been unable to see us – their tracking systems cannot fix our position and are not showing a trace. They put it down to local interference of some kind, but have no idea what's causing it. Follow me again. You're going to meet our top brass.”

The four of them were facing Slater and two new individuals in what looked like a briefing room. Slater appeared even more worried but possibly marginally less hostile towards them, thought Josh. She started proceedings.

“Station Administrator Cummins,” she gestured to the quiet-looking man on her right, “and senior scientist and medical officer Rai. A nod to the slight, silver-haired Indian woman on her left.

“You take things from here,” said Cummins.

“OK,” said Slater, “so there is nothing we can detect aboard the module capable of deflecting a missile, I grant you that. However, ever since it and you appeared on our screens things have been happening here that have no explanation, dangerous things, and on the ISS things are dangerous enough already; it's my job to make sure everything and everyone obeys the rules – to ensure survival; you lot seem to be involved in breaking every kind of rule there is. You need to tell us everything – who you are, why you are here, above all who is firing at you and why.”

As she spoke Slater started drumming her fingers on the top of a display screen in front of her.

Jim cleared his throat. “I'll do my best to explain but, if you don't mind, I'll leave the least believable bits until later. We are all individuals who have made complete recoveries from a particularly virulent prion-based illness. Josh here is the most recent. We did not recover through conventional treatment.”

“I can easily believe that,” said Rai with emphasis, “as no conventional cure exists nor is one currently thought to be scientifically feasible. So what is this new miracle discovery and how

does that explain what's been happening here?

“Well as to the second part of your question, Northern believe that we are a danger to them.”

“Why?” The question came from Administrator Cummins.

“Have you heard of a piece of military paranoia for which the popular term is I believe 'remote recruitment'?”

“That's only one of those wild conspiracy theories – Northern haven't even bothered to deny it,” said Rai impatiently. “But the cure – what about the cure? Your survival is a miracle – a scientific miracle.”

Jim Carey gave her and then Cummins a worried look. “This is where it begins to get a little crazy. We don't have a cure and have no idea, well, almost no idea, what has cured us but we do know that it only seems to happen in fairly extreme isolation from the world and in the company of at least one other person who has recovered in this way.”

Rai considered for a moment. “You can't catch a cure,” she said irritably, “and there's another obvious hole in your variously unbelievable story. Who was the first? How did that happen?”

Jim shrugged slightly “That would be me. I was working for Northern on drug assisted hypnosis as a part of conditioning and training but I contracted one of the prion diseases. I was put in a deep Northern military isolation ward, expected to die. There were two members of the space crews there, who seemed to have been injured in some way while on active duty in space. There was a big flap about them the whole time I was there; they were undergoing intensive treatment, constantly being wheeled off sedated and brought back with surgical dressings on their heads and necks. What was odd was that before treatment at least one of them looked remarkably healthy – especially considering the heavy sedation they were under.”

“And what happened to you?”

“I was also under heavy sedation, palliative care I suppose,” Jim Carey paused as if unsure how to express himself. “I woke up one morning, not sure which one, and it had happened – I felt not just better but extraordinarily well. My body was signalling total recovery and well-being – a shout of triumph! I would have told someone and asked to be tested and sent home, but the panic going on over the two officers was occupying everyone and there was no-one in the ward – for hours on end. I began to think about the treatment those two poor officers were getting and the way the whole place resembled a panicky research facility more than a hospital; I decided that I was likely to be the next research project and discharged myself. I just walked out. Luckily I was known to the security and admin personnel because I worked there and they didn't seem to know or care about my medical status. I then arranged, at great expense, to disappear – I didn't want the military or the medics to find me. I felt that I had to protect the miracle that I knew was still active inside me – felt it very strongly.

“So all of you have been cured of one of the incurable prion based infections in some inexplicable way and yet you haven't offered yourselves to medical science to find the mechanism and use it for others?” said Rai.

“We have tried but so far no-one has been able to isolate the mechanism or even understand what it is – and there are the oddest necessary conditions for its success. In any case every one of us has been through desperate times and we are being hunted by Northern, which has made research and development a little tricky. We have been in hiding and you have evidence of why – our arrival and now the missile.”

Slater took over. “Yes, I was coming to that – it has to be my priority. Your tale hasn't accounted for the missile suddenly changing course to miss you. Do you have any theory about what happened to it? Any explanation at all?” Josh sensed that Slater was struggling to keep a calm focus amid all the bizarre and inexplicable events.

Jim glanced sideways at Josh but said nothing. There was a little silence. Then he spread one palm in a gesture of helpless ignorance.

“So what's all this got to do with the 'remote recruitment' problem the military are supposed to be having?” asked Cummins.

“Well, maybe nothing,” said Jim, “but they are certainly trying hard to lay hands on us, even if it means killing us all. Certainly the panic over those two officers suggests they are seriously worried by something happening to their personnel. My theory is that they believe what is happening to us is the same thing that has threatened to undermine the command and control structure of their space programme.

“Do you believe that is possible?” asked Cummins.

“I know nothing of what is happening in space and I don't know much about what has happened to us either, but I don't see any threat, especially as we are civilians. As civilians in life-threatening circumstances I must repeat our appeal for temporary asylum. I know there is precedent for the ISS granting asylum.”

“I understand your request but we have fears about the safety of the station itself. It can't be coincidence that our ground tracking stations are having unexplained problems too. Do you have any idea what might be causing that?” Cummins voice sounded strained.

There was a silence. Jim looked briefly at Josh and said “We have no idea – but maybe it's the same thing that confused the missile?”

“Yes, we rather assumed they might be connected,” said Cummins. “If I am going to give you refugee status, I want your word that you will cooperate with us in every way, both in the routine running of the station and in trying to resolve the present crisis. That will include providing us with detailed information about your individual backgrounds and history. Is that agreed?”

Jim turned to look round the group. Everyone nodded or murmured some form of assent.

“In that case I can go so far as to grant you temporary refugee status during investigations into your status and recent events in which you have been involved. We have requested expert help, particularly in the fields of space combat and advanced physics. No-one has admitted to the missile.

We have lodged the strongest protest with the United Nations and they have promised to do all in their power both to protect us and to discover who was responsible. Naturally they are very curious about who you are and how you got here. I couldn't give them your story without undermining my own credibility and probably starting a bureaucratic process to have me removed on mental health grounds so I simply said we were investigating you. You will be in rather crowded accommodation, sharing facilities intended for less than half your number but welcome aboard officially and we will leave you a few hours to recover and adapt to our rather challenging environment.

Jim and the rest of the group followed Slater through another of the tunnel-corridors. Josh knew he would have to explain his experiences to the ISS crew as well but was relieved he hadn't had to yet. He wasn't quite ready but he knew he had responsibilities to these strange new abilities and that would mean intensive investigation and attention.

Special Commission

Angus Ward-Hennicke was having dinner with Director Harding of UN space operation ground control, a man he couldn't help regarding as a mediocre scientist who had acknowledged his limitations and sold out to become a civil servant, a senior and quite enlightened one but no longer a part of the great hunt. He was just now being extraordinarily interesting but excruciatingly cautious. He was just saying:

"I know I sound absurd when I say this to someone like you Angus, but I need you to agree the conditions before I explain what is going on. Believe me, you will understand when I tell you what we know so far."

"You want me to agree to incarcerate myself in this facility for an indefinite period so that I can help you with a problem you can't solve, but you can't tell me what it is and I can't tell anyone else what you tell me or what I find out." Angus lifted his glass and swilled the wine around before drinking, put it down and looked, intimidatingly he hoped, into Director Matthew Harding's face.

"I think you will never forgive yourself if you turn me down, but I'll have to ask you to put it in writing, to sign the agreement. I can only say that we are dealing with things outside anyone's previous experience as far as we know – and that we are all spooked. There is a dangerous political situation as well as a scientific mystery looming over us. I promise you will be free to go as soon as the two of us agree it's sensible and you will be free to communicate with your

fellow scientists on the same terms. The docs are on your personal space now; all you have to do is authorise and return."

"In other words until *you* think it's OK. It had better be as earth shattering as you make out or you will be very sorry, but it must be something worth looking into I suppose for you to be making such an almighty fuss." He mentally authorised the transfer. "Here you go! I am now your prisoner for an indefinite period. Enthrall me! Oh, I'm already enthralled, aren't I!"

"Finish your wine and follow me. I'll show you what we have, rather than start to construct foolish theories about things, theories which you will delight in demolishing."

.....

"So, in summary, we have an unauthorised use of a low altitude space lift by a custom modified lift capsule which makes a rendezvous with a – what? A pirated orbital transfer module? I don't believe this part of the story, not any part of it. How were the trajectories calculated? The relative velocities are quite large. How can you have an unauthorised use of a space lift? Somebody must have authorised the preparation of the whole project."

"I agree it seems that way but that's not the mystery we have the most urgent interest in."

Harding said quickly. "Can we focus on the more recent parts of the story. The truth about their arrival can wait."

"OK, if you say so. Then come the really far out bits. Somebody fires a missile at the module, the missile is turned aside 2.3 seconds before impact and makes no attempt to reacquire the target but shoots off harmlessly into space as if suddenly afflicted with terminal AI Alzheimer's. The module docks happily with the ISS and offloads a motley crew of refugees all claiming to be recovered from one of the incurable prion horrors. On inspection the module has no detectable defensive capability nor room for any. At about the same time as the module docked, unexplained radar echoes and interference make ground control stations lose precise electronic tracking of the ISS, though it's clearly visible in its expected position through an optical telescope. As far as we know no one can track the ISS properly as the echoes lose coherence. Is that it?"

"Up till now. But they want help up there. They'd like *you* there"

"I wonder if the ISS is the best place to be to deal with this. It may be too close and too vulnerable."

"It's politically safe at least. That's important considering the 'refugees' story of who is after them and why. It's a wild story, politically and scientifically, so wild that they almost didn't bother telling us, they were so sure we wouldn't believe it. Also communication has been rather one way as we have had to use tight beam laser signalling, which is really only meant for major electromagnetic disturbance."

"They can't receive radio at all?"

"Not from earth apparently, but we hear them perfectly."

"And this theory?"

"That the Northern Group military see them as a severe security threat, part of their 'remote recruitment' problem. I know you're aware of that bit of weirdness. There was something about their de facto leader absconding from a military hospital where a high security prisoner was being treated."

"Strewth! The dark arts of 'recruitment' in the mix as well. That's too much - ."

"Do you believe they're right and it's a real threat?"

"It's always hard to disentangle military paranoia from reasonable fears, even harder when the whole of the military space corps seems panicked by the very environment they are trained to work in – but it does seem that something is happening to these crews."

"I'm sure that you of all people are not going to countenance some kind of mind control without a physical mechanism."

"Without a physical mechanism, no, but a physical mechanism we haven't found yet – well, that's impossible to rule out of course. We have to try to be open-minded when faced with the unexplained. I suppose it's more than likely the military have been playing with minds using their own dubious methods, with unexpected and unwelcome results." Angus looked down at his hands, avoiding Harding's sceptical gaze. "Of course the missile deflection and the tracking problems could be caused by a group here at home if they're technologically advanced enough – by whoever fired the missile for example. However, if it's not them, I think something physically detectable out there influencing events in the ISS orbit, even an alien visitor, would be better than magical powers and miracle cures. So, how do we set about finding out if there is something hiding in such a huge volume of space? That's the first challenge."

"Any plan forming?" asked Harding encouragingly..

"Well, whatever it is, if it exists at all, is making our standard comms and observation methods unworkable, so the first thing is to use non-standard means. I think we might try something at the larger end of the EM range, say long waves or something similar, just to see if we get any bounce. Probably best from the ISS; it's easy to set up but you get only the most basic info back - something there or nothing. Then we'll try something else, don't know what yet.

"So you'll go?" There was dawning relief in his voice.

"Yes, you got your man. Anyway I like some of the people up there."

"I'll arrange for us both to go up tomorrow. Anyone you can recommend as a military weapons expert?"

"Maybe Brandon, if he's not working for the other side, whatever that is."

"I thought the two of you didn't get along. I don't want to introduce personality clashes into all this."

"He has a strong sense of responsibility and finds my attitude to science selfishly frivolous, just as I find his dourly unimaginative, but he would never allow anything personal to interfere with a working relationship. Actually I think we complement each other."

"Let's hope so. Shall I contact him?"

"Why don't we ask him to join the two of us in a conference call, top level encryption. That should make even Brandon curious. Then we can use our persuasive powers, but don't say we're both going up the well."

"Why not?"

"Because you're not. Brandon will have a fit if there isn't somebody reliable looking after home base. You need to be down here looking after all the tech, the resources, the political networking – and keeping a record."

"You think it's that dangerous up there?"

"Who knows? But a nervous military and misguided missiles are not reassuring for up there or down here, not to mention possible cloaked incursion into our solar system."

"I am responsible for the station and its staff and that puts me in charge of this investigation, so I can ignore your er – suggestions." Harding's tone was quite mild, but he looked worried.

"Not if you want Brandon and me up there working on it. You know perfectly well it would be the only sensible way to do things. If you're worried about the crew feeling let down, I can explain why it's essential you stay here and reassure them that the situation has your full attention. Will that make you feel better about staying?"

"Why is it essential I stay? What am I going to be doing?"

"Lots. Trying different methods of locating our intruder. If we have a high tech intruder it will probably adapt very fast to long wave probes. You could work on a random wavelength sweep for example. You could also work in your UN role to find out what on earth the military are up to and who authorised the firing of that missile. You could also gather intelligence on survivors of the prion diseases and any evidence of effective treatment. OK?"

"You were always good at finding other people things to do. What will you be doing up on the station, apart from bombarding probably empty space with long wave radio signals?"

"First of all examining this extraordinary little band of survivors, their background, their stories and their present state, physical and mental.. Then perhaps tune up the stations excellent observation systems for nearby anomalies and fluctuations; after all, that's one of its primary

purposes. Thoroughly cheeky of our hypothetical visitor to hide itself in plain sight of our most advanced observation platform, if it has.”

"What is going on with these refugees? I thought the prion contagion was incurable. That's why it was a favourite starting point for biological weapons development. How can there be an organised group of people undergoing spontaneous remission from an incurable neurological disease?"

"How can these things be? Missiles deflected by unknown forces, miracle cures, inexplicably scrambled radar, possible outer space visitors, Northern spooked by some form of mind control weapon. Let's find some sensible explanations.”

They continued to talk for some considerable time before separating to make arrangements for their respective roles.

Decision Time

To acting Commander Henderson, exploratory vessel Resolution.

Based on your account of your tactical situation and your remedial actions, Command takes the view that the mission is jeopardised by the presence of hostiles on board. You are therefore ordered to carry out counter-insurgency measures as detailed in your orders under paragraph 1 of 'Insurgents' as soon as you receive these orders. No further orders will be issued until confirmation of these measures being carried out is received.

Flagship Command, Admiral Webster

It had been the equivalent of 11 weeks since she had sent off her report, so long a wait that she had begun to hope that Northern had forgotten them or lost track of the ship, or suffered some major disaster. She'd known she was deluding herself and that the message was on its way but seeing it there on screen was even worse than her fears.

The time in isolation had passed more slowly every watch. It wasn't long before she realised she was in danger of losing her mental balance through boredom, sensory deprivation and claustrophobia. The capsule walls had started to float and then roll in towards her paradoxically, appearing to move ever more rapidly, but never seeming any closer. She had begun to see the console and control lights flash erratically in the corners of her vision when she was not looking at them but they were unchanged and steady when she turned her head. The exercise harness had started to look like a crouching animal in the low light before sleep periods.

In self-protection she had turned to the service information console. There was little there to interest her apart from the rather limited history of RR incidents in the logs and service records available. Loneliness, boredom and fears about her own state of mind led her to reach for the speaker tube, despite the official warnings; she told herself it was her duty to assess their condition.

Aleksi almost certainly didn't believe her when she said she was just checking on their status but there was no sign of his trademark sarcasm or underlying smugness. She did her best to sound coldly professional but it was difficult when she very much wanted to hear what they had to say about the history of remote recruitment – and their experience of it, if she was honest.

"It is true that the records of the two previous 'RR' incidents are very limited.,” she said. “There's no account of the timing of events, the outcome for the 'compromised' mission or the crew, no military cost/benefit analysis."

Aleksi didn't respond directly. "I think we must be honest with you. We have changed. We are not the dedicated Northern professional officers we were. Our conditioning is gone. We doubt our implants would even respond to the stand-down signal now. We feel we have been freed from a dangerously paranoid and bullying master."

There was a note of quiet anger in his voice as he went on.

"We are shocked by what Northern did to us and by our letting it happen. We don't know what to do next, but we know we're in danger from you."

"If that's all you're complaining about ,you knew the score. You made the choices – when you *were* you."

"We are struggling to remember why or how. We feel disconnected from our past selves, the military setup, let alone the mission."

She tried sarcasm. "So you presumably claim there are no records of damage from past incidents because there's never been any damage, that you mean no harm, you are just confused and peace-loving creatures, or just confused and peace-loving alien/ human fusions, up to nothing t all, trying to work out who you are."

“Aleksi had no way of knowing what would be in the RR incident records, but just trusted that there couldn't be any evidence of human casualties or asset destruction. That's not part of it,” said Mallinson.

She pointed out that they were saying just what they would say if they had been reprogrammed and taken over and broke off the conversation – but she hadn't been able to keep away from the voice tube for long.

In one typical recent session Mallinson had been in passionate full flow against Northern:

"Northern behaves as if it represents the whole planet in space but is in fact funded and controlled by the Eurasian bloc. We are racing toward the source of a mysterious signal produced by unknown tech, in a ship bristling with heavy weapons, under full conflict protocol and with our orders under wraps. It's not hard to work out that we are being sent to grab something before anyone else arrives and if necessary kill anyone who gets in our way."

All this had occurred to Caz but she had put off thinking about it. "That's just guesswork. We don't know what we will have to do. The weapons are supposed to be defensive. We are also equipped with research robots and scientific equipment. After all, the outer regions exploration has been in our hands for years and we don't really want the others muscling in, when we have taken all the risks and borne all the expense."

Allans answered her, the first time he had done more than murmur assent to the others.

"We signed up for space exploration; I know that's why you are out here too, Caz. Exploitation of resources and discoveries should be under the control of the UN. Northern Group have been keeping everything to themselves for years, using any number of excuses: 'technical issues', 'return on investment, 'patent exploitation rights' etc."

"There probably are technical issues – on a planetesimal that remote there must be endless...." She stopped, realising that more and more she was arguing with them as if they were still normal crew.

"If we have to fire on other space vessels or researchers that will be an act of war, the start of a space war. Is Command aware of the consequences of what it's doing? Do you want to be a part of that?" Allans continued.

She had forced herself to stop the conversation there, saying she might not know what the orders were but, as hostile aliens, they would never find out; she would make sure of that .

But it wasn't long before she was in contact again, often at their initiative, but sometimes at hers. They had continued to claim she had nothing to fear from them but consistently attacked Northern's aims and methods. They were also desperately worried about what she would do.

In the last session, only a few watches ago, Aleksi had said, "We are sure you will get orders to kill us eventually. You must have filed a report as soon as you got back to the module."

"Why do you think Command will order me to kill you, if you're so harmless?"

"I didn't say we were harmless to Command. Command is right to fear a contagion spreading through the service, a contagion that takes serving officers and men out of their control for ever. We *are* a danger to the present mission, as we have no intention of firing any weapons, of claiming anything for Northern, of doing anything that endangers peace."

"Jesus, it's a religious conversion and you're reborn hippy peaceniks. You want to join a commune, hold hands, smoke naughty substances and bring about cosmic joy. No wonder Command are worried," she had said.

She felt this was close to the truth. They seemed all too human and believable; she had a sense, too, of them coming to terms with the change in themselves, a shared vulnerability. She found their naive moral certainties weird, but she felt no threat from them; they were clearly a threat to the mission but she was finding it hard to make the mission, details unknown, the absolute

priority it should be.

And now the nightmare had happened; the orders were in front of her and the decision was real and present.

She tried to think things through. They were safely contained and possessed no weapons. None of them had ever tried to persuade her that they were unchanged, despite there being no evidence except their own statements and behaviour. They had not tried to persuade her to let them out.

They appeared to be childlike versions of themselves, training, experience and realism or cynicism stripped away. Of course they might be concealing their true nature and intentions but it didn't feel like that; she had seen no evidence of hypnotic or programmed control but then there wouldn't be any evidence if they were good enough at concealing things. By their own admission though they were at least mutineers: they would not carry out orders or complete Northern missions. They must know that they would at best die during Northern's examination of them. Such a willingness to die for new-found principles might not be normal human behaviour, but was it hostile or alien?

This brought her back to her own orders. Trying to compromise by leaving them locked up was pointless. She would be disobeying a direct order in a conflict situation and it wouldn't alter Northern's treatment of them. She would be sentenced to military prison with deep core retraining, which would leave her more automaton than person.

Either she had to convince herself that they were dangerous reprogrammed hostiles and follow orders or she had to join them and form some plan of survival, however unlikely. Could she go through with the counter-measures, press a button that would turn off life support to the holding section? If her training enabled her to carry out the order, how would she cope alone with such a memory? As sole crew member she would be unable to go into hiber sleep, would have to face all those months of isolation as the ship followed its flight programme home.

She realised then that her decision was already made, her attempts at analysis irrelevant. She stepped into the light vacuum suit, knowing she must act without pausing to think.

Modes of Enquiry

Angus, Brandon and Science Director Rai were in the back-up tracking station module with the access tunnels sealed. It was little more than a swelling in the tunnel with a few screens and control panels set into the walls. Stuart Brandon stood ramrod straight, managing to look as if he was in uniform and on duty, despite the loose coveralls of station wear and the light gravity.

Angus had been careful to consult Rai from the beginning, even though Brandon had been sceptical about including her. This was only partly diplomatic; he felt they could use her knowledge and curiosity about human biology and behaviour.

They were reviewing their progress, or the lack of it.

"The fact that the tracking interference disappeared before the two of us arrived is a problem." said Angus "There must have been a mechanism for it and I like to think we would have been able to detect its origin from here. After all we'd be on the unscattered side so to speak."

"We certainly tried while it lasted." said Rai. "We scanned for any unusual sources of any kind of radiation found nothing."

"We have failed to detect any physical presence. The ionised gas release has dissipated as planned over a vast area of orbital space and continues to spread but has encountered nothing unusual apparently. There are no unexpected large gaps and no detectable excitement of the ions, except by known satellites. Of course it's all fairly slow, so a very mobile object could conceivably dodge, but would have to continue to dodge – and there has been no heat signature or any other evidence of powered movement." Brandon sounded personally offended by events.

Angus sighed in sympathy. "What about the miracle crew? Any ideas about them?"

Rai frowned. "There is no obvious sign of neurological impairment in any of them. They all seem extremely healthy. Going by the evidence I would have to conclude that they were either lying or suffering from group psychosis – that they were never infected with prion disease. I can't find a scientific explanation for their stories but I don't think we can discount them. There is the distracted missile to account for and the absurdly dramatic nature of their arrival. I very much don't want to accept that some unknown biological mechanism has stopped the prion folding in its tracks and then flawlessly restored their nervous systems, including their brains – and perhaps done even more – but I am being forced towards it."

Brandon drew in his breath. "What do you mean by 'even more'?" he asked.

"I'm not sure what I mean. I don't understand it and I'm not certain whether I am actually seeing a genuine difference – but they seem unusually secure psychologically for people in such circumstances – all of them. And their leader is impressive." said Rai.

"All highly subjective judgements!" Brandon was not going to accept even more irrational events without a fight.

"True," answered Rai. " That's why I would like to do some psych evaluations and see where they come out on the standard charts. They'd have to volunteer of course."

"They would, though, wouldn't they." said Angus. "They're nothing if not cooperative."

"Yes, all of them, cooperative, calm, unfazed. I'm sure they would volunteer.."

"Their mental balance may be impressive but psych tests won't provide answers to the physical mysteries," said Brandon. "They must be our priority."

"Yes, you're right of course," said Angus – and Rai nodded unhappily. "So we have drawn a blank and you found nothing before we arrived, Rai?"

"We found no possible source for the interference or for the missile deflection. The only unusual phenomenon was the scattering of ground based signals but there *was* another slight mystery in our own systems."

Brandon looked at her in surprise. "Why haven't you mentioned this before?"

"Mainly because we were reviewing our efforts at detection of foreign activity, rather than our own internal systems – and because I was checking to make sure it wasn't just human error – but I was always going to bring it up. The first mystery is about our scanning systems orientation. Our sweep systems are usually aligned away from earth, for obvious reasons. These are different from the short range radar tracking systems, which are used for docking and were the ones which tracked the missile. After the missile event the security officer decided to point one at the earth to get early warning of anything coming this way but found that one had already been reoriented in this way. We assumed that someone had pre-empted him but we did investigate and no one admitted to it. The electronic log showed it happening in an entirely normal way."

"Does it require any security clearance?" asked Brandon.

"No, anyone who knows the procedure could have done it. We are not a military outfit and these are scientific instruments at the disposal of any researcher, though they are of course supposed to ask permission and to log their names, time and research purposes when they use it."

"Could it have been one of the shuttle arrivals?" asked Angus.

"I don't see how," said Rai. "They don't know the systems or where to go – and they would have been under supervision still as they'd only just arrived."

"And the other mystery?" asked Brandon, persevering.

"From time to time, since the earth based tracking returned to normal, there has been slight interference on wireless communication with control systems around the station. This has always happened, but it is a little stronger and more persistent than usual. It's not been bad enough to cause real problems, just slight delays in response times from non-essential systems, sometimes needing a repeat of a command sequence. It's intermittent; we reckon it's about 15% more frequent than usual."

"What do you think, Brandon? Significant?"

"It's odd, the two together. It could be just noise, random reactions in complex systems to unusual events and human error or misbehaviour; somebody switched the scanning without following procedure and isn't admitting it, but I doubt it.."

"I agree. Are you thinking what I'm thinking?"

"That maybe our source isn't an intruder into the solar system but something much closer?"

"Yes, a recent arrival."

Rai said. "That had occurred to me too – though I have no idea how any of it could be done from here. Maybe my testing the new arrivals is more urgent than we thought."

"Yes, I think so. I have another and rather wilder idea, which I have just cleared with Director Harding and your administrator. It must be the most worrying thing they've ever approved. I'm trying to arrange for a missile, without a warhead, to be fired in our direction. It will be programmed to acquire the station as a target and approach to within 2 kilometres but pass by at that distance as if it has a proximity detonator. There is a further safety mechanism which will allow us to abort the flight from here if necessary. I'm hoping that simulating another attack will make something interesting happen. We need to disable the earthward sweep scanner just before launch, to avoid an early alarm being given, and monitor the other instruments to prevent them being redirected as before. Then we must try to set up a watch, close observation internally and externally, including the behaviour of everyone on board, particularly the new arrivals."

"I don't see how we can manage to watch that many people and monitor all the systems." said Rai doubtfully.

"We'll have to find a pretext for bringing them all together. I think this time we'll have to trust senior staff. They can help us watch everyone. Two of us can monitor the scans."

"It's a wild plan." said Brandon. "There may be no reaction and we may miss it if there is one – so a negative result won't eliminate anything or anyone. Still, we won't know any less I suppose and we are desperate for explanations."

"What about my psych evaluations?" asked Rai

"That might be a good pretext for bringing the shuttle people together, if you can manage a friendly justification for it. We'll have to think of another for the rest, perhaps a warning of minor systems problems. I'll try to arrange my missile launch now so let's meet again when I know the timing. I'll let you know."

Surprise!

Caz extracted herself from the suit and hung it next to the airlock. She paused, enjoying the space, the familiarity and the more human feel of the ship's crew quarters. She walked carefully towards the secured section, making sure her feet returned gently to the floor. The first they would know of her decision was her appearing through the door. She hesitated for a moment, knowing it was her last chance to change her mind about everything but then entered her personal code, followed by the word 'interrogation', the door clicked significantly and she pushed it open.

Mallinson was closest, still turning towards her, his face frozen in surprise. Mark Allans was already facing her on the other side of the food counter; he had a food canister in one hand. He too looked shocked. Then she saw Aleks, coming from the inner compartments in a hurry.

"Bloody hell, Caz, you should have discussed this with us! Apart from giving us a heart attack, you've just cooked your own goose."

His obvious concern for her made Caz want to hug him; in fact she wanted to hug them all. She needed physical contact.. "I just got the orders through, insurgency counter measures. Either I carried them out or I joined you – there wasn't a middle way." She kept the emotion out of her voice.

"You realise that you're likely to be affected by whatever it is, like us?" said Aleksi.

"I'd thought of that." she said. "I decided there are worse things – not many, but some."

"Worse than the investigation and experimentation Northern will subject us all to?" asked Allans

"Is that really going to be any worse than core re-education in military confinement?"

"She has a point, Aleksi." said Mallinson. "She's in a worse bind even than we are. We could at least be grateful for our lives."

Caz found herself alarmingly moved by this, tears threatening; it was partly the unexpectedness of sympathy from Mallinson, but it might have had the same effect coming from anybody at that moment, she realised.

" At least we have control and full use of the ship now." she said.

" I'm not sure what we can usefully do with the ship, but we could definitely do with some different company. Come in!" said Allans. "Aleksi is driving us all insane with his endless attempts to put an optimistic spin on events. A little cynical realism will be refreshing."

She walked in, looked from one to the other and then actually did hug each of them in turn.. Noone seemed surprised. She thought maybe Aleksi held onto her a bit longer than anyone else.

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SIGINT

Direct link conversation between Director Harding (observed) and Professor Ward-Hennicke (95% certainty) intercepted and decrypted on the fly by our agent at 10.32 EST today

conversation begins WH: Can you give me a time yet (?) H: About 5 hours away. WH : Communication of precise information (?) H: Encrypted laser beam to your specified location 30 minutes before Sufficient warning (?) WH: Should be OK - anything else (?)H: no - except that many are risking a lot WH: understood - I'll let you know result end of conversation

Our agent points out that despite knowing the approximate time of the laser message, he will be unable to intercept it or interfere in any way without giving himself away.

General Connors projected the message onto the small pyramidal display on the table so all three of them could see. "Very mysterious. I don't have any idea what this means. Any thoughts?"

"Only the obvious – they're trying an experiment, one that needs precise coordination between ground and the ISS." Colonel Harkness managed to sound apologetic and cross at the same time.

"I don't like not knowing what they're up to, especially that arrogant loudmouth Ward-Hennicke; he's invariably trouble. Most of all we need unrestricted access to that altered group, and down here, so we can work out how they are linked to our main problem." said the general.

"Well at least we didn't lose them to that missile." said the third, with no hint of warmth. "What demented loon was responsible for firing that at them and almost hitting the ISS. Anything on that Harkness.?"

"Well we are still investigating. We will pass on anything we find to your department of course."

"A blank my lord - I see. Is someone out of control? Was it a mistake – by your people or someone else – or is one of your rivals trying to cover their tracks by eliminating some of their experimental fallout?"

"I understand it is very embarrassing for you in your official role, Anton. I'm sorry it's not in the spirit or even the letter of the Neutrality of Space Convention." said the General tartly.

"None of us radiating much glory at the moment, are we? You are suspected of losing control of your own forces, General, and your intelligence chief is just farting about in the dark. What made the wretched thing suddenly abort? Divine intervention?"

"Let's hope it wasn't a competitor." said the General. "I'd settle for a human idiot regaining a little sanity at the very last moment."

"Technically possible, that close to the target?" Anton asked.

"I believe it is, though the chance of the manoeuvre being successful is very small, what with the signal delay and radar proximity detonation. Could have been just desperation and a large slice of luck." The General didn't sound as if he believed it.

"Aren't the alternatives worse? We'd be entertaining the notion of humans upgraded by some rival power or alien technology. "

"In intelligence we have to keep ourselves open to every possibility, however unlikely, though I admit this is a stretch even for us. The habit of mind in the UN civil service is probably more conservative." Colonel Harkness was taking the opportunity for a spot of revenge.

"The UN civil service likes believable facts, which your intelligence service and its informants have provided not a pubic whisker of. How are ever going to find out what is going on?" said Anton contemptuously.

"We do have somebody on the station, though they're not entirely reliable. They will certainly send us reports if anything that seems relevant happens but I don't think they can take effective action up there.." said Harkness.

"Seems to be a common problem."

"If you two have finished squabbling, perhaps you would each let me know what you can do to get those people down from the station and out of Ward-Hennicke's clutches." The General bit into the word 'clutches' with some savagery.

Anton Girardoux, UN special envoy from the Space Exploration and Neutrality secretariat, sighed. "Obviously the ISS is under our jurisdiction and we control its funding – in the long run. Acting as a refugee centre is certainly not part of its role and I can put pressure on Harding to offload them. However, he can always quote the overriding obligation to shelter and aid refugees to me, especially as somebody has been firing at them. There would have to be guarantees of their safety, a safe refuge on earth. He could well arrange for the media to highlight their predicament, which would effectively put them beyond your reach."

"Could you prevent that?"

"I would have to offer him something, both carrot and stick. I could point out that their presence may be endangering the ISS and its crew, that we don't know what they may have done nor what danger they may represent, so he would be in breach of his duty of care if he allowed them to stay. I could then offer him and Ward-Hennicke the scientific resources – and money – properly to investigate at some research establishment, with some of your people on board as pre-existing staff. Probably the best I can do."

General Connors looked thoughtful. "I suppose that could work. Harding's not unreasonable but Ward-Hennicke could be very difficult I think. Any more pressure possible?" He turned to face his intelligence chief.

"All I can do is to tell our agent to try to find out what is going on and to look out for any actions that might be construed as unprofessional, reckless or against the interests of the ISS; Harding is ultimately responsible for what happens there, particularly for what Ward-Hennicke does, since he sent him up there. The same goes for the actions of the refugee group; Harding is responsible for their continued presence and any effect they have on the station. I'll tell our agent to keep an eye on them too. They could try to get other members of the present ISS complement to be critical of Harding and Ward-Hennicke for endangering/misusing the ISS. That would help in any subsequent hearing."

"All right, that'll have to do for now," said the general. "We'll reconvene at the usual time for an update. I believe it is vital that we try to understand all we can about this group. As you know we think we've had another incident out there and have no way of knowing how it will affect things. Do your best."

‘Or our worst,’ thought Anton, as he followed Harkness from the General's lair.

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Cooperating with the authorities

Josh had been able to rest up a bit, though sleeping in minimal gravity proved difficult and strange. He still felt dizzy and sick at times but he was coping. He was now waiting for some general briefing in the largest enclosure he had yet seen on the station. The whole group were there and many members of crew and scientific complement he didn't know. Administrator Cummins and Rai were already waiting right in the centre. People were still floating in from different tubes, as if carried by converging streams into a spreading pool of people. Jim Carey was next to him – as usual, Josh realised..

"Any idea what's happening?" asked Josh.

"No, but I imagine it concerns us and our future." said Jim quietly.

Cummins cleared his throat loudly. " Everyone here will be aware of the recent extraordinary events. The UN are urgently investigating the missile's origins but it is clear it was aimed at the docking module and its occupants, not at us. This gives us no option but to treat the group, whose unprecedented arrival has placed such a strain on our resources, as refugees. Director Harding is working to obtain a safe refuge for them somewhere on the planet, where there is rather more room. Until then they will remain our guests, though I trust they will help us out any way they can."

"Director Harding has persuaded two eminent experts in relevant fields to help us with our investigation into the missile event, the earth tracking system failures and some anomalies in our own systems. One is Colonel Brandon, as you may know an expert in long-range weapons systems and counter measures. Professor Ward-Hennicke is the other member of the team; they are carrying out tests on our systems at the moment."

"We need explanations, answers. I don't myself believe it is at all likely that these will be supplied by any of us here but we cannot afford to exclude the possibility. Neither I nor anyone else involved has any interest in assigning blame. Any personal information provided will be shared only with those working to unravel these mysteries – and only on a need to know basis. S

Mystery 1. Why did the missile turn aside from its apparent target, the transfer module? It is just feasible, though highly unlikely, that equipment here on the ISS could have been used to interfere with the guidance system of the missile. It is clearly highly unlikely that anyone would have been aware of the threat in time to take such action – but it is theoretically possible. If anyone has any information about this, please let me know.

Mystery 2. For a period after the missile deflected, radar tracking was disrupted; the signal appeared to be so scattered that positional information was lost. We don't know what the mechanism was.

Mystery 3. Following the missile event, we decided to switch the orientation of one of the long range scanners from its current research task so it could be used to detect – er, 'upcoming traffic'.

When we checked the scanners, they discovered this had already been done. Nobody on the station has any knowledge of this apparently. Again, if you know anything at all about this, however indirectly, let us know.

Mystery 4. There has been an unusual amount of interference in our onboard wireless systems, causing occasional lags in control response times. It hasn't been much of a problem but we would like you all to monitor this. Please keep a record and let us know on a watch basis of any incidents of this type. If you have anything to tell me, I will give it the highest priority and guarantee confidentiality as far as is consistent with the safety of us all."

Cummins paused. Rai caught his eye and he nodded. "Scientific Director Rai would like to ask for the help of our refugees."

Rai seemed to hesitate a moment, took a deep breath and smiled at the four of them.

"I would like to carry out some tests on you all. As you know, there is no generally available treatment for the prion based diseases; the only path to recovery has been through neurological reconstruction, which is hugely expensive, very demanding of medical resources and expertise but also makes such fundamental changes to the nervous system, particularly the brain, that questions of identity arise. According to your own accounts you have all been through at least the early stages of a prion infection and by some mysterious process have been completely cured. Understanding as much as we can of what has happened to you seems to me of enormous importance, even greater in many ways than dealing with the other problems we have, however extraordinary. The tests will be entirely non-invasive, involving some scans, sampling and psychometrics. I hope you will agree to help."

"Why the psychometrics?" asked Jim. "I am sure we will all be willing to help with the medical research but do you believe we have been psychologically damaged by our experiences?"

"Rather the reverse," answered Rai. "After your experiences I would expect signs of stress, even trauma, but you all seem impressively well adjusted. However the disease itself does severe damage to the central nervous system and any cure would have to have profound effects on it, so your psychological state and mental health are integral parts of the medical picture.

Carey turned to Josh and the group. "Would any of you object?"

As Josh was about to join in the general shaking of heads and "No, of course not" he felt again that evil, probing intrusion and the sense of its powerful source racing towards them; he raised both arms in front of his face and pushed out. Blinding headache and a blaze of heat and light struck, making him stagger and fall to his knees, whimpering. Then it stopped and the threat was gone. He looked up. Everyone was staring at him in shock. Jim Carey took him by the arm and helped him upright. He was shaking.

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Angus and Stuart Brandon had arranged to meet in the small comms area.

"Can we dispense with the idea of an alien invader in earth orbit at least?" said Brandon.

"Yes, at least for now," said Angus. "Absolutely nothing on the external scans."

"So what happened to your missile?"

"It was deflected from its intended course by 30 degrees and missed us by a much larger margin than planned, safe even if it had been armed. The larger deflection also means that it is plunging towards the sun; it should have been in not too distant earth orbit where we could have examined its guidance system log."

"And the internal scans?"

"Showed a huge spike in interference at that time."

"So our refugee appears to be the source of that – and responsible for deflecting the thing. How is that possible?" Stuart Brandon as usual sounded personally affronted by events.

"It's not – but it seems to have happened."

"Where is he now?"

"In the medical unit with Rai. She is examining him and his implants. He was more than willing. Whatever is happening inside him is clearly as much a mystery to him as to us and he must be at least as disturbed by it."

"Why should he be different from the others? Their backgrounds are similar to his, aren't they?"

Angus raised his hands outwards in a gesture of helplessness.

"Well yes, except that he is the most recent recruit and was apparently the nearest to death – to complete meltdown of the central nervous system. I noticed that their leader, Carey, seems to try to keep him close by, too."

Stuart Brandon sighed. "I hate it. This is even worse than a hidden alien artefact or weapon system."

"I know exactly what you mean. People surviving lethal plagues and acquiring super powers as a result."

"I thought you were supposed to welcome the unexplained. Aren't you the maverick who enjoys questioning the accepted beliefs of science?"

"That's just the media persona I cultivate. In private I'm more conservative; I prefer the universe to stick to what little we know of its rules. This sequence of events is a supernatural fable. Where's the mechanism and who or what's operating it? Could it be coincidence, just chance – the timing of the spike, the missile deflection and Mr Reynold's vision and collapse?"

"I think I'd rather accept special powers than that level of coincidence – and it would leave us with three separate unexplained events. I am not assuming that he's responsible for everything, though – it could be his response to the spike or whatever. Let's wait for Rai's findings."

"We haven't even started on the ground tracking problem, but I'd bet the answer to that lies here and not on earth."

"No bet! It's only too likely the way things are going. Probably group telepathy and telekinesis." said Brandon bitterly. "What about the first missile? Was it at least under normal human and physical control until it deviated? Any news of who fired it and why?"

"Nobody has admitted anything. There is no record of the launch event on any monitors available to us. Nobody knows who or where or why – or even exactly when."

"But at least it didn't suddenly leap into being in mid-flight at the mental command of a super being or alien-human hybrid."

"Probably not, Brandon. Let's adjourn to the dining area, so-called."

Taking back control

Caz had had to go back to the module to restore control of the ship to the normal crew quarter interfaces. Putting on the suit had felt ghastly, traversing the inner space of the ship along the strut to the isolating chamber still gave her vertigo and panic symptoms and entering it made her nauseous. She would have liked one of them to come with her but there wasn't room.

Now she had to search through the emergency protocols to make sure she got the sequence right. To be allowed to restore control to do this she had had to lock the crew in the secure quarters again, which had made them understandably nervous. She just hoped the ship's computer wouldn't object when she unlocked them. She got through the procedures successfully, after lying her way through a series of questions about the security precautions.

She returned to the main hull, freed herself of the wretched suit and went to release the others. The ship computer allowed her to activate the door release and she joined them. She thought she could detect relief on their faces, or at least on Mallinson's; Aleksi was smiling but Allans had turned away as she came in.

"I take it that all worked out ok?" Allans was not concealing his anxiety.

"I'm relieved there was no interference from the computer when I opened the door. I told the computer you were all incapacitated in restraints. We should be OK now I think."

"So let's work out what we should be trying to do. Difficult when we know so little about what we are heading into." Allans turned to her. "At least you provide a different perspective on things."

"What do you mean?"

"Well, as long as you are unaffected, you will be seeing things from a viewpoint closer to a normal serving officer's."

"Even though I am collaborating with the enemy or at the very least party to a mutiny?"

"There you are. Clearly a different point of view." said Aleksi.

"How likely do you think it is that it will happen to me?" she asked. She was half expecting to wake up weirdly altered, constantly checking herself for signs of change and foreign influence.

"It does seem quite likely now you're out of the capsule and unprotected. There's no reason why you should be exempt. If the trigger or whatever is still present it must be very likely that it will happen to you." said Allans.

Caz was shocked by Allans' calm assessment of the probability even though she had half expected to be under mental attack as soon as she left the capsule. She imagined something crawling into her brain while she slept and shuddered.

"Isn't there any way of resisting it? How long did it take? How did it feel?"

There was a pause. Then Aleksi said, "We don't know for certain when it started but it happened mainly in our sleep. I actually fell asleep on watch which I had never done before - when I missed that call."

Mallinson went on for him. "At first I couldn't quite believe what was happening to me and tried to hide it from the others but I soon realised that everyone was in the same state. It was Aleksi who broke the ice."

Allans chipped in. "It didn't all happen at once - but our conditioning was being dissolved away and with it our programmed obedience. There was also a growing sense of well-being, despite the confusion."

He looked around for agreement. Aleksi nodded "And since you must be wondering, we didn't know what to do about you. At first we just carried on as if nothing had happened but we knew that you had orders to take drastic action if you suspected what had happened. As the alert went on and on we got extremely anxious about your mental state, mainly for our own sakes but also for yours. We didn't want a half-crazed Caz exercising the power of life and death over us, so we tried to get you to believe that the continuing alert was a computer malfunction, which in a way I think it was, but we were too eager and too clumsy. I'm not sure what else we could have done though."

"The truth is," said Caz. "I'd been very uneasy about Command's obsession with the threat of remote recruitment; the whole concept seemed so wildly paranoid, but your sinister siren male chorus changed my mind and I certainly don't have the slightest doubt about the threat you pose

to Command now."

Allans laughed. "OK, but your actions have now made your view of Command's values very clear – otherwise we'd be dead."

"The fact that I couldn't bring myself to follow that order doesn't mean that I totally reject Northern's authority," she retorted, but as she was saying this she realised that it didn't add up. Her decision meant just that; she found the order to kill them inhuman and the organisation that issued it monstrous. She hadn't been through the process but she was no longer a Northern officer.

Custom Upgrades

Josh was getting on very well with Amarjit Rai. She had been open about what she was doing to him and why and he shared her excitement over a possible cure for the prion diseases, even if he was afraid his recovery didn't promise that exactly. He couldn't help finding her curiosity about the changes in him rather flattering. He was waiting for her to return with the results of the third set of scans; she had, he realised, been gone a considerable time, longer than previously. The earlier ones had found nothing out of the ordinary, except the absence of damage to his nervous system, which, though inexplicable medically, was no longer a surprise to either of them.

He saw her now propelling herself gracefully out of the tunnel towards him.

"Have you found anything?" he asked.

"Yes, though I am not sure what it means exactly. It's to do with your implants."

"They're just wireless news and information interfaces; several people at work had them."

"Yes, you're right. The implants themselves are nothing revolutionary, not even quite up to date, but the neural connections are something else. The standard type neural interface that is used with these devices is common enough, pioneered in the last decade, fairly crude but safe and reasonably effective – but yours is entirely new to me and appears far more ambitious. "

"That can't be right. They were done by the institute's medics in the usual way. It was just routine."

"These certainly weren't. The neural cords are far thicker and more intricately connected to the tech than usual – and also denser, more robust and better shielded than any other nerves in the body. They would be capable of carrying a much higher charge and more information than normal. There are also what appear to be new organics added to the tech, actual bio-mechanisms made up of various types of organic material but with a great deal of this enhanced nerve fibre enfolded in them, almost new organs. You haven't had any upgrades, dark or otherwise?"

"No, certainly not. I wouldn't have taken the risk even if I had had the money. But doesn't that mean these changes have just grown in me? How long would that take?"

"There's nothing to compare the process to, no records of anything like it. It appears biologically impossible anyway – normal nerve growth is much slower than this."

"Is all this stuff dangerous? I mean – what does it do?"

"I really have no idea. If you mean dangerous to you, possibly, though you seem to be surviving it very well, despite the trauma you suffer when the internal alarm triggers. Ward-Hennicke and Colonel Brandon are expecting a report from me and we will no doubt discuss the results. I am going to suggest that you stay for that, if you agree. I think your account of your experiences could be very useful. They can be here in a minute if you don't object."

"To be honest the more help I can get in understanding what's happening to me the better. I'm OK, but the strangeness and the scale and speed of it all is dizzying."

Josh expected Rai to message the two on the crew interface but she turned and called out. "You can come in now, gentlemen." Ward-Hennicke appeared at once, pulling himself skilfully along the tube, Colonel Brandon a little more gingerly behind him.

Josh felt, despite their friendly greetings, that they were looking at him much in the way they would an unexploded intelligent bomb walking about on the ISS

"Josh tells me he is happy to help in any way he can. I've been explaining what the tests and scans have found so far and I've just sent you some of the images and measurements from them. Of course we don't have any details of the internal structures of the thickened nerve bundles or of the additions to the hardware." Rai turned to Josh and smiled, "and we can't get any without opening him up, which he might not be so cooperative about."

"So," said Brandon, "Are these changes made up of normal human tissue in your opinion?"

"Yes, I think so, though there are above average amounts of copper showing up in the deeper levels, though exactly where I can't see and of course why is totally beyond me. It's keeping me humble."

"As you probably know, Mr Reynolds," said Brandon, " your implants provide very short range but reasonably wide band and sensitive reception of radio communication and narrower band, short range broadcast transmission. The problem we are addressing is whether your adaptations and new structures could enable you to track an incoming missile and send an accurate and fairly powerful beam of instruction to interfere with its guidance systems. I don't want that to be true but things seem to be pointing that way rather relentlessly."

"Something we haven't explained is the second missile." Angus Ward-Hennicke looked a little sheepish. "I'm afraid it was a desperate and possibly crazy experiment of mine of the ' set fire to it and see what happens' variety. I apologise but we simply had to get some idea of the

mechanism involved or where it came from. It was an unarmed missile programmed to fly close to the station and move off into a high orbit. In fact it suddenly veered much further than programmed so that it was lost into the sun. At that moment you apparently experienced another traumatic 'warning' event. Could you describe that experience to us as exactly as you can?"

"Some of it is hard to put into words. There was a sense of something powerful and deadly rushing towards me."

"Could you see the object? Did it have shape and colour?" asked Rai

"No, just a sense of a threatening object getting closer, larger, very, very fast."

"So you didn't recognise it for what it was, a missile?" said Brandon.

"No."

"So was it just the threat that made it all so traumatic? I mean you collapsed for a moment, didn't you?" Ward-Hennicke sounded sympathetic but Josh wasn't fooled; his interest wasn't based on compassion.

"I was in considerable pain; I felt as if I was on fire inside – chaotic sensations of heat and light, then, even worse, a violent rhythm pounding in time with a blinding headache. My legs gave way and I had a terrible sense of weakness."

"A violent rhythm? Heart beat, muscular contraction, what?" Rai was frowning.

"I can't explain, must have been in my head, but it was if everything was contracting and expanding without limit in an accelerating rhythm."

The three looked at each other, rather blankly he thought. Ward-Hennicke gave the slightest shrug.

"How did it end?"

"As if someone had flipped a switch – all gone, no threat, no heat, no pain, nothing, just some weakness and confusion – and relief, vast relief"

"What do you make of it yourself?" asked Ward-Hennicke.

"What? Well, I suppose after what Rai has said about the changes to my implants, it could only be those really. Though I've no idea how it works. I'm not conscious of the implants at all, except when the 'warnings' happen, if they are from the implants."

"Well, that's what we are coming to believe, though it's the organic changes in you that are the most significant perhaps. The warnings themselves are hard enough to explain but what happened to the missiles is outrageous." Colonel Brandon again sounded personally offended.

Ward-Hennicke sighed. "One aspect of these capabilities is that they seem entirely involuntary and so the question arises as to who or what is in control of them – since you, by your own

account, don't seem to be. To my mind this links with another question 'Why are you different from your fellow miracle survivors?' As far as we know they have none of these abilities."

Josh had been wondering that since the first incident, deep underground. He felt that he had been randomly singled out and used but it was a small cost to pay for his extraordinary recovery and at least one of the events had saved him and his friends from being blown into pieces in space.

"I don't think I can help you much more at the moment," he said. "I am just as eager as you are to understand what's inside me. I don't know if Amarjit has any more tests for me but I will do whatever she wants."

Rai smiled. "I have plenty of data to examine at the moment. Of course what would be ideal would be to have you under examination when the implants become active, but there's no way of knowing when that will happen, if ever, and there are reasons why we all rather hope it won't. For now, you are free of my interference."

She glanced at the other two men. Ward-Hennicke shook his head slightly and said "You might as well rejoin your companions. Thank you for telling us what you could. Please let us know immediately of any developments."

The three watched as Josh made his own way out. Colonel Brandon looked rather fiercely at Rai. "Is there really nothing more you can do at the moment? I am very nervous about an individual with the power to take over guidance systems and paralyse communications and tracking systems, especially when he seems to have no conscious control over those abilities."

"I will examine the data I have very carefully before I do anything. I am considering asking him to wear a monitoring device to give us immediate notice of activity and also record live biodata – but I need to work out exactly what to monitor, where to house a device and how, what tolerances it will need and what its sensitivities should be. I have made the data available so far to both of you and I will let you have anything extra as it comes up. I will need your advice: on voltage tolerances, radio frequencies, possible built-in countermeasures and anything else that needs solutions. I'll get back to work now I think."

"Have you told him about the monitor idea?" asked Angus Ward-Hennicke.

"No, but I don't think he will object. Like the others he seems of a remarkably equable temperament and is telling the truth when he says he also wants to learn as much as possible. He trusts me; we get on well together."

"Of course," said Ward-Hennicke, "You'd learn more with a more invasive technique, exploratory surgery."

"Believe me, I've been tempted. However, moral considerations apart, since I have no idea what I would be exploring, the risk of damaging the structures would be too high and there is also the possibility of triggering built-in safeguards, since this appears to me to be intelligently designed,.

There would also be substantial risk to the subject, since we appear to be dealing with energy levels higher than those usually encountered in the human body and I certainly don't know how the surrounding tissue is protected."

"We might get to the point where the risks involved are outweighed by our need to understand and control events." said Brandon.

"I hope that doesn't happen. I should warn you, I would be most reluctant. It would take a very severe threat to persuade me."

"Oh believe me, we understand that and we agree with you. It's just that we don't know what we are dealing with," said Ward-Hennicke

"I think I will get back to work." Rai left, pulling herself into the tunnel adroitly. She didn't glance back at the two men.

"What we haven't any idea about at all is the radar inhibition. Are we assuming that he's responsible for that too – if unwittingly?"

"As usual we are facing unpleasant alternatives. If he isn't, then something else is at work, an agency which we can't find and know nothing about. If he is, then we have something in our midst with frightening powers, more or less those of a high-powered and sophisticated electronics warfare system."

"Hmm, somehow phase modulations and other distortions would have to be made over large areas of the station outer shell without permanent change, remotely and with no discoverable device. How is that feasible, even in theory?"

Angus Ward-Hennicke half-closed his eyes. "We'll have to think it through from first principles. If we can't come up with at least the beginnings of an explanation then I fear we are back to looking for an external agency, an electronic warfare capability somehow hidden yet within range."

"All right. Let's begin with materials. Plenty of high grade steel and titanium, both fairly poor prospects for electro-magnetic manipulation in normal states. No, wait, we need to think about the sensors. They'd be the first suspects, though I can't think how. What have they got here? The experimental collision avoidance sensors, fairly high powered lidar and microwave instruments for surface and atmosphere observation, the lidar moon mapper - there are a great many instruments these days. The main problem is power. Even without understanding the mechanism I am reasonably sure that none of these emitters have sufficient power to disrupt the echo to that extent, unless several of them were working together – in phase somehow so that they reinforced each other."

"So let's examine the logs of all the instruments first and see if we can rule it out as a theory - or maybe even confirm it. Agreed?"

"Yes, though I doubt the logs will contain enough detail to do more than suggest the possibility - but if they show the instruments not even powered up at the same time then we'll know it isn't them. Let's go and talk to some people."

Brandon turned from Ward-Hennicke and hauled himself down the exit tube. Ward-Hennicke followed, more slowly.

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Where would we go?

"Is there no way that we can get to the sealed orders before we arrive?"

Mallinson seemed to be just expressing frustration rather than asking the question seriously but Allans answered anyway.

"We have no idea where they reside on the ship's data systems but they will be time stamped and encrypted and trying to access them them will probably get us locked out of all system access."

physical liberation had left them without any real freedom of action. They had theoretical control of the ship but interfering with its flight before they were through the deceleration phase and aligned with the planetesimal's orbit would leave them lost on the edge of interstellar space. They were gathered in the briefing room/dining area.

"You're right, we can't afford to get shut out of the system," admitted Mallinson. "Let's think things through further. Do we know how many ships are out here?"

"As far as we know we are the fourth to have been sent; one of the others returned safely without completing the mission; it got there but came back too early or something. Presumably contact with the others has been lost. That's if we have been told the truth," Allans shrugged and spread his hands. "Something has clearly gone wrong with the other two missions. I mean we are now supposed to be a relief ship for Intrepid, not just support, and they are of course a relief ship for Endeavour. We'll just have to react to what we find."

"To the condition of the ships and what we learn if we succeed in making radio contact, " said Aleksi.

"So what does that depend on?" she asked.

"Well, first I suppose if there's anyone aboard able or willing to communicate. Then on their attitude to us -whether they're still good little Northern soldiers. They may even have been briefed against us by Command."

"Signal delay is too long, unless we wait weeks before contacting them," said Caz. "Anyway I

signalled Command I had carried out the orders."

There was a moment's silence.

"What about the other two major rival outfits? Presumably we're armed to prevent them muscling in." asked Mallinson

"Who knows? Maybe on the way, maybe already there, maybe not bothered. Pacific is the most likely, but I have no idea what their technical development is like or whether they actually know where we're going." said Allans.

"Or care, for that matter," said Aleksi. "And what do we know of the object/target?"

"A lump of rock that is possibly the source of mysterious radiation that appears to be modulated in a non-random manner – or so the rumour goes. Possibly connected with the compromising of crews i.e. us. Possibly an alien weapon. Possibly not. Very remote chance that it's an experiment by an earlier independent space project or even a weapons experiment by a rival, though we have no evidence anyone else has been out there."

"Do we really believe the rock has anything to do with what has happened to us?"

"Well, the ship claimed to have detected a mysterious, intrusive signal at that time but I don't see how a signal on its own could have such profound biological effects. Perhaps as a trigger, but triggering what?"

"How long will life support operate? What fuel margins do we have?"

"The emergency hasn't changed things much; the Meissner effect and other protective measures put an extra strain on the reactor but it's not left us too badly off. As things stand, life support is OK for the journey back plus a bit under forty days with reasonable economy. We don't have margins for extensive cruising about, unless we find ways of refuelling, highly unlikely – but anyway, where would we go?"

A hard man to read

"This is a highly irregular situation, Harding, that you have landed us in." said the Commissioner. "I might almost say absurd. The ISS is by treaty and by definition off limits for any political activity and is therefore not to be used for asylum or as a refuge. Indeed I am receiving reports that its functioning as a scientific research centre is already compromised by the sheer numbers and their drain on its resources; there was the unexplained temporary loss of ground tracking too, which happened just after their arrival."

Director Harding had been summoned to the UN by Commissioner Leonhardt. This was unusual. The Commissioner, though high up in the UN Hierarchy, was not directly in his line of command. He looked around the large office with its picture windows overlooking the river and its comfortable armchairs; he was delaying his reply. His uncertainty about Leonhardt's attitude

and the edge of excitement the decayed grandeur of the UN building always gave him had combined to make him unusually nervous. The Commissioner was a hard man to read but not known to be aligned with any particular interest group; he sounded more exasperated than angry at the moment.

"I'm not aware of any loss of research functionality; my understanding is that the refugees are making themselves useful. Anyway, what do you expect me to do?" he said. "They are refugees after all. Who's been complaining?"

"My deputy, Anton, claims he has had reports from members of the scientific community on board that research is being delayed and under-prioritised. "

"I have been in daily touch and nobody has mentioned problems with research. There are obviously pressures on resources. How has your deputy received reports which haven't gone through me? Comms on board are limited – no-one can just pick up a phone and call someone. Who or what is the channel?"

"You might be interested to know that I have also had a formal request from the Northern Group to 'return' the refugees to their jurisdiction on the grounds that they have removed and illegally made use of patented and classified technology for which no licence has been granted."

"I don't suppose they say what technology?"

"As a matter of fact they do, but it is very odd indeed. They say military personnel defence technology, designed to resist subversive attack. They accuse the de facto leader of the refugees, what's his name –er, Caly – no, Carey – of absconding from military hospital with their patented technology and illegally using it on himself and others."

"That does have some elements in common with Carey's own version, but are Northern Group claiming that their personal defence technology is responsible for miraculously curing a range of neurodegenerative prion diseases?"

"I don't think so. I'm not sure they believe in all that. What I understand from Anton, who has, by the way, very ready access to General Connors," the commissioner at this point fixed him with a penetrating stare, "is that Northern are frantically trying to discover the agency for remote recruitment of their own officers while on space missions and suspect it might lie in their own personnel defence technology, or 'deep conditioning' as it's commonly known."

"That's very invasive stuff, isn't it? Rumour has it that it involves surgical restructuring of major neural pathways and control type implants, with considerable risk to the patient. Wouldn't that be illegal under international law anyway?"

"Of course it would, if it were possible to prove it. Oddly enough, no member of the Northern Group space exploration force has come forward to offer themselves as evidence."

Commissioner Leonhardt was clearly impatient of such naivete.

"So what's the idea? Their technique is having unforeseen results, someone has been making mistakes, what are they thinking?"

"I'm sure they don't know; they have just realised that all the cases of 'recruitment' have occurred in officers who have undergone their most advanced defensive conditioning. It makes their senior command paranoid; they see enemy agents everywhere, maybe on the inside deliberately undermining the conditioning, maybe somehow exploiting the conditioning remotely and most extravagant theory, maybe affected by something from the exploration target, the mysterious Oort object they have failed so far to investigate."

"They aren't the only the only ones considering outrageous explanations. What's been happening on and around the ISS defies scientific explanation and is driving the team up there distracted."

"I had heard. As you know, the Northern Group provide us with a significant proportion of our funding and of course military support for peacekeeping operations, but the UN can't be seen to be delivering refugees to those they claim are persecuting them and I would like to know as much as possible about what is going on – and *before* General Connors, if possible. My briefing from O'Donnell on the ISS refugee situation was after the event I'm afraid."

"That may have been my fault; events were moving very fast. May I ask if, as a security precaution, you intend to keep Anton out of the loop for now?"

"It had occurred to me. I'll do my best. May I in turn suggest that you investigate security on the ISS?"

"Of course – and I will make sure that communication to ground is monitored."

"I want you to issue a statement saying that the refugees presence is temporary, that their status is under investigation and that the ISS is functioning normally in every way, including the carrying out of its vital research."

"I'm happy to do that. Can I say that the refugees are assisting? They are, in fact."

"Yes, you can say that as long as you make it clear that any arrangement is temporary and under review. I in turn will say, probably at a press conference in an hour or two, that I have every confidence in you and the team's ability to cope with this short-term, emergency situation."

The Commissioner gave Harding an odd look. "You are involved in extraordinary events, not least the apparently miraculous spontaneous remission and recovery from these prion based afflictions, which are a growing threat, if not yet on the scale of our other health problems. I thought you would like to know that I am not the only one at UN headquarters who understands the possible implications and that we will do our best to keep Northern and any other parties off your back. Do what you can to avoid embarrassing us and please keep me discreetly informed of any developments."

Commissioner Leonhardt stood up. Harding stood too. "Thank you, Commissioner, for your

support. It is a great relief. I will address the security issue immediately"

"As will I!" said Leonhardt with some emphasis. As he made his way out past a small queue of those waiting to see the Commissioner, he caught sight of Anton in earnest conversation with a clean-cut, military looking type in a side corridor; Anton either didn't see him or pretended not to.

Testing the water

The Resolution's pre-programmed navigation had brought Caz and the others to within a thousand kilometres of the rock in a parallel orbit and had automatically spun up the hub for artificial gravity.

The Intrepid was parked much closer; even under magnification it appeared tiny, its lights flickering slightly due to its rotation. The mostly black body of the object was only about 40 times larger than the spaceships and very roughly ovoid, its surface craggy and splintered, apart from one small flatter area, which looked as if it had been melted and re-formed.

They had made direct observations of the ship. They saw nothing out of the ordinary; occasional transits by small largely spherical objects, presumably probes, to and from the planetesimal. Of the Endeavour they saw no sign.

Allans summed up the problems of contact. "We don't know if they are still loyal Northern officers. It's probable they've been out of contact with Command for ages as we haven't had any news of them. If they are like us, I mean except for you Caz, they'll be afraid that we have orders to incapacitate or kill them. If they are still good little soldiers, then we will need to put on a performance as committed officers, at least over the radio for a while."

"Something must have happened to them," said Caz. "Otherwise Command wouldn't have changed our status to relief."

They tried to make radio contact with both ships but got no response, whatever frequencies and call signs they tried.

Eventually they decided they would have to assume that someone could hear them and try hinting at their situation to persuade them to respond.

It was Allans who had first suggested it. "If someone can hear us and isn't replying, then the most likely explanation is that they are like us. Unrecruited officers would follow orders and make contact. We need to think of something that might reassure them without giving too much away."

"Caz, you might be able to anticipate the reactions of a loyal officer better than we can, since your change of heart was forced on you by the grim choice facing you, not a mental reboot. I told you your different viewpoint would be valuable." Aleksi said.

Caz suspected they were partly glad that she had not been reached by whatever it was that had recruited them; despite their claims to be better versions of themselves, she suspected they had to be missing their familiar selves and certainties in some way. Noone had speculated about her apparent immunity, at least out loud, no doubt assuming it was down to the isolation measures, but there was something that bothered her about that explanation.

"Well," she said, "if they are unchanged, they won't know how hippily full of hazy good will recruitment seems to make you tough military men, but if they have been recruited then that brand of naive idealism might be something they could recognise and respond to. Is that different enough to be valuable?" she asked.

They didn't take offence; Aleksi actually grinned at her and so they persisted in their attempts to raise the two ships in a slightly more informal style. In the end the breakthrough call came from her.

"Hello Intrepid and Endeavour. This is Henderson aboard the Resolution again. Please respond! It's lonely out here in the Oort Cloud. Are you OK? Please respond."

After a full minute the reply came, "Hello Resolution! This is Nikola Berkeley on Intrepid. What is your status?"

"Status OK. We have some questions for you."

"So have we for you. Have you had plain sailing?"

"Not exactly. Our situation out here, so far from home and from Command, changes perspective, don't you find?"

"Not a very scientific or disciplined thought, Resolution."

"Do you have orders regarding us?"

"Unfortunately we are having severe difficulties with the comms link to Command."

"That is our experience, too. There are many difficult decisions to make."

"You say 'our'- so you are acting as spokesperson for the crew?"

"They are with me now, listening in. What about you?"

"Yes, we are all here together."

"So, in the absence of orders from Command, what are your intentions?"

"To carry out careful, non-invasive and non-destructive investigations of the object as far as we are able and have resources for. We have begun."

"What do you plan to do if a ship from a rival power actually gets here?"

"Ah, an interesting question. Before I answer, perhaps, since you are in a sense reinforcements,

you could tell us if you have orders covering that eventuality."

Caz muted the mike and looked at the others. "Time to take a risk?"

"We can't just sit here nervously biting our nails," said Aleksi. The others, one by one, nodded.

"Oh well," said Caz and released the button.

"We have no intention of taking aggressive action against anyone. We believe everyone has an equal right to investigate."

"Noble thoughts! I assume, though, that you are armed, that the ports we see house weapons?"

"We have no intention of firing on anyone."

"That doesn't seem to accord with Command's plans or standing orders very well."

"We have had, as a crew, a fundamental change of perspective – as I hinted before."

"A fundamental change? I see." There was a pause and the carrier wave appeared to shut off.

"Presumably, they are conferring, just as we did," said Allans. "I think this is decision time."

They waited. The link was silent for a minute or more. Then the same voice said carefully:

"We must admit that our own perspective has changed in probably similar ways. Are you all of the same mind?"

"If not all precisely of the same mind, at least in the same boat."

"So maybe we could work together to come up with some kind of a plan."

"We can only try. Any news of Endeavour?"

"We have been unable to raise Endeavour. It doesn't look good."

"Likewise. No response is very worrying. Do you know where she is?"

"We have no idea."

"What about the object?"

"Apart from the fact that it seems to have been altered artificially, we have discovered nothing very much. There is an exceedingly faint heat trace from inside, possibly a power source somewhere, but it doesn't appear to be doing anything. There is one odd area of artificial looking surface, small, more or less flat and different in composition. We were instructed to do no more than use robotic close monitoring and surface sampling until we had back-up, you in other words. Sampling of the flat area failed; the robot malfunctioned, reporting a problem with accurate measurement of the drill depth necessary; we haven't followed that up yet. Sampling of other sites showed nothing spectacular, plenty of useful water ice, some surface regolith and a rocky silicate rich inner core. We have hours of recording of drone observation from all angles. It's artificial, weird and we don't believe anyone on Earth could have made it, even if they could

have got here – but it's giving next to nothing away."

"So you haven't been in contact with Command since that instruction to wait for back-up?"

"Yes, that's correct. Like you we have had no recent communication.."

Caz muted the link. "Can we assume it's for the same reason – safe to meet up do you think?"

Allans looked around the group; there were nods. "Sounds OK. We have little choice really."

Shared Values

The two ships now lay equidistant from the dark body, each rotating to simulate gravity. The seven of them were crowded into the mess of the Intrepid 2, which was smaller than the Resolution, unarmed and with a crew of only three. Allans had persuaded them that its crew had a type of seniority by being there first and being recruited before them, so they had agreed that full docking with them would seem too close to boarding and taking control.

"There has been little information from the passive robots and drones we have used. There is certainly a power source; its output varies but its potential is unknown; no radiation worth worrying about or to provide clues about the source type. No controls or interfaces have been discovered. We haven't found the transmitter or even location of its beam transmissions. No advance really on what you told us originally." Mallinson was displaying the data on the main screen.

On their arrival through the airlock there had been handshakes and hugs, followed by a rather nervous and hesitant exchange of information and explanations. They had eventually more or less convinced each other that they were essentially in the same boat and not a danger.

Caz knew they were all hoping face to face discussion would lead to clearer ideas of what to do than the days of cagey radio contact but she actually felt that things were beyond analysis and planning. The recruited carried on, relentlessly optimistic in their altered state. The LACC officer of the Intrepid, Bjorn Larssen, seemed to share her bleaker outlook; he was also apparently untouched by the process. Even if Caz and Bjorn's grim view of their future proved justified, just being together was worth a great deal to her, to all of them she thought.

"It's very disappointing that we haven't seen the slightest sign of any interface or control system. Nothing whatsoever to play with."

That was Konrad, the comms and human interface man from the Intrepid. On first impression he seemed human enough in a geeky way. Nikola Berkely, navigation and senior officer, was charming and cheerful, but Caz noticed a tough determination about her.

"I suppose the obvious next step in the investigation is to do a manned visit to the strange area on the rock." said Mallinson.

"But don't we need to think about that? Do we want to risk our lives learning things for Command so they can execute or reprogramme us without regret once they have extracted the information." Caz felt survival was considerably more important than scientific curiosity and benefits to mankind.

"But if we can keep out of their way and find refuge somewhere, anything we discover could become a powerful bargaining chip," countered Mallinson.

"Where are we going to find anyone stupid enough to offer us refuge against Northern Command?" That was her opposite number, Bjorn Larssen.

"United Nations?" suggested Konrad without much conviction.

"They're terrified of our masters." said Bjorn.

"Well, I don't know about the rest of you but I don't think I could just turn round and go home without having a look. Here we have something absolutely extraordinary, something that may have been engineered by a spacefaring civilisation. Surely we're not going to say we're too busy or too careful," said Aleksi.

"I agree, though I still don't want to assume anything as outrageous as alien manufacture" said Nikola. "But somehow I think it must be at least part of what has happened to us, so we have a personal stake in finding out all we can."

"Apart from us two," said Bjorn, nodding at Caz. "I don't mean I'm not interested though. Maybe we could find out why we're different."

"Only your mother could tell you that, Bjorn." said Nikola. "As for Caz, she was safe in isolation I presume."

"You mean you weren't?" said Caz in surprise, turning towards Bjorn.

Bjorn looked round at his fellow officers. "We had a problem. There was an emergency alert, a mysterious incoming signal, as with you, not long before our midpoint and the deceleration manoeuvre, but the isolation module had suffered a power outage; the circuit had to be replaced, life support needed restoring; the internal temperature was near absolute zero."

"I'm only asking, but the computer must have reported the outage?" said Allans.

"It reported it shortly before the alert." said Nikola.

"So how long was it before you went into isolation?" asked Caz.

"Well, obviously systems needed testing after repair and it took time to get things sorted – so it was nearly eight duty periods."

"Two sleep sessions?"

"Yup."

"So the rest of you might have been reached before Bjorn went into isolation!"

"We were," said Nikola.

There was a silence while the four from the Resolution looked at each other.

"But you didn't notice the change? You just went off into isolation" Aleksi asked Bjorn eventually.

"Oh I noticed. They told me. They believed I had been recruited too and the situation revealed itself as they tested the water so to speak." said Bjorn.

"How did you react? Didn't your training take over? You didn't follow procedure?" asked Caz.

"They had had plenty of opportunity to overpower me and take over the ship while I was asleep, so their protestations of good will and saintly pacifism were more believable. I went into isolation because it was orders and because I didn't like ending up the same way, like an ageing Hippy, nor being charged with mutiny, but I got bored and lonely as the emergency went on and on without a resolution; I didn't believe in them as a threat and I gambled that if I hadn't been got at already then maybe it wouldn't happen. Even if it did then it probably wasn't as bad as staying in isolation and finally being ordered to kill them. We had gone on talking for ages and they just seemed a bit soft in the head, like now." Bjorn cast a beaming smile in their direction.

"I know exactly what you mean!" said Caz. "And in the end my situation and the reasons for my decision were very similar, though it nearly went the other way."

"Yes, we did things worse, didn't we!" said Aleksi, looking round at Caz and the others for a moment, "Proper fuck up. But our emergency situation went on and on, just stuck, like yours."

"Yup, something really bugged up the system, as if the computer was paralysed with indecision. What kind of signal would do that?"

"What have you told Command?" asked Allans.

"Nothing," said Nikola. "We assume they will have received the alert by now but we haven't used long distance comms since; in fact we cut it out of the power circuit to give the impression of failure. Didn't know what it was safe to say."

"Wait!" said Mallinson. "If it wasn't the isolating module that protected Caz, then what was it? Why are they immune? What makes her and Bjorn different from the rest of us?"

"Who knows? They don't seem to have much in common, except they both hate isolation. Very human." said Konrad.

"I wouldn't have thought that LACC officers were chosen for their humanity, no offence to either of you." said Aleksi.

"Well maybe not – but they're a recent addition to crews; that's why they haven't had the

invasive neural reorganisation of deep training we had. You haven't, have you?" said Nikola.

Bjorn shook his head. "Just the non-invasive specialised LACC stuff over a couple of months," said Caz.

"Possibly some hypnotic suggestion we can't remember. Doesn't seem to have been that effective," said Bjorn.

"And I heard a rumour that that wasn't only due to lack of time but was part of the plan. They were concerned that there might be a sleeper agent or something else interfering with the neural reprogramming and it was the deep training itself that was causing the remote recruitment problem. That's why the LACC officers were given only the standard training – but there are many rumours." said Konrad.

"So do we think that's what's happened to us – nobbled by a rival gang?" asked Aleksi.

"I don't believe that's possible; none of us who have been through it feel damaged or disabled in any way. If our implants had been hacked by an enemy, we'd be permanently incapacitated, dead or reprogrammed to work against Northern." said Allans firmly.

"Though it comes to the same thing really, doesn't it?" argued Bjorn. "You are incapacitated as agents of Northern – and the rival power theory would fit in with a remote signal trigger too. It would let Command believe deep conditioning was working until we were far enough away to be beyond saving and the mission was lost."

Caz privately agreed, but Konrad came in with, "But then why so far from Earth - all the way out over half way to the Oort Cloud? And who has that level of remote signalling technology - nearly undetectable and apparently precise at astronomical distance?"

"No-one we know of," said Nikola. Nobody challenged her and there was a silence until Mallinson said, as if working it out as he spoke, "It would seem logical to assume that the object is responsible for the signal, as it happened as we approached, but the kind of change we've undergone couldn't be produced by a radiating signal, however powerful or complex."

"Well," Allans said eventually, after another puzzled silence, "nothing we can do about that mystery at the moment. Let's have a go at the other one. Should we organise a manned investigation of the object?"

"There is the problem of the robots - they will record everything for Command. If we don't want to hand anything we discover over to Northern, we will have to find a way round that." said Nikola.

"Does that really matter?" asked Bjorn. "We don't know that there is anything useful to discover or that the robots will ever be in a position to transmit the data to Northern."

"They are designed to keep their data intact and go on transmitting it until they are told it has

been received. Whatever they find, Northern will try to make military use of it, you can be sure of that."

Nikola sounded impassioned and looked around as if for support, which she got from all but Bjorn and Caz herself. Caz agreed with Bjorn; this was of little importance compared to their own survival.

"Luckily they haven't found anything significant so far as we know. I'm sure we can manage without the autonomous robots, using the semi-automated analytical tools under direct manual control. It wouldn't be right not to investigate while we have the opportunity. It's too big a deal – we owe it to humanity. " said Konrad earnestly.

Caz sighed and Bjorn gave her a sympathetically weary smile, but neither of them objected. They settled down together to plan a first manned expedition.

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Orbital Investigations

Angus had found a private spot in the meals area to speak to Jim Carey.

"What exactly would we be looking for?" asked Jim.

"Anyone on the ISS staff apparently using comms unsupervised or appearing to be in contact with someone on the ground. Anyone expressing concern about your presence to other staff, claiming interference with or impairment of the normal work of the station. Anyone mentioning such a conversation or concern by others. I know it's spying but your lot are the only ones I can be absolutely sure of – and it certainly is in all your interests."

"I'm quite sure all of us will be only too happy to help; after all we'd be protecting ourselves against Northern – but what are you planning to do to the person if we find them?"

"Just make sure that their information is discredited and that General Connors doesn't get hold of anything he can use. As to the individual's future I imagine they would leave the ISS and that Northern would find them something else to do. They wouldn't be pleased with their agent of course."

"That seems like natural justice. Apart from getting us thrown off the station, what other angle are Northern working on?"

"They're claiming that you have removed classified, patented defensive technology and illegally adapted it to your own use and disseminated it among increasing numbers of people without permission or acknowledgement. They're asking that you be placed in their custody until you have returned the technology."

"Do they say what we've used it for?"

"No, and that is a definite weakness in their position, as they don't want to admit to the technology having any connection with a damaged central nervous system - even to themselves I think."

"I'm sure that won't work legally - there is no Northern technology, hardware or software - and examination could prove that."

" Obviously you're none of you going to offer yourselves up for 'examination' but you're right - if you did, no there is no detectable technology to be found - at least that is true for all of you except Josh - examination would show something there but not Northern's I think. Anyway it's just a pretext - a cover story and a flimsy one at that. They just want to grab you and examine you all to help them understand their remote recruitment problem and of course there's also your evidence about your own work for them and the treatment of the officers you witnessed. "

"I'll pass the Northern agent problem on to the others discreetly. It may go against the grain but as I said I'm absolutely sure when they understand what the problem is they will agree. We are well integrated now so we should have a chance of learning something."

"Thanks. Obviously it must be discreet but one thing on our side is that Northern is in a hurry so whoever it is can't afford to go to ground and wait – he or she will be under pressure."

"I'll go and have a chat to whoever I can find."

Our paradoxical friend

Despite the protestations of mutual trust on all sides, the first manned visit to the object consisted of representatives of each ship and both the 'non-recruited', making the party rather larger than optimal. They had all agreed that it was important to have both the recruited and the unaffected in contact with the object so Caz, Bjorn, Nikola and Aleksi set out in the Resolution's slightly larger transfer module across the short expanse of void.

Under the module's lights, the altered area of the planetesimal looked a little like a rocky plain primitively surfaced with tar or possibly just melted and roughly flattened by a giant roller. It was hard to estimate size but it didn't appear to be more than tens of metres wide or long. It wasn't completely flat but it was more or less featureless, with none of the cracks and crags of the natural rock around it.

They divided into pairs of opposites. The first to visit were Nikola and Caz. They approached the surface very cautiously, tethered to the module. They had both been trained, Caz rather briefly, in manoeuvring by thruster packs in weightless conditions but Caz immediately found herself severely disoriented; there was glare from the surface reflecting the module lights, no sense of up or down or scale and blackness beyond the illuminated area. She hit the surface slightly hard with her knees and elbows but was surprised when the solid looking surface seemed to give

slightly, cushioning the impact and apparently lessening her bounce. A minimum thrust brought her slowly back and she managed to time her deceleration to keep herself in contact with the surface, still more or less on hands and knees. However when she tried to anchor herself by sinking a powered screw-headed piton into the surface, the substance gave slightly again and the piton flew off dangerously past her head.

"Jesus!" exclaimed a voice right in her ear and she recognised Bjorn's voice from the module.

"Who were you aiming at, Caz? If it was yourself you only just misseed." That was Aleksa.

"Surface didn't appreciate the piton's attempt to embed itself." said Caz

A movement over to her left turned out to be Nikola making a more graceful landing, feet first. The thick, boot-like feet of her suit seemed to penetrate a millimetre or two into the surface and stay there, as if in dust or mud. Caz looked down at her suited hands and knees and saw they also seemed to have penetrated a short way in. With elaborate caution she moved her left hand away from the stuff and then back down again. Through the suit visor the surface looked perfectly solid and it felt hard and resistant as her hand came down on the surface but, despite that, the black material seemed to cover the bottom edges of her glove to a depth of nearly a centimetre. Looking at her other hand and her feet, she thought there might have been an infinitesimal deepening of that penetration in comparison to the hand she had just replaced, but when she examined them more closely she couldn't be sure.

"A slightly paradoxical environment." Nikola's voice sounded too close, as if she was sharing the suit with her.

"Solid quicksand." said Caz oxymoronically. She looked at Nikola's feet; they definitely weren't as deep in the surface as her own hands but they did seem to have penetrated a little.

"As I've had more practice at this I'll move around and try to quarter the area, see if there's anything different about any of it. All looks the same from here."

Nikola carefully bent at the knees, leaned slowly forward, allowed her legs to come up gradually behind her until her top half was angled towards the surface, then started making ultra slow swimming motions with her hands to pull herself over the surface. Just as Nikola's feet parted company with the surface, which they did without any sign of difficulty, just before she started moving herself forward with her hands, Caz thought for a moment that, through her own hands and knees, she felt a faint, rapid, complex vibration, quickly fading to nothing, like something large and powerful shutting down.

"Did you feel something?" she asked.

"No, what?"

"Vibration?"

"Nothing, no."

"I thought I could, as you were repositioning, not sure now."

"Nothing over here, except there's no illusion of sinking in any more."

Caz looked at her points of contact with the surface; there was no longer any sign, real or illusory, of penetration or sinking in; muscles in her back were twitching, complaining about her staying frozen on hands and knees, but she really didn't want to move, not knowing where she would end up. She held her breath for a moment and very slowly manoeuvred herself into a more or less similar position to Nikola's – she could see her moving gradually along the far border of the area, as if swimming in slow motion just above the surface. Very carefully she started imitating her movements and managed to start a crawlingly slow float in the right direction. The difficulty was how easily she lost contact with the more or less smooth surface; one slightly uncontrolled muscle and she could find herself in some kind of a spin, drifting away; she then had to use the thrustpack to reorient herself and manoeuvre herself back, going through all the delicate deceleration and attitudinal corrections again. The grey-black tarlike substance she was traversing appeared featureless and inert apart from what appeared to be just random irregularities, slight ripples, little depressions and raised areas with perhaps a little extra reflectivity, a hint of shine. However she remembered the piton's behaviour and the anomalous impression of sinking. It wasn't the dull, inert substance it looked.

"Ship went into alert, just before Caz mentioned those vibrations." said Aleksi from the module.

"But cancelled it immediately as a false alarm. Must have been some unusual kind of radiation. "

"Nothing on our instruments in the module though." said Bjorn

"Does make you wonder just what the ships are designed to pick up."" said Aleksi. "We need more sensitivity on the surface."

"That's the next step," said Nikola. "You two can have the pleasure of setting up the instruments on this stuff while we lie back in the module."

"I suppose we can attach some of them to the rock just outside the area in the hope that that's accepting visitors." said Bjorn. "I have some ideas for our paradoxical friend though."

Counter-intelligence

It had taken time and patience, but gradually a pattern had emerged. The small band of refugees on the space station had all been working to make themselves both useful and accepted on the space station.; Beth was helping with a weather survey and Adrian just going where an extra pair of hands was needed whenever Amarjit Rai let them escape from her testing regime. Josh had become both her main subject and chief assistant.

Most of the scientists were well disposed towards them, if preoccupied. They were intrigued by

their story and even more by the science of their recovery and they chatted freely enough, when not too busy. Asking whether there was any resentment against them on the station was a reasonably natural if slightly embarrassing enquiry but they all found opportunities to ask the friendlier staff; one name cropped up several times as unhappy about their arrival, apparently complaining that they were compromising the political independence of the ISS and in the long term were putting the scientific work at risk. Her name was Andrea Stretzer, a young physicist carrying out a research programme into dark matter, in only her third week on the station.

Jim had been reporting to Angus Ward-Hennicke. Now the time had come to bring in Slater, who was after station security chief. If anyone had a right to resent their presence, it was Slater, since they had added considerable weight to what should have been the lightest of her responsibilities. She greeted the rather intimidating embassy of Angus Warde-Hennicke, Colonel Brandon and Jim Carey with unconcealed distaste.

"I don't suppose I need to tell you that the sight of the three of you together with something to tell me doesn't relax me. What, as they say, is up?"

"I'm afraid the ISS may have somebody aboard acting as a Northern agent." said Angus.

"Most establishments do. What would they be doing here, do you suppose?"

"Usually it wouldn't be a dedicated, trained agent, just somebody earning a bit of pocket money or paying off a debt, reporting anything of interest, like new tech. " said Brandon.

"But?"

"In this case they are trying to persuade the ISS staff that our four refugees are disrupting the ISS and transmitting reports of these problems directly Earthside," said Angus.

Slater gave an impressively chilly smile. "Well, that would be a disaster, wouldn't it? And you have an idea who it might be I suppose."

Angus nodded at Jim. "An idea," said Jim, "certainly not proof. In conversations with the research team one name keeps coming up as making various hostile comments: interference with research, political conspiracy, damage to the independent status of the station."

"Some truth in the last perhaps," said Slater. "That kind of stuff could be just a chip on the shoulder, general bitterness against the world."

"Doesn't seem to fit with the individual concerned: young, new up here, ambitious, should have promising future."

"Ah, I know who you have your sights on. Someone did mention her going on about our refugees and I wondered why she should be bothered or even interested. You may very well be right. Is it worth doing anything about?"

"Well, not much. We wouldn't want her sending any more damaging messages over ISS comms,

if that's how it was done. Or over her own equipment if she has any. That's about it, really." said Angus.

"It's probably best if I have a word. I'll search her quarters first in case there is anything there. I'll tell her that we suspect (or know, if we find a transmitter) that she is the source, to lay off badmouthing the refugees and trying to stir up trouble. I'll point out we can arrange to have her research project replaced by a higher profile one and that, however powerful Northern is, her scientific reputation will be damaged by the rumour that she was thrown off the station. And we'll watch her as best we can. Satisfied?" She looked at each in turn.

"I agree that's the best we can do, though how she reacts will depend on what kind of hold Northern has on her." said Brandon.

"I suppose, but it will be difficult for her to do much harm."

"Thank you. That's extremely helpful." said Angus "I wasn't sure how you would take a further complication."

"I do resent unnecessary complications and distractions, but Jim and his people are refugees and guests, helpful ones I understand, and you've done most of the work for me. I think stopping ambitious young Andrea fabricating nasty stories and phoning up Northern with them is a necessary part of my job."

Jim Carey smiled. "I think you are probably right about Andrea, most likely just ambition, some Northern promises about her future. If it is only ambition then it shouldn't be too difficult to reign her in. I hope you'll forgive us for moving in on your territory without consulting you."

"Whatever professional pride I may have isn't injured by you gathering information that makes my job easier and anyway security is just an add-on duty for me really. I'll let you know how it all goes."

Crossed wires

Back in the module Caz floated luxuriously above the acceleration couch, watching Bjorn and Alekski closing with the surface, which they were doing with proper caution. She felt there ought to be a magic word or code that would reveal the inner workings of the rock. As she watched, half dozing, one of the two suited bodies shot at right angles to their line of approach, crossing the tethers, slowing as it dragged the other after it.

"Thruster malfunction. The left translational is jammed on full power." It was Bjorn.

"Power down, Bjorn. You've crossed the tethers." said Nikola sharply.

Alekski was being pulled in a tumbling curve away from his intended landing spot over the

surface. "Do you have to zoom off at a tangent like that? You're taking me with you and I don't want to go that way." he protested.

"Sorry- not my decision. What do I do?" Bjorn shouted. "It won't power down."

"Can't you stabilise with the right?" said Ca

"Translational only works in one direction at a time, takes too much power." said Nikola.

"I've only got the fine directional control jets and they won't stop me. What should I do?"

"Change your orientation with the fine jets. Uncross the tethers."

Aleksi's movement across the surface was accelerating with the pull from the tangled tethers and he was still tumbling. He fired his thruster for a moment, slowing the lateral movement but not the spin. Bjorn was gradually altering his trajectory but the drag on the tether combined with the turn vector was beginning a wobble that was threatening to turn into a tumble, accelerated by the stuck thruster, so that he started to move in complex loops before he could get clear of Aleksi's tether. This made Aleksi's movement too unpredictable and complex for him to control; he flew, spinning and flailing, just above the surface and crashed with sickening momentum into a rocky outcrop at the edge. He bounced off the rocks, still spinning, shooting back across the little grey plane until he grazed the surface, where he instantly stopped, as if stuck to fly paper..

"What the fuck!" said someone. Aleksi had sunk right in. The surface material now appeared slightly translucent, as his outline could be made out as if through mist or cloudy liquid, though boundaries were unclear. There was the faintest diffuse glow in the misty material that surrounded him..

"Aleksi! Are you OK? Is your suit damaged?" shouted Nikola. Caz could hear nothing on his link; it didn't sound live. Out of the corner of her eye she was aware of Bjorn still swinging in widening loops, but managing to make overall progress in a direction that would eventually separate the tethers and keep him clear of the module and the rock.

Aleksi's shape didn't seem to be moving below or within the surface.

"We'll have to go and get him," said Caz. "He's not moving or responding."

"We need to make sure we don't get entangled in the tethers first." said Nikola. "Bjorn, if you can't stabilise you'll have to detach the whole unit from your suit so we can safely go and get him."

"I've nearly cleared Aleksi's tether." said Bjorn . "That should simplify my movement."

"We can't wait with Aleksi injured."

"I think you *are* clear, for now at least. You're still looping though." said Caz

"I'm aware. Trying to reduce any movement back towards the tether. I'm finding it hard to

maintain orientation – please advise."

Bjorn's tiny figure wasn't easy to see in the weak light of the module's beams as reflected from the dark surface of the rock and the tethers were completely invisible. Aleksi appeared to be absolutely still, which suggested there was a strong force acting on him against the drag from Bjorn's tether; this resistance had also accelerated Bjorn's looping flight. Caz mentally drew two straight lines between the module and the two men and saw they no longer intersected, but she wasn't sure whether Bjorn's wild looping trajectory would bring them back in contact.

"You're clear at the moment but you may loop back." she said.

"OK, trying to adjust. Please observe and advise."

"I think that's not enough clearance from us and the rock in the vertical plane," Nikola said quietly to Caz.

"I agree. I hope he still knows which way the module is." said Caz

"Bjorn, can you see the module?" asked Nikola

"Occasionally." said Bjorn tersely.

"We think you need more 'North' relative to the module."

"I'm more or less doing trial and error. How's this?"

Caz saw Bjorn's curving flight flattening out.

"That's looks OK. Now can you jettison the unit, before you reach the end of your tether?"

"No word play please. I am busy." said Bjorn. "I must stabilise more before I do that. How else will I stop the rotation?"

"Don't do anything to risk crossing the tethers again. One of us can come out to help you in – after we get Aleksi."

When Caz relocated Aleksi, he was no longer lying apparently submerged but seemed to be on top of the surface, motionless.

"Do you see that?" said Nikola. "He's out, in the clear."

" We couldn't bring him back with the tether? It would be quicker."

"Could be risky as we don't know what his condition is. We'd better go and get him." said Nikola.

"Bjorn?"

"I've reduced the lateral swing quite a bit, at least I think it's the lateral. I'm about to detach the unit.

"The power ought to cut out as soon as it loses contact with the suit," said Nikola.

"It ought to have cut out when I hit the fucking red button. Fucking Northern crap!" said Bjorn.

"I've unlocked it. Now I have to grab the frame and twist it away from me. How's Aleksi?"

"We don't know. He's not moving or responding but he seems to be out of the surface material, on top. We need to go and get him now. Can you wait until we're back?"

"There. The unit's off the suit and the power has cut out. It almost drifted away before I could catch it. I've got hours of oxygen and nothing much in the diary. Good luck!"

Reeling them in

As they approached Aleksi, who was face up on the surface, Caz could see there was something wrong with his faceplate; there was a darker area in the centre which looked chillingly like a large hole, except that it seemed to her almost unnaturally black. A few metres closer and she could make out that it wasn't a hole but a central, irregular area of grey-black, opaque material apparently fused to the glass. Its colour and texture looked the same as the surface he was floating over.

"I was sure his faceplate was broken and he was open to vacuum." said Nikola. "That stuff has formed a sort of seal."

The material covered over half of the plate, right across the centre. Aleksi was motionless but there was a hint of rise and fall in the chest area. Most exhalation gases were recycled in the suit and the small amount released wouldn't be visible but when she grasped his shoulders, she thought there was a slight increase in the frosting on the fingers of her suit. It was disturbing not to be able to see his face.

"He's alive I think! Maybe that stuff he was submerged in hasn't harmed him," she said.

"Who knows? Ready? You take that end. If we keep a minimal tension between us, that will prevent any rotation or body movement."

They detached his tether and shepherded him at low speed back to the module, Caz holding his shoulders and Nikola his feet, using the lowest setting on their translational jets. Getting his body in through the airlock without bending or twisting any part was awkward and time-consuming, but they managed it; they had to leave him floating in the air lock chamber on his own while Nikola waited outside and Caz operated the controls from inside. When Caz started to manoeuvre him out of the airlock she saw that the dark material looked less rigid and dense; in fact the seal was moving in and out – with his breathing, she realised. Even as she positioned him along the side of the cramped module she saw some of it float off in large flakes. Now she could see part of his face there seemed to be more of the stuff apparently melded to it in patches and strips.

Once Nikola was inside, they managed to remove the helmet and suit without much movement of his body; the seal material came away from the face plate when they touched it, revealing the

jagged edges of the shattered visor. There was more dark material stuck to areas of his neck and right shoulder as well as to his face and head. He was breathing normally and quietly but showed no sign of consciousness.

"It's hard to know under that stuff but I can't see any major surface injuries, perhaps lacerations on his face, but where did the fragments of the visor go?" asked Caz. "I don't see any inside the suit, or embedded in him and there weren't any on the surface, were there?"

"You'd expect some, perhaps most, to just fly off, given the velocity of the impact, but there certainly should be some inside the suit, or stuck in Aleksi." said Nikola. She flicked on the suits channel. "Bjorn? How's it going? I'll come and help you in."

"I am reeling myself in fairly slowly on the tether. My unwanted looping movement is reducing but I'll need something to slow it right down to avoid smashing into the module. How's Aleksi?"

"Alive but unconscious. Don't know any more. I'll have to extend a grapple for you to grab hold of while I am anchored outside. What kind of speed are you looping at?"

"It's hard to tell but I'll have a better idea when I'm closer to the module – no reference points close enough yet."

"Caz, you can help by monitoring his approach on the forward and starboard scanners to warn us if his trajectory looks too close at any point."

"Radar will give a proximity warning if I switch off the suit recognition – oh no, he'd probably be too close before that kicked in, but the plot should give me a better idea than visual."

In the end she monitored both visual and radar plot; he was moving in a flattening ellipse at about 9 metres a second, which was fast enough to cause injury, depending on the angle of impact. It was all a question of timing, since he could not stop his approach until he was at the point of ellipse closest to Nikola and the grapple. If he missed the grapple the first time there was a strong chance he would be too close on the next pass and would collide with the module. On visual, she saw a tiny Bjorn swing into view like an absurdly distant trapeze artist catching the spotlight before disappearing into the darkness beyond the module's light beam. As his traverses came closer, Caz was able to make out that he had re-attached the malfunctioning power unit. The diameter of his ellipse was shortening, but his speed was increasing slightly as he got closer.

"By my calculations you need to wind in 20 metres of tether half way through the next pass. That should swing you by the grapple." she said.

"Agreed, but I'll be facing 3/4 away from it."

"We'll count you down to it from 10 seconds and it should reach beyond your arc of approach, so you should be able to see it. It's got a light, which I will set to flash when you're within 50 metres or 5 seconds." said Nikola.

Caz watched as a suddenly much larger and closer suited figure swung into the light. Nikola started the countdown. Caz realised that he was closer than calculated and there was some danger he would collide with Nikola. The grapple's light started flashing. Caz held her breath. On the screen the two of them looked bound to end up in a disastrous tangle but Nikola altered the angle of the grapple closer to the module and Bjorn managed to grasp it, swinging past Nikola with a metre or two to spare. She allowed the grapple to move with him but he was forced to let go and drifted on along the sides of the module, but with greatly reduced momentum. He must have started to reel in the tether for he slowed again, grazed the module and began to edge back towards Nikola and the airlock, bumping gently against the comms and scanner housings on the hull.

He was safe, she realised.

Extraordinary Abilities

“At least it’s clear that he can’t exert direct influence at any great distance. The original missile was very close before it turned aside and he probably used the module’s very modest scanning facilities. The second missile, the radar echoes and interference with ground tracking obviously depended on commandeering the arrays here and they are close enough.”

Angus Ward-Hennicke was trying to reassure himself as much as Stuart Brandon, but he also knew that Brandon was enough of a military man to take direct, extreme action if he became too worried about Josh’s capabilities and he wanted to avoid that.

“What is definitely a relief is that he doesn’t seem to have any conscious control or awareness of these abilities at the moment. They seem to be automatic defence systems acting entirely independently of him,” said Brandon. “He can scarcely turn them against us or anyone else as things are but I’d bet he will eventually learn to use them.”

Investigation of the radar and other sensor records on the station had revealed a coordinated reorientation and activation of them and their pulse generators, both for the period of the loss of positional tracking on Earth and the deflection of Ward-Hennicke’s missile. Josh himself had remained as baffled as anyone about his super powers.

“How do you think that passive warning ability works?” asked Ward-Hennicke.

“It must be electro-magnetic signal based. What he and Jim told us of the warning of the attack on their shelter makes me think the attacking force were using ground-penetrating radar. That’s what his magically enhanced implants must have sensed.”

“I agree.” Ward-Hennicke sighed and stretched his back against the curved white wall behind him. They were perched side by side on a narrow bench or shelf along one side of the little comms station they had adopted as their own.

“The same applies to the two missiles but in their case it would presumably have been a target lock,” Brandon continued.

“And the severely debilitating physical symptoms he experienced with the redirection of both missiles must be associated with the change from passive detection to active transmission, from low power to high power.”

“Yes, OK, but what about the more prolonged interference with the radar reflection of the station? Surely that must have involved transmission yet he was apparently completely unaware of it.”

“Yes, worrying, disturbing even– but I suppose it wasn’t an immediate emergency, which suggests that there is a lower power mode with a much longer time frame.”

“Which would also make it much harder to detect. It horrifies me to think what mayhem such an ability could create.” Brandon, abandoning his usual brisk unemotional tone, was even managing to look rather horrified, eyes wide and frowning heavily.

“Come on, Stuart. He has shown no signs of being a threat to anyone. You know him well enough to realise that. Nobody could be more well-meaning really.”

“How do we know what’s going on inside him? We’ve just said that he has no control over it and we certainly don’t. What will happen if whatever is hidden inside him decides that the ISS is a threat – or we are? “

“So far its abilities seem to be limited to interference with electronics. That could be very disruptive for the ISS but it doesn’t pose much of a direct threat to humans.”

“What about implants? Do you have implants? I know I do. Do you want it in control of your implants, or mine? I hate being dependent on the good nature of what appears to be alien or at least unknown invasive technology, technology that might disable my implants, take control of them or worse still reprogram them permanently.”

“I know you feel paranoia is a virtue in your line but we have no evidence that any of that is even possible. At least we have made progress in finding a rational explanation for his abilities, ruled out an alien, invisible spaceship in orbit and other terrifyingly unlikely possibilities like untraceable very long distance remote manipulation of our electronics.”

Stuart Brandon snorted. “Very reassuring – except we have no idea how he acquired the extraordinary alterations to his implants and his nervous system nor how any of them recovered full health from the prion infection.”

“OK, yes, it’s very worrying. At least we should get early warning of any activity from the sensor Rai has put in. What can we do? Monitor and hope, agreed?”

“I suppose so – though I can’t help thinking exploratory surgery might tell us more.”

“Stuart, I know you. You’d never let that happen to him. And in any case we haven’t got the facilities here to do it properly – we’d need electron scanning and stuff.”

“Can we go and talk to Rai again? Maybe she can explain a bit more about the nature of the biological changes in him?”

“I don’t see why not – he may well be there too; she is fascinated by him and that must be hard to resist.”

Rapid Recovery

The crews had had to return to their own ships to reduce the drain on life support but were in radio conference as Aleksi was being debriefed about his accident. The two ships were in contact most of the time; the isolation, the hostile environment of space and most of all their outlaw status had created a powerful bond between them all and they had separated very reluctantly. From her seat by the comms screen Caz could just make out Resolution through the forward viewer, a tiny, slow-spinning catherine-wheel in the darkness, its internal lights giving the dimmest of flickers.

They had discovered little about the artefact and understood less; automatic checks on their suits after their return had revealed some alteration to the molecular structure at regularly spaced points on the legs where they had appeared to be submerged in the anomalous material. There were no traces of anything foreign or of changes of any kind in their own bodies. The ship's computer had recorded a momentary burst of articulate radiation but was unable, or forbidden, to provide any further information, responding with its standard "still under analysis; at least it hadn't declared a new emergency."

As for Aleksi, he appeared perfectly recovered, which wasn't really possible.

"Most likely compressed and/or broken neck vertebrae, possibly involving damage to the spinal cord, suspected fracture of the frontal bone, facial lacerations, exposure to vacuum, oxygen deprivation with possible brain damage - we can't be sure as the material on your face was impervious to everything; we couldn't remove it or scan beneath it – believe me, we tried! The ship auto-surgeon insisted there was no reason for it to intervene – no injury or threat to the patient; any way it's all healed very nicely. What do you remember?" asked Allans.

"Not much. I was trying to correct my spin and flight with the attitude controls but the drag from the tether screwed everything up, so I hit the rocks - with an almighty crack. I remember starting to hold my breath and screw my eyes shut before I hit, but nothing after that."

"You were unconscious for 48 hours. There wasn't anything we could have done about any of it really; we managed to get partial scans of your head and neck; we couldn't tell what was going on in your brain...."

"Nothing new there," Caz threw in.

"..but we could see damage to the vertebrae, which has now entirely disappeared," Allans continued. "There were signs of regrowth under the dark material, especially around your forehead; it looked for a while as if you were growing small antennae."

"Or horns," said Caz. Aleksi, doing his best to lounge elegantly against the mess table, scowled horribly at her.

"There was new skin where the material came off your head, face and neck. The material itself proved impossible to analyse. By the time we started on it it had basically disintegrated into its component elements and was just compressed silicone and carbon dust with minute traces of exotics, most of it floating about in our atmosphere. That's all we know, really," finished Allans.

"So whatever's hidden inside the planetesimal has repaired him, it's therapeutic - or at least that's the way it's acted here." said Nikola, from Intrepid.

"Yes, and we're totally outclassed here. Complete repair of such injuries in 48 hours is not even thinkable, far beyond our genetic engineering or tailored virus techniques!" Bjorn sounded reverential.

"If the signal from the rock was responsible for the change in us, for undoing our conditioning at least, could that mean that it diagnosed our deep conditioning as neural damage, which I suppose it was in a way, and tried to repair it." said Nikola.

"That would mean it made actual physical changes to us just with the remote signal. That can't be possible, can it? There would have to be physical contact!" said Aleksi.

"Yes, it may have been some kind of trigger but it couldn't have made the changes on its own. I still think something must have been built into your conditioning, a fail-safe or enemy sabotage or something – even that's unlikely enough.

"It still seems an attractive theory to me, therapeutic action, though," said Konrad, "if only because that's the way we actually feel, – healed, renewed. Well, we have plenty of time to think about it, though I'd prefer not to; it makes my head hurt."

"Whatever it is, we need to decide what to do next. There's a fair chance that Panasia or Oceanic has got intelligence of this location and will have a ship out here soon. We'd only get a few hours' warning from the scanners before its arrival!" said Allans.

"I think we must try again. The obvious next step is to try drilling at sites away from the anomalous surface, through ordinary rock and ice," said Konrad.

"At least that way we might get an idea of how much of the planetesimal is occupied by this thing," said Aleksi. "We must be able to learn that much about it."

"We should be able to manage that without going ex-v," said Mallinson, "if we programme the

drill and mobile sampler machines correctly."

"I think that would appeal to everyone, Aleksí particularly," said Allans. "Can we agree on that? Maybe a couple of sites equidistant from the anomalous site."

Tactical withdrawal

Allans was summing up their lack of progress. "I don't think we're going to get any further with our investigations into whatever is inside that lump of rock and ice. Whatever we have tried, our drilling at the various sites have all had the same result: nothing out of the ordinary down to the 50 metre depth and then the drilling machines report various failures and get no further. The sampling machines can't find anything to analyse except the rock and ice the drills have been through. When repeatedly refocused on what should be the surface below they behave as if the sample beam is encountering no material at all. As for the paradoxical surface the robots and instruments can't find it. Samples contained nothing but minute quantities of mineral dust. Scans were simply totally absorbed, which is extraordinary but uninformative. I don't see what else we can usefully do."

"Whatever is inside there took samples of *us*, didn't like what it found and turned itself off." said Aleksí.

"Well," said Nikola. "It turned itself on again to mend you and then powered down. You should feel honoured."

There was a pause.

"It seems feeble just leaving with so little learned, but I don't see what we can safely do. Who knows what effect trying to mine through the normal rock by more forceful methods such as demolition charges would have? We could end up breaking whatever's in there, though more probably, considering events, we would end up damaging our own equipment and possibly ourselves. I wouldn't want to exhaust that thing's patience."

"I agree. It doesn't want anything to do with us. Its power output and residual heat are barely detectable." said Bjorn. "At least we were able to load up on ice."

"Panasia and Oceanic are welcome to it as far as I'm concerned. Like Aleksí, I believe it'll behave the same way as with us: use that anomalous surface to analyse any visitors and then go inert – unless they have an accident like us of course. There's no sign of any usable technology for weapons or anything and there's nothing for them to seize. They can't legally claim the whole planetoid." said Nikola

"I agree. No point hanging around to get involved in a dispute. It's time to go home; we have limited survival time out here anyway."

"Back to the warm embrace of mummy Command?" asked Aleksi

"That's not even slightly funny," said Caz.

"Sorry! Too black for you?"

"What about our lost sister ship, Endeavour2?" asked Bjorn. "Shouldn't we at least make an effort to find her and her crew?"

"We have been broadcasting at regular intervals. We can't afford to go looking for them. Even if they're in roughly the same orbit it would take more or less for ever and we'd soon run out of resources, especially on Intrepid, food first of all but also breathable air; the CO2 component will go up and up." said Nikola

"I don't understand where she can be. If she rendezvoused with the object she should still be here." said Allans.

"Some automatic correction would be necessary to allow for the added momentum of waste disposal etc. – and the slightest touch of the attitude controls, if uncorrected, would take her away more or less for ever." said Mallinson.

"Our optimum course back will take us roughly back along our current orbit for a long way, at constant acceleration of course; we might overtake Endeavour if she has remained in or very near that orbit." said Aleksi. "The problem then would be matching velocity, deceleration. I doubt if we would have the time/resources. It would depend how far she's drifted - but it doesn't seem right to just cut and run."

"At the very least we can ask the computer to find a solution for a suitable search strategy, including deceleration along the way and the maximum relative velocity beyond which we would run out of resources if we slowed down to rendezvous with Endeavour." said Allans.

"Giving anyone a lift home though would really stretch us, even with just one extra passenger - not to mention the difficulties of our political situation." said Nikola.

"The initial aim would just be to check on their status. If there are survivors and the ship is intact, it might in theory be possible to help them return; one of us could even travel with them if there have been casualties." Allans didn't sound to Caz as if he had much faith in any of these scenarios.

"If there are survivors, we would have to be careful how we approached them - they might well treat us as hostiles," she pointed out.

"That's a pretty remote possibility I'm afraid. The radio silence and their disappearance make survivors very unlikely." said Aleksi.

"There might be material we could use," said Allans.

"Whether we find them or not, we have to go back very soon. How are we going to keep

ourselves out of Northern's 'Behavioural Research and Re-education programme?' asked Mallinson.

"Also out of a Court Martial," added Konrad.

"I think our only hope is to apply for political asylum, to get the UN to give us at least temporary refugee status." said Allans.

There was a silence.

"It did cross my mind but I know what Northern would do. They would start emergency proceedings claiming we were mutineers trying to desert, that we are desperate, deranged individuals, a danger to society in general, that we are infected with a deadly pathogen and that we have stolen vastly expensive hardware and technical knowledge from them." said Nikola.

"And the UN gets the majority of its funding from Northern. I can't see them risking that." said Mallinson.

"So we turn space pirates and go marauding around the galaxy? Our resources are a bit limited for that. If we don't go home soon, we will die out here. I can't see we will get help from anywhere else; no country will take on Northern just for us and anyway we'd never reach them – Northern would blow us out of the sky rather than let someone else get hold of us; we would be an unfortunate re-entry accident. Who else can we apply to but the UN?" Allans looked round the group.

"Northern will have us arrested wherever we land. They won't give us a chance to claim asylum." said Bjorn.

"I think Mark is suggesting we get asylum before we land," said Aleksi.

"That's right," said Allans. "We ask the I.S.S. for asylum; the UN are in sole control of the space station and its political independence is guaranteed by various treaties."

There was a pause while everyone took in this idea. Finally Nikola said, "That's a pretty outrageous suggestion but it might work. Would the ISS be able or willing to take us in?"

"I'm hoping the UN would find it too embarrassing to turn us down and might even enjoy discomfiting Northern," said Allans.

"The station is big these days. They could probably manage us for a while. I think it's worth trying," said Konrad.

"There is also the problem of how and when we can contact them or anyone." said Aleksi. "Our Comms are optimised for transmission over Command selected channels and their receivers will be listening out for any peep from us. The Moon arrays are bound to hear us, and track us, before anyone on Earth has a chance. Our messages will not only be overheard but will give away our position."

"We have two ships. Could we use that to create a little confusion?" Mallinson hesitated, then went on as if thinking aloud. "I mean – if we have enough fuel margin and control to manoeuvre, we could change our approach vectors quite drastically – operate one ship remotely, empty, on the expected trajectory while we wait somewhere out of direct line of sight in the other? "

"That actually might be possible, though tricky to manage. If we kept the ships very close together we would be very near Earth before they could resolve us as two separate vessels, even from the moon arrays." Konrad was clearly interested.

"So if we separated at the right moment, they might go on believing only one ship was coming in." said Bjorn.

"We'd need a distraction of some kind – or somewhere to hide; otherwise the presence of the second ship would become obvious as soon as it separated from the formation." said Mallinson.

"That means we would have to make sure our braking manoeuvres took us round the blind side of the moon so that the ships could separate with the moon masking us, but then what? They'd see us well before we entered earth orbit – and calculating two precisely related trans-orbital trajectories won't be easy." Nikola looked around as if hoping for objection.

"We could arrange a distraction: blow up the other ship or aim it at something valuable on the surface." said Aleksi.

"You really would make a space pirate. You revel in destruction." said Caz cheerfully.

Common cause/My enemy's enemy

"The UN will not make public accusations against a member without first exhausting more civilised approaches. However, as you are no doubt aware, it is difficult for us to exert much influence over Northern. As the richest world power with by far the largest armed forces and as the single largest contributor to our budget they tend to feel they are immune to world opinion and to interference from anyone, particularly us. Also they really do believe their space operations are being sabotaged or attacked; they suspect a rival power has new, indeed revolutionary, anti-personnel technology. There are things we know about the situation that makes this seem very unlikely and we need to persuade Northern to cooperate with us to find out what is actually going on."

Commissioner Leonhardt had invited the UN ambassadors of Northern's rivals, PanAsia and Oceanic to an unofficial and off-the-record meeting.

"Why shouldn't they cooperate? Surely it would be of great value to them to know the truth."

PanAsia's Dmitri sounded sceptical.

"You'd have thought so, but it would involve revealing their deep conditioning techniques and we strongly suspect they are illegal under international law. They are already very much on the defensive, not to say paranoid, owing to this apparent undermining of their command structure by mysterious means and by agencies unknown."

"So why are we here? This is between the UN and Northern." Dmitri looked across to his opposite number, Sol, for agreement. He nodded

"I don't think I have made the critical nature of this developing dispute quite clear. We believe that Northern is at the moment a serious danger to peace and stability, partly because it believes itself to be beyond our control but also because it is in a state of near panic about this new technology, which it is convinced is being used against it by one of you." The Commissioner made eye contact with each of them.

"I am not aware of any such new technology and I am sure we would not be irresponsibly risking open conflict with Northern. Our policy is peaceful coexistence as you well know," said Sol.

"I can echo that. We see Northern as business rivals. Our defence department is what its name implies. In any case what I have heard of the technology is scientifically impossible," said Dmitri.

"Believe me I am not suggesting that Northern are right in suspecting either of you, though I understand that you do at least have spacecraft on missions similar to Northern's, even possibly shadowing theirs, but that's not why I asked you here. The problem is money. We do have legal and public relations methods to pressure Northern, but I am afraid that they will simply use their financial clout to force us to back off. As you know we have a huge current account deficit and could scarcely operate for more than a few weeks without their contributions as things stand. I am asking the two of you to guarantee sufficient emergency funds for us to continue in the event that Northern withdraws its support."

"For how long?" asked Dmitri sharply.

"Until we can persuade Northern to restore its support. I believe it won't come to that; if I have formal guarantees from the two of you I am sure they will realise that their position has changed and it is in their interests to cooperate or at least to appear to do so. I am actually hoping that the joint research will relieve them of their suspicions of you, persuade them to review their conditioning techniques and even begin to rethink their overall strategy. Your help might one day bring about a more stable and cooperative world order, particularly with regard to space exploration and the technological arms race. I hope you can both see the advantages."

"You were ever the optimist, Commissioner – remarkable considering the nature of your experience. I will report back and ask for instructions. Urgently. They will want figures of course," said Sol.

"Our finances are publicly available, including the contributions made by members, but I will send to each of you estimates of the minimum required to keep us afloat without Northern's money."

Dmitri nodded. "I will also request instructions immediately. I must say that I welcome this opportunity for change."

"Good, but it isn't of course an opportunity to bring down Northern, just to level the playing field a bit and remove some dangerous tensions. I look forward to our meeting again in the next few days."

As they walked out of the Commissioner's office, Dmitri turned to his opposite number with a frown.

"Are we really to believe that the UN is going to divorce itself from Northern? Is it even able to? I think I am getting too old for sudden change."

"It sounds as if the UN is hoping to embarrass Northern into divorce. I doubt if that is going to work, given the balance of power in the relationship, but it may be worth a try. Let's see what our masters say." said the other.

"As always," said Dmitri. "It is a relief not having to make the decisions oneself."

Due Diligence

The computer, not surprisingly, came up with a range of options, depending mostly on the length of time they were willing to add to their journey and how close to their resource limits they were willing to go. This was made much more complicated by not knowing whether they would have to decelerate to rendezvous with Endeavour and then further still by their plan to transfer everyone to the Resolution before their final approach to Earth orbit. They chose a search solution close enough to the maximum; it would cost them at least an extra 9 days if they actually found the missing ship at the last possible position and would leave resources really stretched at the end of their journey, especially Intrepid's, but in the more likely event that they just had to give up and head for home, it would only be eight.

The very low apparent gravity of the reduced thrust and the tension of the search itself were affecting everyone's nerves. The two crews had divided the scanning between them, which allowed for greater resolution and range. Until they knew how close their resources would be run they were being very careful with everything, particularly food; they would have to transfer food and water from the Intrepid when they moved over but oxygen couldn't be removed in the same way. Only the small amounts unused in the suits were readily available; even the modules were not practical sources, using the same CO2 scrubbing technology as the ships and their reserves

were not held in convenient containers but were deeply embedded in their life support systems.

"I can't help hoping that we don't find them." said Nikola. " I'm not just afraid of what we may discover but of the kind of decisions we'll face. I know that sounds callous."

"We're searching, aren't we?" said Bjorn. "We don't have to feel guilty about feelings which we are successfully resisting."

"There's almost no chance of finding them anyway, even if they have stayed within the orbit." said Mallinson flatly.

They were into their third day of the search, travelling in tandem along the planetesimal's orbit at very low thrust, scanning a fairly narrow sweep at maximum range ahead to give the best chance of having the time and resources to decelerate to match orbits. So far nothing of any kind had come within range of the Intrepid's scanners, not a rock or a pebble or a breath of dust. Although the radar and lidar instruments would give an automated warning of any contact, the optical telescope on infrared setting was likely to be the most sensitive detector of a spaceship, but it had not been designed as a scanning device, so somebody in each ship was monitoring its read-out at all times. On the Resolution there had been an alert from lidar, but examination with the optical telescope had shown it to be a tiny, irregular body with reflective patches, presumably ice. They were keeping comms open.

It was Konrad who spotted her, the faintest recurring iridescence on the screen. This suggested a spinning, heat radiating body so, if it was the Endeavour, it was still rotating and presumably therefore not under thrust. She appeared to be moving more or less parallel to them, but computer analysis showed her to have deviated by the slightest of angles from their own orbit, luckily travelling at a not impossible relative velocity. This still presented a problem, as the change in direction would lengthen the journey and alter the equations, but they had wide margins still.

Changing their homeward course in pursuit of Endeavour felt deeply uncomfortable to Caz, an instinct she was sure the others shared. Both ships heading off course also seemed counter-intuitive and unnecessary but they had no choice; they had to stay together; matching velocities and position again after separating would mean an even more serious and also problematically unequal loss of resources.

Following the new solution the computer repeatedly altered reactor thrust while the rotation jets swung them round over 10 degrees, making Caz feel quite ill. Half an hour later Mallinson, using the Resolution's telescope in optical mode, announced that he could make out the ring shape of Endeavour. Their time of synchronisation with Endeavour was just under 3 hours. Both ships had someone examining the Endeavour with the optical telescope but it was Nikola who was the first to notice.

"Space within the torus looks a bit cluttered, " she said. "Can't make out what they are but it looks messy over there."

"Doesn't sound good." muttered Caz.

They took it in turns to look but it seemed nobody wanted to be the first to voice the growing certainty. Eventually Allans said. "I don't think there can be any doubt - there are three bodies, not wearing space suits as far as I can see. I don't understand how they can still be there. "

"Well, they would travel with the ship until it does a burn."

"Yes, but it must have done one to have moved away – and anyway the air escaping from the air lock would give them enough momentum to drift away."

"How many in the crew?" asked Bjorn. "Do we know for sure?"

"Four. Same as Resolution ," said Aleksi. "Three regular plus the LACC officer and the same gender balance, one female LACC officer."

"I knew there was some nightmare scenario building here," said Nikola. "Now we have to get some of us inside to face it, another dangerous jaunt through space, and for what?"

"Actually," said Mallinson, "I don't see why we couldn't dock."

"Which of us?"asked Bjorn.

"Doesn't matter. One of us can dock with Endeavour by the equipment port and then the other can dock us together normally – no extravehicular stuff and we can decide who goes in after getting together."

"I think that's a workable idea and might save time, too, even if the manoeuvring will be complex, considering the Endeavour's rotation; the changes in apparent gravity and orientation will be physically unpleasant but we're trained for that. We must all take the meds though." said Allans. " We'd have to suit up anyway as we don't know if there's life support there. Might be a more cautious way to approach as well."

There but for the grace of..

It was easier to have the smaller Intrepid as the 'bridge' between the other two ships but the docking with Endeavour had to be done manually as docking without a response from the host ship was beyond the computer's capabilities; docking with a rotating ring ship was tricky for any space vehicle but two ring ships it was highly complex. It also altered the normal human orientation of 'up' and 'down' in the two ships as the rotation would be a force towards the inner 'side' of the torus, so they had to reconfigure the layout and secure moveables beforehand.

Nikola handled the approach with great caution, her eyes never leaving the position and proximity readouts, but she still had to abandon the process twice, reversing thrust to move to a safe distance before trying again. This didn't help the physical well-being of the crew or the fuel

margins.

They had selected the Endeavour's maintenance port as it was larger and an easier target for a manual approach. It was on the opposite side of the torus from the crew airlock and of course on the outside, so the three bodies were nowhere near and mercifully out of sight. The one way 'dumb' docking meant that the mechanical clamps on the Endeavour's end of the bellows wouldn't work and they would have to rely on a magnetic seal. Since anyone going in would be wearing a suit it didn't matter much, though some atmosphere might be lost from Intrepid's airlock. By contrast Resolution's docking with Intrepid was slick and quick, the two computer systems being almost identical, though the effects on the crew were worse as it was the width of the Intrepid further from the centre of rotation and spinning that much faster.

They had decided that three of them should go in, keeping a cautious distance between them. Allans was an obvious choice because the ship was very similar to Resolution so he would be able to check the status of the systems overall. Konrad volunteered, which was sensible as he was probably the best with the computers. As they might need someone who knew the LACC protocols, Bjorn and Caz played guess which hand the anti-sickness tablet was in and Caz 'won'.

None of them spoke as they suited up. Nikola was on comms and tested their radios in turn. Allans led the way into the airlock and they sealed it behind them. As they turned to go in, Aleks gave them a thumbs up and a smile, rather nervously brief, Caz thought. When they started the manual procedure to open the Endeavour's equipment bay airlock, its control panel showed no more than the usual warnings about entering an area without life support. The airlock cycled correctly, minimising the loss of Intrepid's atmosphere to the unpressurised interior.

It was dark inside, which was not surprising as the area was normally unused by the crew. Allans was still leading and when he switched on his helmet light, Caz could not at first make sense of the coiled green shape harshly revealed beyond him. Then she recognised it as a pile of spare tethers for objects and crew on extra vehicular missions; they seemed tangled and disordered. Outside the beam of Allans' headlight she could make out the dim outlines of some other equipment. Switching on her own headlight she realised that most of the storage area was empty, the curved grey walls interrupted by only one or two piles of containers. They now had to make their way out of storage, through the drive maintenance area and around the long, narrow torus 'walkway' between it and the crew quarters. Behind her Konrad must have found the right switch as the shadows disappeared in a blaze of light. The radiation hazard sign and rad meter dials made the door to the drive chamber obvious; the dials showed no leakage and the door opened easily when Allans tried it, suggesting that the ship still had a fully functioning drive and power unit.

At this stage they took up their agreed formation: Allans leading through the door, Caz following on his signal when he had ventured some metres further and Konrad waiting for her signal before he came through. Once in the drive inspection and maintenance space they didn't bother to find

the switch but just used their suit lights to find their way to the exit door onto the walkway. Here small marker lights, embedded in the ribbon of plastic handrail that was extruded from the outer wall of the torus, came on automatically, another sign that ship systems were functioning. They had no choice but to move in single file; these sections of the ring ships were minimalist and primarily structural, built with just enough material to give the torus the strength to withstand the strains of rotation and acceleration.

They walked on in the same formation. Caz switched off her helmet lamp since it mainly illuminated the back of Allans' suit, causing disturbing fractured reflections. Allans stopped, held up a hand and then lifted something up in the other for them to see.

"Another tether," he said and went on.

They kept their positions behind him until he reached the airlock into the manned section where he signalled them to come forward and join him, as they planned to go through together. The airlock functioned normally and filled with apparently breathable air before displaying a ready signal for the inner door. Once they were through, their suits reported normal pressure and gas mix, but Allans warned again against removing their helmets in case of contamination. The ambient temperature was low, only a little above 0 degrees C, which was odd.

The main crew airlock was immediately to their right as they emerged. There was a fairly small space next to the two airlocks for crew to equip themselves for space walks. Four space suits were fastened by clamps on either side of the air lock. The inner door of the airlock was open, which should only be possible by a manual override if it was working properly.

They took up formation again, Konrad staying on the threshold of the airlock alcove, Caz going to the end of the tube/corridor leading into the crew quarters where she had line of site to Allans' signal from the first compartment. They had moved through two compartments like this when they heard Allans sigh.

"I'm afraid we have nothing to fear here," he said. "Come on ahead."

They found him looking down on the fourth crew member, a shrunken creature with very long grey hair, lying on a sleeping couch, fully clothed, mouth and eyes open, but very clearly dead. Next to the body was a small tube with the lid off.

"There's a body here, I'm afraid." said Allans for the benefit of Nikola listening in on the channel. "I think we'll find this was the LACC officer,"

"That's a hiber pill container, isn't it?" asked Caz, knowing it must be.

"I'm sure you're right," said Allans. "There's nothing we can do here. We had better check the main airlock and try to reach the bodies we saw outside. At least we can try to check their identities."

Konrad volunteered to go outside to bring in the bodies but when they cycled the airlock to open

the outer door for him, he discovered that there was a tether fastened to a handhold on the hull just outside; the bodies were attached to it in series. Caz and Allans joined Konrad in the airlock to bring them in gently on the tethers until they lay against the hull, the subjective floor, in a tangle of synthetic rope; they were wearing the light sportswear usual on board, making them appear cruelly exposed and unprotected. They were well preserved in the vacuum and showed no signs of trauma or suffering, their faces blank in death, despite the effects of decompression.

"Three more bodies, the rest of the crew." said Allans to Nikola.

"They are clearly all male, so your guess about the LACC officer must be right. One of them has a service tag." said Konrad eventually.

Allans examined the service tag. "Richard Ellerson," he said. "Not a name I know."

"They look as if they were unaware of what was happening to them, possibly unconscious." said Caz carefully. "Looks to me as if they may have been in the coma-like state triggered by the stand-down command."

"Does that really work?" asked Konrad.

Caz looked at Allans in some distress.

"I don't think there is any doubt about that." said Allans, not looking at anybody. "Any doubt at all." He gestured towards the body he had just examined. "I recognise him – Hemmings, I think, probably the senior officer. Finished training just before me. Seems things went the other way here."

Caz was sure Konrad took this comment in but he didn't ask any questions. They had never told the Intrepid crew how close they had come to this kind of nightmare.

The airlock chamber was small and Caz was feeling a growing need to get out and back to their own ship. They had to decide what to do, both about the bodies of their fellow astronauts and the drifting Intrepid itself. Caz didn't want to think about what had happened here, but she couldn't stop herself asking why the LACC officer had decided to eject them, tethered, from the main airlock when she could have just walked them into one of the airless sections of the ship, like the one they had come through, with much less bother. The coldness of this thought shocked her; what had the auto-suggestive techniques used in her training done to her? She looked at the three bodies and felt nothing but distaste, but then a sudden overwhelming sense of desolation.

"We need to make a decision about what to do next." said Konrad. "I suggest we move them into the nearest area without life support for now. We can't really leave them here."

"I agree – and the LACC officer," said Allans.

For obvious reasons, thought Caz.

Last rites

"There is no doubt the LACC officer took an overdose of the hiber sedative; the body was emaciated, starved, which is what you would expect from such a death." Allans was summing up as they all discussed what to do back in the Resolution. "It seems likely that, following orders from Command, she spaced the rest of the crew, believing they had been recruited by an enemy and then couldn't live with it..."

"It's the action we were trained for," said Bjorn.

"And which I very nearly carried out," said Caz, a little shakily. It was the first time she had said anything about events on the Resolution, about how difficult the decision had been – and none of the others had seemed to want to mention it either. All of the Intrepid crew must have realised that things had become pretty extreme on Resolution, especially after mysterious comments by Aleksi and herself, but they hadn't asked.

"I don't understand why she secured them to the hull of the ship," said Mallinson.

"There will be real difficulties about manning the Endeavour to get it back," said Nikola, ignoring him. "For a start there's ship's computer access. The emergency will have locked everyone but the LACCC officer out, so everything would have to be done manually, which means slowly and with constant checking of calculations, observations, systems etc. The two people on board would not be able to use the hiber facility and would find it difficult even to get enough normal sleep. This would use probably more resources than a full crew in proper hiber rotation and the oxygen situation might well become critical."

"I agree," said Aleksi, "and anyway I don't see much point in returning the ship to Northern, who are responsible for this appalling mess. If they want it back they can come and get it."

"I don't like just abandoning the crew out here. I know there's nothing we can do and it's irrational but it seems harsh to leave them drifting through this bleak nowhere forever, in the ship or outside in so-called space burial. Could we do the calculations to get the ship to take them back to their original station in the same orbit as our mysterious friend? At least there'd be some hope they might be found one day and questions asked about their death."

Caz felt the chances of that were vanishingly small but anything that might embarrass Northern was worth a try.

"I'm sure we could get one of our own ships' computers to work up a solution for that. Then one of us could programme it in by hand," said Allans. "Does that seem the best idea?"

Nobody spoke. Caz hated the thought of going back into Endeavour but she supposed Mallinson's solution was the most decent they could manage. Moving the bodies into the storage area on the other side of the crew quarters had been harrowing and exhausting and all for an end result that seemed to treat the bodies as little better than surplus equipment. She had never liked the idea of

space burial either, just shoving the dead off to be lost in the emptiness forever. Everything about Endeavour and the experiences of her crew made her cringe with horror and guilt – not too obviously she hoped, but she saw Aleksi give a quick glance in her direction.

"I'll start our computer off on it," said Aleksi. "And I'll go on board Endeavour to programme it in to the attitude and drive controls; it shouldn't take more than twenty minutes, less if I can feed the data in directly from my handheld."

"Well, any one of us who weren't in the first party should be in line to do that," said Nikola.

"More efficient if it's the person who has set up the parameters for our computer," replied Aleksi. "You could check what I'm doing though, Nikola."

An hour later they were undocking, having separated into their respective ships. Aleksi had had his way and instructed the Endeavour to return gently to its station by the planetesimal with enough delay built in to allow them to get clear first.

There was a subdued atmosphere as the Intrepid crew left Resolution. The journey itself and the uncertainty about their reception were weighing heavily enough on everyone, but Caz was sure it was more the thought of what the Endeavour was carrying in one of its storage compartments that was most in everyone's minds. They watched the Endeavour's drive engage for a second to start its relatively short journey back to the planetesimal before they matched the start-up of their own drives to bring them in convoy back to Earth.

Calculations for the return journey were complicated by their need to match acceleration very precisely so that they would remain close enough to make the eventual transfer of the crew; Resolution would be travelling a third below full thrust for that reason. The journey would last an extra four to five days as a result of the various manoeuvres required; they would have to reduce the thrust to avoid being spotted approaching Earth and it would be safer to cut the drives during the transfer. The hiber rota would end early but even so it would reduce the subjective experience of the 145 days to about 50 on Resolution and about 65 on Intrepid. The rota was drawn up by the dedicated computer which continuously monitored the pods so that everyone got the same down and up time.

The computer listed Caz as the first to go into hiber, which was welcome news to her; she would be under for 300 hours, be woken to relieve Allans and then 100 hours of dutiful boredom later be relieved by Mallinson and he in turn by Aleksi. They were having a meal together before the rota started, a routine of general orders which they had no wish to change, though Caz did reflect that it was a bit unnecessary in her case as she would very soon be getting her food and drink intravenously. She more than half expected Aleksi to make some crack about her eating habits along those lines but he scarcely spoke during the meal. It was Allans who eventually said as they finished, "I don't suppose you're too unhappy about starting off the rota, Caz. If you're ready I'll assist."

Caz didn't think she really needed help getting into the pod but again it was standard procedure to have someone check that all the monitor lights were green. As she was settling herself into position, Allans touched her lightly on the shoulder. "We all realise that the situation on the Endeavour must have been particularly disturbing for you, a recurring nightmare you found yourself awake in, but your decision, which saved our lives, was always part of you. We know that's who you are."

Caz felt the needle sliding into her right arm and struggled to stay awake. "I hope you're right, Mark. I am afraid of what I may be capable of – but thank you." As she sank into unconsciousness she was thinking how precisely tailored to her needs Allans' reassurance was, how aware of her. Was he really representing the others, Aleksii too?

Close contact

The next thing she saw was Allans looking down on her. "Pods are nominal, " he said, "so are navigation and systems. Tell me your name and then your position in the rota."

She took a deep breath, brushed away some mental cobwebs. "Cassandra Henderson. First changeover, relieving Allans, to be relieved by Mallinson. I'm fine."

"Good. Take your time. Freshen up, eat, drink. I'll be in the navigation control area." He turned away and left her to it.

Caz removed herself gingerly from the pod; she had pulled herself up too vigorously early in the rota on the way out and had been rewarded with a frightening head spin and collapse backwards. After a rub down with the damp paper towels, water and a concentrated chew bar, she felt normal enough for a recovery period.

When she joined him, he was speaking to Nikola who was on screen from Intrepid. This was an advantage of travelling in tandem that she had scarcely considered. Allans was just saying "... must be some internal resistance to our influence. It's a sorry state of affairs when the nearest we have to a world government is in hock to the powers it's supposed to be controlling. Anyway Caz is here to relieve me. You can talk to her about it later. I'll sign off for now."

He waved at Nikola and closed the channel. "They're on a slightly longer hiber period; Nikola's got another 10 hours before her relief wakes."

"Who is it?"

"Bjorn – he was first down over there."

"Shall we do the usual checks?"

"If you're ready. We can leave the personnel stuff, not relevant any more, just a verbal agreement on the systems will do, don't you think?"

"Sounds fine, just to make sure we're seeing the same things and not missing anything."

It didn't take long to check the systems logs and current readouts. There was a constant proximity alert for the Intrepid but since it wasn't moving closer it stayed just a low level warning; everything else was nominal.

Caz and Allans had a meal together, Caz's second in a short time since she had woken up, but her body needed solid food. As they were eating some of the more appetising reconstituted food, Allans explained that everyone had agreed to make contact at each changeover, partly as a check that everything was OK but mostly just to keep each other company; he hoped she didn't mind not being a part of the decision but they hadn't thought of it in time before she and Bjorn went into hiber.

"I would have been extremely angry if you had decided, in my absence, that we couldn't contact each other," said Caz severely, an effect slightly spoiled by a mouthful of 'chicken'. "I know what boredom and space fever combined can do to a girl."

Allans smiled. "I'm not sure how I would have stood up to a hundred hours alone without the contact with Intrepid; it must be one of the effects of losing the conditioning, low tolerance of boredom and isolation."

Caz wasn't sure how serious he was but she was a little startled; Allans had never shown any signs of that kind of vulnerability.

Before Allans went into hiber, they contacted Nikola on Intrepid again.

"Bjorn will be waking in four hours and I'm only around for the next ten at most, so you'd better make the most of sisterly chatter before you're stuck with the unreconstructed Swedish male for a hundred hours," she told Caz.

"Well, at least Bjorn hasn't been taken over by aliens," said Caz. "Though, come to think of it, that doesn't necessarily make his conversation any better than yours."

"I was sure you'd see the attractions of a sisterly voice, even an alien one," said Nikola cheerfully. "Have a good rest, Allans. Speak in a hundred."

Caz returned the favour of settling Allans into the pod, checking all the indicators and making sure he was comfortable. She always felt embarrassingly like a mother tucking in a child doing this, though the bearded Allans in no way resembled one.

"Caz, thanks.. er... Nikola and I have been talking about our.. strategy with the ISS, the UN... and.. Northern," he said as he began to slip into the hiber state. "Not much.. progress..some thoughts.. you and Bjorn.." He trailed off.

Caz wasn't sure that any of them could come up with anything useful out here, out of contact with Earth and therefore unaware of political events, but she supposed it would help to pass the

time. She spoke to Nikola, who agreed that it was difficult to know what could possibly work out here in their present isolation. The only thing they were more or less certain about was that somehow they had to keep Northern in the dark about which crew were applying for asylum for as long as possible, even confused about which ship if possible. When Bjorn came out of hiber and had recovered enough to take part, he agreed.

"Northern will be desperate to get hold of us but even more desperate to make sure the full story of the Endeavour is not made public. They would rather destroy us, just blast us out of the sky, than let that loose on the world."

"Any suggestions?"asked Nikola.

"Yes," said Bjorn." I think we need to make our return as public as possible; we need to get talked about – that might put a brake on Northern. Don't know how we do that though. We'd need help."

"Maybe the UN space agency could help, if we could reach them in time," said Nikola. "Anyway it's time I went into hiber, so we'll sign off for now. Caz, you'll be back in hiber when I reappear, so I hope Bjorn keeps you entertained over the next hundred hours."

"Thanks for the sisterly concern." said Caz. "Talk at turnaround at least. Sleep well."

Caz got on well with Bjorn; their common situation of being the two unaffected crew members provided a kind of bond; they shared an amused exasperation with the puppyish idealism of the others. Early on in their shift their conversations tended to worry away at their personal mystery: what made them exempt or resistant to 'remote recruitment', different from the others.

"It must be something to do with the conditioning and training we didn't have,"said Bjorn, "but I don't understand why it occurred in deep space months after the conditioning programme."

"Both ship computers reported some kind of unrecognised signal – presumably a trigger, post-hypnotic maybe?" Caz suggested

"Yes, I know the theory, but how could a presumably electromagnetic signal act as a post-hypnotic trigger and who was sending it and where from? If the deep conditioning was compromised, say by an agent of a rival of Northern, where did that outfit get the tech to deliver a trigger at that distance?"

"Well, "said Caz, "I agree it sucks as an explanation but the deep conditioning does involve neural connections to various electronic implants, so wireless signals might work that way."

"Possibly, but we're still left with the problem of where from and why so far out – and the fact that the signals seemed to cause all the ships' computers to get stuck in a loop trying to analyse them."

They gnawed away at this and the other extraordinary mysteries. They arranged a regular

timetable for calls and played chess. They coordinated the one short sleep period they were allowed. Towards the end of the period, after the equivalent of three days, tired of discussing the insoluble, they started to talk about the state of things back on Earth, which led on naturally enough to how they had each ended up on the mission.

"Actually, I had wanted to go into artificial intelligence research after my physics major but Northern offered me an MSC astronautics place with full funding and they were doing startling things in space. In a way I suppose the increasing mess in the world was another motive for joining Northern's space corps, just getting off the dying rock – but I'd had the usual dreams about exploring new worlds from my early years. " said Caz.

"They got to me a bit earlier, " said Bjorn. " I was just about to leave school when Northern began building its moon base. I was frustrated by the lack of progress in space before that. The steady expansion of the ISS didn't excite me much, probably just not a big enough adventure for me at that crazy age. Northern were offering sponsored degrees with the lure of possible astronaut training for the lucky ones. I had no difficulty making up my mind to apply. I didn't think about the politics. I didn't care about Northern's use of its leverage with the UN to make the moon an exclusively Northern military base. I just wanted a chance to get up there, though I never had much hope that I'd make it into space, let alone travel to the Oort cloud, an almost interstellar journey - and I wouldn't have been selected, I think, if it hadn't been for the panic that led to the addition of LACC officers to every mission."

"Yes, I couldn't believe my luck at all that commotion. I wasn't even assigned to a training crew at the time. I thought at best I'd be waiting years. That was some high end staff panic; they had to expand and redesign the life support areas of the three ring ships they had left to accommodate the extra crew member."

"And recalculate all the material and deltaV equations, increase the thrust from the reactor drives and the efficiency of the CO2 scrubbers. It was an amazing accomplishment. I was ridiculously excited by it all, but then the weirdness of the training and of our role did cast a shadow over that thrilling future, even for me," Bjorn shrugged. "I was a bit older by then."

"Yes, it should have been deeply worrying, but I did a good job not thinking about it and I assume there was some hypnosis helping with that. I was still focusing on the unbelievable idea that I was not only going into space but on a pioneering mission which only a handful had attempted before me."

The time didn't drag nearly as badly as Caz had feared and she found herself monitoring Mallinson's waking almost before she was ready for it. Bjorn was still a few hours away from waking Konrad.

Once Mallinson was properly awake after his first snack, he seemed in a good mood. He smiled, chatted and helped her prepare the traditional shared meal, even insisting on serving her when

they were seated. If there had been movable chairs she suspected he would have been pulling hers back. Caz was amused; the introverted Mallinson was actually flirting with her - in an old-fashioned and clumsy manner. The idea of having to cope with such a situation over a meal of reconstituted protein, as they hurtled through remote space towards an unknown and dangerous reception on Earth, might have made her burst out laughing if she had not been face to face with the cause of it. Favouring her with a tender smile, he suddenly said, with great intensity. "Caz, I know you were suffering more than any of us on Endeavour because of what you did to us, to me. Please don't feel guilty about that. I know the others are grateful and I personally feel you are the true heroine; you saved us all, fighting against your training and risking your life for us."

Caz was alarmed.

"Thank you, Mallinson," she said, "but what we found on Endeavour was horrible for everyone. I have already told Allans that I have had to come to terms with it. As for events here on Resolution we all did what we did in impossible circumstances. Time to move on."

She hoped the mention of Allans would keep him in check and in fact he did confine himself to less personal topics for the rest of the meal.

After the meal they performed the systems and navigation checks together. Caz couldn't help noticing that Mallinson was taking every opportunity to be close to her and even managed to make physical contact as they moved from screen to screen.

'Only an hour or so before I go into hiber,' she told herself. 'Keep your temper - just avoid him.'

However this suddenly became impossible. Presumably misinterpreting her passive avoidance, Mallinson took the opportunity while they were side by side ticking off the radiation readings from the reactor to clasp her firmly round the waist, turning towards her as he did so.

Caz hastily disengaged herself, taking two quick steps away.

"Mallinson, I know we are no longer under Northern general orders, but as a crew we can't afford that kind of relationship and I am certainly not prepared to even contemplate it - with any crew member." She thought she had kept the anger out of her voice but for the sake of future relations she added, "I am sure you realise that yourself. We are all suffering from the effects of traumatic events and our dangerous situation. I'll put it down to that."

Mallinson's face was reddening and he seemed totally at a loss as to how to proceed, frozen on the spot.

"I'm sorry," he said, "Something just came over me, a sudden surge of emotion. Sorry!"

The thought of the remote and inhibited Mallinson now subject to uncontrollable bursts of passion was both bizarre and frightening.

"Let's just get on." she said. "None of us are the way we used to be."

They got through the rest of the checks sensibly enough and then raised Bjorn on Intrepid. She signed off with Bjorn with some regret; she had found him a comfortable companion. Bjorn told Mallinson that he would be relieved by Konrad in a few hours so 'you will only have to put up with my primitive nordic attitudes once or twice'.

It was then time for her to go into hiber, a great relief until, with that sudden sinking feeling, she remembered that the rota would bring them together for a few hours three more times before turnaround. Sill, she comforted herself, it will only be a few hours and she got herself into the pod without assistance while Mallinson checked the pod status. Having assured her that everything was green he looked at her as if he wanted to say something more, but then turned away to leave.

"Mallinson," she said, "Let's just forget what happened back there. We have enough problems to face together. OK?"

He raised a rather weary hand without looking back. As she drifted off she thought she saw him leaving the pod chamber.

Caz was happy to get to turnaround. Her two further brief sessions awake with Mallinson had been strained but he had kept well clear of her physically and had been friendly in a rather frightened way. They had been poor and awkward company for each other, though, and the link to Intrepid had been a godsend.

They had strapped in for the spin up to slow rotation and down again to no angular momentum because it did weird things to their apparent weight and orientation, but once the ships were turned around, the drive started up and deceleration was providing the apparent gravity they were used to, the crews in each ship gathered for a meal and a conference, with a video link between them. The manoeuvres had been successfully matched so the two ships were decelerating in tandem; continual small corrections in thrust to offset random variations in the drives would be necessary to maintain an exact matching of delta V but this had all worked well on the acceleration phase so they were foreseeing no problems.

Lines of approach

The two ships were decelerating at half thrust, in close tandem, to give a radiation signature as much like one ship at maximum thrust as possible. They were approaching the Moon; they didn't believe any of the instruments in orbit or on the surface could yet resolve them into two distinct ships at this distance but they were playing safe. The manoeuvre had lengthened their journey by about 15% and the ships' computers had needed some persuading to perform a series of unscheduled and complex calculations before they were all satisfied they had hit on the right balance between cautious disguise, fuel/oxygen consumption and an acceptable time scheme.

They were now all in the Resolution, having managed the transfer between the orbits of Mars and Earth. The smaller Intrepid might have been easier to hide and finesse past Command but

the Resolution and its crew were the more obviously compromised from Command's point of view and they might easily decide to take it out as soon as it was in range so the Intrepid was the decoy, apparently returning with its unaffected crew, only suspect through its long silence. Its resources would have been too limited for all seven of them anyway; as it was they were having to conserve oxygen and water.

They had set up a permanent connection between the two comms systems so that signals could be routed through the Intrepid's transmitter. Command had been calling at regular intervals, presumably on an automated relay but they were pretending to be unable to receive long distance signals. The time was approaching when they would have to answer and make their pitch about their status as Intrepid crew. As for Resolution they would claim to have had no contact of any kind with the ship or its crew.

"It doesn't really matter if they believe us," said Bjorn, "as long as they don't feel inclined to blow us to bits and as long as Resolution is undetected."

"Our story of micro meteor damage to the antenna array is suspect; it wouldn't take us this long to replace or repair it. The silence is too long." said Mallinson gloomily.

"We could try claiming interference from the object; they know it's a source of radiation and they probably haven't had signals from any ship near it, but again we only need to keep them interested in debriefing us, not believing every word of our story." said Caz.

"Couldn't we claim an emergency and tell the truth about where we are? That we have had to abandon Intrepid and that Resolution can't support us all for long enough for normal reentry? Then claim asylum after we dock with ISS." said Allans reasonably.

"That sounds rational but we're not in rational times. I don't like to think what Command might do if they realised that the recruited and therefore hostile crew of the Resolution and the rest of us were all in one ship heading for the ISS but I'm sure it wouldn't be just a reprimand." said Bjorn.

"I agree. It's too big a risk. There are arrays of missiles both on Northern's moon base and in earth orbit. We need to remain unobserved for as long as possible and hope they don't have time to take the decision to take us out. We can't cut thrust and comms to avoid detection as we have to decelerate and we have to communicate with the ISS. Northern will find us pretty fast." said Nikola.

"The best we can do is present them with a simulated single image for as long as possible. We need to leave deviation until the last minute, even if it means taking risks with our trajectory and even more with Intrepid's." said Allans.

"But still make Intrepid's trajectory believable, if dicy." said Bjorn, "A delicate balancing act."

"We'd better make contact now, before they find us." said Konrad. "Less suspicious."

"OK," said Nikola. "Here goes!" and she thumbed open the channel link to the Intrepid. "This is Intrepid calling Command. Can you hear us? Please respond!"

Asylum

Administrator Cummins had asked to see Jim Carey urgently and Jim had collected Josh from Amarjit Rai on the way. When he arrived in the Administrator's quarters, Josh saw that Brandon, Ward-Hennicke and Slater were also present. Like all the living spaces on the outer wheel the walls had an obvious curve. They were sitting at the elongated platform that served as a work-desk and conference table.

"We've received a message which purports to be from the Intrepid, a Northern space vessel returning from the Oort Cloud. It's electronic id appears to confirm it." said Cummins.

"Where are they?" asked Ward-Hennicke sharply.

"Well, if they are where they say they are they are transiting the far side of the moon."

"Why are they contacting us?" said Brandon.

"They are asking for political asylum." said Slater drily.

There was silence for several seconds.

"Here? Why?" asked Jim faintly.

Cummins folded his hands into a steeple and peered at Jim over them. "They say Northern believes they have been affected by the recruitment process and they fear for their safety if Northern gets hold of them."

"How many?"

"They didn't say but the crew of Intrepid can't be more than four."

"Why have you asked all of us here? Isn't this your decision?" asked Jim. "I am flattered to be asked and fascinated, but we are just guests, uninvited ones at that."

"You're here because I asked Director Harding for advice. He suggested there might be both political and scientific reasons for considering their request and that the three of you should be consulted – but he left the final decision up to me – and you are also refugees from Northern and know a fair amount about them. "

Angus Ward-Hennicke frowned. "I think I can guess what's in Harding's mind but it would be good to know more about what's happened to them before we get involved. Northern presumably believe they are compromised, under enemy control or at least no longer independent agents, if they ever were."

"Let's not make too many assumptions about Northern's training methods," said Brandon.

"Whatever we suspect."

"Could the station support them?" asked Slater.

"Just about, by postponing replacements for those going back." said Cummins. "But this is absurd. Two groups of refugees on a scientific research and observation station – four more supernumeraries! It's crazy!"

"Can we contact them now?" asked Ward-Hennicke. "Can they route comms through any of the moon arrays?"

"The fact they are hiding behind the moon makes me assume they are reluctant to give their presence away to anyone else. Their contact was short and tight-beam on the standard inter-orbital frequency, just before they disappeared." said Cummins. "We'll have to wait until they emerge I'm afraid."

"What did they say about the recruitment process?"

"They just said Northern probably believes they were affected. They added that they no longer consider themselves under Northern or any military command but are not under any other form of control or compulsion."

"That doesn't sound like conditioned Northern officers. It would be most interesting to find out more about what has happened to them." said Jim. "I for one would like to talk to them."

Brandon breathed out heavily. "Can we really refuse? What would happen to them?"

"I suggest we treat this as a space rescue mission." said Ward-Hennicke. "Life-support malfunctions or something, emergency docking. We should be able to persuade them to cooperate in that."

"So you seem to be agreed," said Cummins. "You want to accept them. But won't going public with it as a rescue operation make it more difficult for them to claim refugee status later?"

"That request is going to infuriate Northern whatever happens; at least this should buy some time." said Ward-Hennicke. "As soon as they are in contact we should inform them they are being rescued. They might be able to help make the nature of their emergency convincing."

"Well they should have line of sight communication in a few minutes, well before we are round the other side." said Cummins. "It will come through here. We can only wait."

Track and trace

Northern's grandly named Deep Space Defence and Monitoring System was mainly concerned with keeping the swarm of objects in earth orbit under close enough scrutiny to pick up possible threats to their own territories and facilities. In this it was assisted by a feed of information from the UN orbital collision avoidance monitoring agency. Northern did have longer range scanners, including some based on the moon, partly to help track their own spacecraft and partly to keep tabs on those of rival powers.

One of the remote moon scanners picked up an unexpected blip approaching the moon and closer examination revealed a heat signature. This information was displayed a few minutes later on the screens in Northern's hardened underground control centre in the arctic, where a small band of operatives worked in the technological twilight of a monitoring station. The blip was routinely targeted by two missiles shortly before it received a reply to its automated signals from one of the lost ships. At this stage the missiles were stood down, as the identity was now known and telemetry showed it would avoid both moon and earth on its present heading. The ship's position, course and a recording of its message was transmitted to Command headquarters as soon as it was received. Colonel Harkness was immediately summoned to General Connors' ready room.

"I have a relay open to the monitoring station in case we need further details. We can get live imaging of their present course," reported Harkness.

"As I understand it, they are on one of their pre-programmed earth approach vectors. Is that right?" asked the General.

"Yes, that's certain. Those approaches are clearly shown on the larger plot and they're quite close to number four, designed to take them into one of the lower orbits."

"What do you make of their explanation for their long silence?"

"I would say it sucks big time if it weren't for the fact that we don't know what effect the object may have. We do strongly suspect it is a source of radiation after all. Repairing or replacing the antenna array is usually straightforward and shouldn't take more than half a day at most."

"That's what I thought. So their position means they are in a slingshot manoeuvre around the moon, against its orbital momentum?"

"Yes, they are using it to lose momentum. They disappeared from direct line of sight communication behind the moon about two minutes ago; our satellite is on the other side at the moment. On their present trajectory they are likely to reappear in about forty minutes."

"I don't like this at all. Before we lost contact with them out there in the Oort the ship sent an automatic notification of a suspect incursive signal alert. The timing of the comms loss is not reassuring and now they have timed their approach so as to disappear behind the moon. Surely we can track them?"

"Their course will take them quickly beyond the curvature, very close to the surface. We don't have anything able to scan that close to the surface of the far side. Our moon orbital station is designed primarily for earth observation, not for spacecraft approaching from outside the system. We will lose tracking pretty quickly."

"Have we worked out a re-entry solution that will bring them home, where we can intercept them with minimum fuss?"

"We are sending the solution repeatedly. They should have plenty of fuel and their velocity will be well within deceleration limits by the time they have exited the moon's gravitational well."

"General!" A voice emerged from the screen displaying the live image relay.

General Connors switched on two way comms. "Yes?"

"Phillips here. Details of the heat source we monitored appear to show an irregular contour, with a central dropout area."

"What does that mean? Could it be a malfunction?"

"We don't know here, sir. It's odd. We have never seen a signature like it. I don't see how you can have a plasma exhaust with a gap in the middle."

"And they reported no contact with the Resolution. What has happened to that ship? I want them targeted as soon as they emerge. If they behave erratically I want them to know the risks they run. I don't want them thinking we need them more than they need us. I'll keep an eye on this tracking image while we wait for them to emerge. I want them targeted the moment they do."

Restraining influence

Commissioner Leonhardt was texting. Time was too short to set up secure conferencing and anyway there wasn't room for discussion.

A situation such as discussed has arisen. In a matter of minutes rescue operations of a Northern space ship crew will be started by the ISS. The crew will subsequently be granted asylum, in the first instance on the ISS itself. The ship will be approaching the ISS orbit from behind the moon. Will update on more precise position and course as soon as available. Please monitor for interception or other countermeasures and keep verifiable records of all events. Many thanks for your help in this matter. A more formal request and acknowledgement of obligation will follow.

LEONHARDT

His next call was one he was going to enjoy and he wasn't worried about its security. He selected the number of Northern's UN ambassador, Salmana Mansoor.

"Commissioner, what's on your mind?" She sounded her usual brisk self, he thought.

"Ambassador we have a rather delicate situation developing."

"How does this involve Northern? Do you need our help?"

"Not exactly. One of your space vessels is apparently in difficulties approaching earth orbit."

"First I've heard of it. I'm sure our space command can cope, though I appreciate your concern."

"The ISS has undertaken to give them assistance and to host them for as long as is required. I have already OK'd that."

"Northern may well view that as interference in their own affairs. I hope you realise that. What is the name of the vessel?"

"The Intrepid, I believe."

"I will check with my superiors but I am sure they will say that it is essential that the crew and ship return to our care and control."

"We can scarcely turn down a request for assistance in space, ambassador. What happens after that will depend on circumstances which nobody can now predict. The first priority must be the safety of crew and ship."

"I am aware of international law and the priorities of humanitarian assistance, thank you Commissioner."

"I have no doubt you are. In any case, the situation is being widely monitored, very widely monitored, so our actions and indeed the actions of all those involved will be a matter of public record."

"I see. You will be hearing from me very shortly, commissioner."

Leonhardt permitted himself a grim smile.

Positional play

"We will be picked up by Northern moon arrays in a minute or two. We are separating from the Intrepid's course now and its trajectory will take it into high earth orbit in about 5 hours, other things like missiles being equal." said Aleksi.

"So fingers and legs crossed. There's not much point relaying transmissions through the Intrepid for much longer as they will see there are actually two ships any minute now and anyway we need to talk to the ISS. We'll just leave it automatically relaying its position and intended entry point." said Nikola

"When are we going to tell the ISS which ship we actually are? If we leave it too long we may do too much damage to our credibility, which is going to not going to be improved in any case when we admit to our little deception." asked Bjorn

"Well, now I think. Command will be putting one and one together and making an unexpected and disturbing number. Agreed?" said Nikola.

Noone said anything and she started sending the automatic call sign to the ISS on the tight beam.

.....

The speaker came alive and Cummins raised his hand, ready to enable two way comms.

"Hello ISS. This is the crew of Intrepid and Resolution calling from Resolution. Resolution calling ISS. I'm afraid we owe you an explanation."

Cummins' hand remained poised above the button. He turned to the others, looking lost.

"How many ships are out there running away from Northern?" said Ward-Hennicke.

"Hello ISS. Can you hear us? We urgently need your OK to dock with you."

"Doesn't really make a crucial difference, I think." said Colonel Brandon. "Let's try the rescue idea."

Cummins activated the outgoing channel. "Hello Resolution. Please give the nature of the emergency making rescue docking here necessary. Explanations later."

There was a pause. They waited.

"We have failing life support, largely due to overmanning. We need the nearest source of oxygen."

"Very well, Resolution. Please signal Northern Command of your status and intentions immediately."

"I'm afraid we can't do that just now, ISS. We need to keep knowledge of Resolution's return hidden from Northern for as long as possible."

"Ask them where the other ship is now," suggested Brandon. " er – what was it – Intrepid."

"Resolution, perhaps you could explain what's going on. If you are Resolution, where is Intrepid?" said Cummins severely.

"Intrepid is heading on a flight plan to insert itself into high earth orbit."

"Why on earth did you tell us you were on that ship?" said Cummins.

"We believe Intrepid is less dangerous than Resolution in Northern's eyes. As I explained, we didn't want the news of Resolution and her crew returning getting out too soon."

"Resolution, what about the crew of Intrepid? Are they aware of your actions? Are they safe?" asked Ward-Hennicke.

"I apologise for keeping this from you until now but both crews are here on board Resolution."

"Jesus!" said Brandon. Ward-Hennicke raised both hands in a gesture of disbelief.

"How many of you?" said Cummins.

"Seven."

"I am breaking communications now. We have things to discuss here."

Some distortion

General Connors and Colonel Harkness were waiting. Connors was tapping the index finger nail on his right hand against the conferencing screen on the table. Both were watching the wall screen linking them to the space monitoring system, which was showing a schematic of the moon and its environs.

"Intrepid has emerged and is broadcasting her position and planned orbital insertion." said Phillips' voice from the screen speakers."

"Can we see them live?"

"Sir, we're having a slight problem with the imaging. We're getting some kind of a spurious image, a sort of distortion."

"What do you mean by a sort of distortion?"

"We have a er – blurring or thickening of the image, sir; like an unresolved stereo image. We don't know why – and the dropout in the drive signature has increased."

"Put it up on screen as it is. Where is the insertion point they're heading for?"

"Not so very far from our recommended position, though further off than anticipated. She has made some course alterations which must have brought her very close to the surface of the moon."

"I need to speak to them now." said Connors

The General's phone started vibrating in his battledress pocket. He pressed the pocket and it stopped.

"Sir, we're not getting any person to person response, no crew replying. The ship is broadcasting detailed flight vectors continuously, updating every 15 seconds. "

"Are they targeted?"

"Yes, sir – by two orbital Nemesis 2s. The ship's still a long way out but it's not trying to hide."

The phone started vibrating again. "Wait!" he said to it and it stopped.

"Put the plot up now and let me know at once if it deviates at all from the path it's given us,"

"Yes, sir"

"What is it Salmana? I have an errant spacecraft to deal with here." As the general listened he started opening and closing his right hand with some vigour.

"Rescue! What are they talking about? It doesn't look as if it's in trouble. It's heading for a more or less normal orbital insertion point. Wait a moment Salmana! Phillips, I see the double plot but the two images seem to be separating from each other. Are you sure it's spurious?"

"We're beginning to think not, sir. We can't find a reason for the glitch so we are forced to the conclusion that there are two objects moving on gradually divergent trajectories."

"Jesus wept." said the general. "Target the other one, now!"

"With one of the two Nemesis already targeted on the Intrepid?" said Colonel Harkness. "It would be the nearest and quickest to deploy."

"Yes, obviously." said Connors. "Salmana, what else did the Commissioner say?"

There was a chattering cricket sound from the phone.

"Widely observed, did he? He's not in a position to threaten us, I think. Get back to him and say that we are in contact with the ship and there is no evidence of an emergency or need for rescue. Tell him I would look on such an act as totally unwarranted interference in our affairs, as a misuse of his and the UN's authority and that there will be the gravest consequences if he continues on this course. Do you think that will stop him?"

"Yes, I suppose you're right ... but what kind of contingency plan? They don't have any money, do they?"

"Yes, get back to me immediately and ask him to contact me directly. Phillips, could the second object be one of our ships?"

"It could, sir. It's decelerating quite fast, slightly faster than the Intrepid."

"Would its current path take it anywhere near the ISS?"

"I'll have to check that, sir."

"I need to know before you decide to take a lunch break or a month's holiday, Phillips. At once!"

A snoot cocked

Director Harding was doing his best to explain the situation to the Commissioner before he had to deal with Northern again.

"As I understand it the crews are all on the second ship, Resolution, and are using the Intrepid as a decoy or at least a distraction. They were also using it as a relay for contacting the ISS; they were that anxious to conceal their presence on Resolution. The crew are frightened that Northern will take a very extreme view of Resolution and her crew's return to anywhere but their own tender care."

"I see. So perhaps I can say that from the UN point of view the name of the vessel is at the moment unimportant; we have had a request for emergency help, a rescue in fact, as we understand that life support is failing. We will inform them as soon as we have made certain of the identity of the vessel, if it is theirs, but in the meantime the international agreements on the obligations of space vehicles and stations towards those requesting help are of course paramount."

"You realise that Northern Command won't believe you don't know the identity of the craft."

"Yes, perhaps it is a pity you told me – but I have had satisfactory if not enthusiastic replies from both their rivals, so I think I can safely keep General Connors in check for now. I understand that the environs of the ISS are being particularly well monitored at the moment and the drama of a

space rescue will feature luridly on newscasts around the world. Make sure the ISS staff and the rescued crews are prepared for temporary celebrity."

"And we are still OK to offer them asylum?"

"In principle, yes, but let's leave any public commitment as long as we can and let's try to manage it discreetly when the time comes, if Northern will let us. I'm hoping they will realise that they are not immune to public disapproval and that their influence over us has its limits too. After that maybe we can negotiate."

"I think Cummins will listen to me. He's not too happy about receiving another seven unwanted guests, especially as they have deceived everyone there, will possibly raise questions about the non-aligned status of the station and be a severe strain on resources, though the others up there, Brandon, Warde-Hennicke and even Jim Carey, are too curious to make any objection I think.

"Let's keep the identity of the ship quiet for now. I'm sure Northern will find out very soon - they may already know. I'll keep you informed of all relevant developments. Harding., you don't know how much good it does me to cock a snoot at Northern."

With this quaint remark the commissioner broke off.

Star status

On board Resolution they were waiting, crowded together in the largest of the Resolution's chambers, the communal dining/living area. The ship was decelerating hard enough to be uncomfortable but not enough to have to strap in. It was crowded together in the small space. The comms point was showing repeated alerts for incoming messages, all of them on Command's default channel. They had disabled the automatic transponder and accepted none of the calls and had left the apparatus switched to the ISS channel, waiting. Mallinson was rubbing his fingers together, making a dry, rustling sound. Caz was wondering whether asking him to stop would make the atmosphere any worse. Aleksa saw her looking at Mallinson's fingers, caught Bjorn's eye and nodded in their direction; Bjorn understood and grinned at Aleksa, and then winked evilly at her.

"Don't you think we'd be better off actually listening to what Command is saying?" said Bjorn. "This waiting in ignorance is nerve-wracking."

"If we open the channel to Command, the systems will exchange handshakes, giving away our identity immediately." said Nikola.

"Surely they know already," said Mallinson.

"Probably," said Allans "but don't we need to have the offer of asylum before we talk to them?"

"I suppose so," said Konrad. "Northern won't pay any attention to asylum offers."

The ISS channel started a faint live static and a voice said "Hello Resolution. This is

Administrator Cummins on the ISS. Do you hear me?"

Allans looked at Bjorn who pressed the send button and nodded.

"We hear you." said Allans.

"We have agreed to help you. We will treat this as a rescue operation to save lives in the first instance," said Cummins. "Northern have been informed of the emergency though there is some confusion over the identity of the stricken ship, not our fault I think you'll agree. At some point in the future we are prepared to accede to your request for asylum if you agree to following our timetable and instructions about making the formal request public – and on condition there are no more surprises about who or what you are. Do you agree?"

Allans looked at the others; there were no hesitations.

"We agree," he said, "and thank you."

"Who is speaking? Do you have the authority to speak for everyone?"

"My name is Allans, senior officer of the Resolution. We are all seven together here and all agreed."

"Very well. Talking of numbers, some of you may have to stay aboard; we're not a hotel. We can supply emergency oxygen or even link you up to the station's air supply. What is your approximate ETA? "

Allans looked at Aleksi who pointed at a reading on a screen.

"Navigation says time to orbital insertion at matched velocity approximately 2 clicks anticlock of you is 235 minutes," he said.

"That 's very close to us but it's about what we reckoned here as well. By the way, I don't know what state your life support is actually in but we will be filming the rescue operation. A news film crew may also find its way up here by the time you arrive, though we will try to monitor what they can actually film. Some degree of preparedness for celebrity victim status might be useful as would a consistent and believable story. Easiest would be a short survival margin, let's say less than 15 minutes air supply."

"That isn't so far from the truth with the 7 of us on board. We are hoping it all sounds like a believable emergency situation anyway – that failing life support on the Intrepid forced us all into the Resolution. Those margins are always estimates anyway, depending on other conditions and human variability."

"Good. We seem to be in agreement. We will start preparations. Prepare to be media stars. Will be in touch again shortly."

"Again, thank you."

The channel went dead.

"I've always fancied myself as an actor," said Aleksi. "Perhaps I could have one arm in a dashing sling or a romantically bloodstained open shirt."

"I'm sure we could manage the latter." said Caz. "Just poke your nose out a bit further."

"I don't think we'll need to act very hard," said Konrad. "We will all look grubby, exhausted and desperate – without needing any talent, if we get there."

"Command has nearly four hours to prevent our 'rescue'. Bjorn adopted a grave, official voice. "Tragically the crew of the two ships were overcome by apoxia before they could dock with the ISS and their ship, the Resolution, left without human control, burned up in the atmosphere. Our thoughts are with their families and friends at this time."

"Well, they would do it, I'm sure - but could they get away with it with everyone watching? Missile attacks are hard to disguise." said Allans. " and they must pay some attention to their public image."

"We'll soon find out one way or the other." said Mallinson in doom-laden tones. "The readiness is all."

"You may be ready to die, Mallinson, but you're not speaking for me or the rest of us." said Nikola.

"Don't worry," said Mallinson. "I'm not the self-sacrificing type either - just can't resist a Shakespeare tag."

Who's rescuing whom?

"Sir, we haven't had any response from either the Intrepid or the other ship. The profile of that ship matches that of the Resolution as far as we can tell, but imaging is difficult."

"Why aren't we getting an automatic id from the transponder?"

"We assume they've shut down everything like that."

"Are they heading for the ISS or nearby?"

"Not nearby - directly at it, sir."

"And the Intrepid?"

"No change - still decelerating and heading for orbital insertion at the expected altitude, still broadcasting its position and intended path."

The General's phone buzzed and he waved at his pocket. He waved again and the buzzing fly vibration coming from it resolved itself into Salmana's contralto. "General, there is a live broadcast from a news crew intending to rendezvous with the ISS and the 'stricken ship' as the

anchor puts it. There is also an interview with the ISS chief promised momentarily. Thought you should know."

"Salmana, forgive my language, but I need to speak to that devious bugger Leonhardt directly, now and at once."

"He's playing hard to get - 'yes, of course I'll call him as soon as I have a minute' that kind of thing."

"Tell him that relations between Northern and the pathetic remnant of the UN he works for will be terminated if he doesn't get in touch with me in the next five minutes. What channel is the live broadcast?"

"Most channels, general. Universal for a start."

"Harkness, can you get that displaying in here?"

"Yes sir. Should be straightforward."

"That'll be the fucking day" said the general. "Salmana, I'll call him myself. Bye. Harkness, will you?"

"Yes, sir. The broadcast's up, as you can see."

One of the smaller screens on the wall was showing a library shot of a spacecraft docking with the ISS; an excited voiceover was saying "This is essentially a life or death race. Will the oxygen supply last long enough for the crew of the stricken ship to reach the safety of the ISS alive?" At this point the screen showed an image of the reporter wearing a light spacesuit with the helmet in her hands. "We will be bringing you live coverage of this event directly from orbit and the ISS; Universal first with the news, even in outer space."

General Connors growled.

"Commissioner Leonhardt, sir." said Harkness, indicating the screen in front of him.

"General Connors, I was about to contact you, a courtesy call, just to update you on the emergency involving one of your ships." said the image of the Commissioner.

"Well, thank you, Commissioner. I have been trying to reach you myself as you are no doubt aware. What is this stuff about an emergency? Our ship the Intrepid is making a routine orbital insertion manoeuvre."

"Ah yes General, there seems to be some confusion about the identity of the vessel. It may not be the Intrepid, but it is certainly one of your ships asking for emergency assistance - a life support problem I understand. Apparently it should be attempting to dock with the ISS in less than 2 hours now."

"What is the status of the crew? Who has been in contact with them?"

"I'm afraid that's all the information I have at the moment. Obviously I'll keep you informed of any developments."

"Commissioner we are of course very grateful for the help from the ISS but it is imperative that we have the crew back for debriefing and possible treatment as soon as possible. We can have an orbital shuttle up there in a few hours. Obviously they can't stay on the ISS."

"I quite understand, General, but I think we have to wait until we know more about the condition of the crew. In any case it would be unsafe to have any more traffic near the station until your ship has been docked and its crew secured and the news crew, who have no right to be there really, have been persuaded to leave. "

General Connors snorted and pressed his nostrils together with the thumb and forefinger of his left hand. His voice rose in pitch a little. "Make sure they do leave, Leonhardt. I intend to have a shuttle up there within three hours and I expect the crew to be ready for transport to Earth as soon as it docks, within an hour after their...rescue." General Connors made sure the Commissioner noticed the edge of scepticism on the last word. To his surprise the man smiled serenely.

"I'll do everything possible to make things go smoothly of course. However, my first priority must be to provide the critical life support requested."

"Commissioner I want ISS docking permission for a Northern shuttle officially granted and recorded in the next twenty minutes." said Connors with exaggerated precision.

"I can't promise that at the moment ." said Leonhardt "but, as they say, I'll do what I can."

The General looked at Colonel Harkness and raised his eyebrows a long way; the colonel spread his hands and shrugged.

"I was hoping I wouldn't have to spell out what's at stake here, Leonhardt." said the General. "This is of vital importance to us - our continued support for your institution depends on your reasonable cooperation."

"We would of course be devastated to lose your support." said Leonhardt, not sounding particularly devastated. "It is of inestimable value to us and looking elsewhere for it would no doubt be challenging - but we would of course be forced to look elsewhere in such unfortunate circumstances. In the meantime I will get in touch with the ISS and let them know your priorities. Any developments and I'll get back to you." His image disappeared.

"I think the bastard's got some kind of a fallback plan worked out. Have you got anything on it, Colonel?"

"We do know there have been meetings and some increased message traffic but no idea what it's all about - until now. I think he's made a deal and thinks he can survive without us."

"I want two shuttles prepped, armed and ready to rendezvous with each ship and take the crews off. We'll keep trying to raise the crews on the Command channel. Can we take control of the other ship remotely?"

"I think they must have isolated the ship's computer from external comms, so no - unless they turn on the command channel and switch to computer control."

"I thought we had made that virtually impossible. That makes me fear the worst about what we are dealing with. Are they still targeted?"

"Yes, General, though we only have a small window before they are too close to the ISS and all the other traffic in or near that orbit."

"And the Intrepid?"

"Only an hour away from insertion point and still nothing but the automated position and displacement broadcast."

General Connors turned to look at the small screen relaying the news broadcast; it was displaying the head and shoulders of the reporter against a background of a control panel full of blinking lights. Her long dark hair was floating in a dramatic halo around her head and her elegant space helmet was clutched against her chest. "In less than an hour," she was saying, "we will be rendezvousing with the ISS and observing the rescue first hand. There appears to be some mystery surrounding the identity of the stricken craft and its crew; we are getting conflicting reports of its name and the number of its crew. We have heard the names Intrepid and Resolution, both Northern deep space exploratory craft, and some put the number of crew at risk at three but an ISS source has suggested it may be as many as seven. Let us pray that they reach the station in time."

The General scowled. "I strongly suspect that they will and there is nothing much we can do about it. Get that shuttle up there whether we get docking permission or not. Make sure it looks armed; I want it bristling with weapons. How soon can that be done?"

"It won't reach the ISS before the ship."

"How long after?"

"About half an hour."

General Connors narrowed his eyes and appeared to be focusing hard on the surface of the desk. Colonel Harkness watched him and waited. There was a long pause.

"Can we take control of the Intrepid remotely?"

"I imagine so - it seems to be entirely under ship computer control anyway."

"Right! Continue with the one shuttle to the ISS but abort the Intrepid bound one. Get me immediate control of the Intrepid's nav systems!"

Welcome news

"The Universal vessel will be here a few minutes ahead of the Resolution. They are requesting docking permission as well." said Slater.

"Tell them to stay at least 10K clear until the Resolution has docked. Tell them there may be interviews once we have assured the survival and well-being of the crew." said Cummins.

"Let's hope they listen!" said Ward-Hennicke. "They can be a menace. How close is the Resolution?"

"26 minutes plus." said Slater

"Are we able to run the automated docking system from here in the usual way? A Northern spacecraft is a first here, isn't it?" asked Ward-Hennicke.

"A first for a space-going craft but we have had Northern shuttles here," said Cummins. "It shouldn't be a problem with the crew cooperating. What about the Northern shuttle?"

"Can't be here for at least another 50 minutes but I am getting its requests for docking permission on an automated loop," said Slater.

"Are we going to have to leave some of them on board the ship? Can we accommodate them?" asked Brandon.

"Well, Stretzer decided to cut her programme short after your conversation with her and the two climatologists left with her, having finished their slot. We postponed their replacements. Since we were at 2 below capacity for comfort reasons that means we will be 13 over full complement, or about 35%. Luckily the air supply is very efficient nowadays, but we will have dangerously limited backup oxygen in any emergency. Food and water were resupplied by the shuttle that took the three down. What we have to do is find somewhere for everyone to go in the near future," said Cummins.

A screen started blinking between red and black, showing a priority incoming call from Director Harding. Cummins nodded to Slater, who put it on speaker.

"Mike, the other ship, Intrepid, is no longer heading for high altitude orbit but is accelerating in your direction."

"How long till it arrives?" asked Cummins.

"Somewhere between 30 minutes and 45, depending on the severity of its manoeuvres."

"This is unacceptably dangerous," said Cummins. "We can't have two ring ships and two shuttles all trying to dock with us. There will be an accident. What are Northern playing at? Do they know the Intrepid is unmanned?"

"Either know or guess, I think. I haven't heard from them. You must warn the incoming crew. I suspect the Intrepid may try to intercept them. I'm sorry to have landed you in this shit storm."

"I'll warn them but what can they or we do about it? For that matter what can Northern do with the Intrepid, short of firing on the Resolution or ramming it?"

Cummins rubbed his nose and looked questioningly at Brandon and Ward-Hennicke.

Brandon shook his head. "I don't believe they would risk that so close to us and in this orbital sector - high velocity debris could kill us all and destroy the station, not to mention the damage to the many smaller satellites within range."

"Let's hope you're right. " said Ward-Hennicke. "On the other hand the move might give the crew more believable justification for seeking asylum. "

"Er - would it help if we informed the Universal News lot of the situation so they can point their cameras in the right direction." said Slater

Cummins looked at her in evident surprise. Ward-Hennicke snorted a stifled laugh.

"Excellent!" he said, "as long as none of us ever have to meet General Connors face to face."

"We'd better ask the crew to open the channel to Northern to find out what line they are taking."

"Slater, priority signal to Resolution, saying we must speak with them now. Send approximate coordinates of the Intrepid and Resolution to the Universal News vessel and explain our fears of confrontation. When the Resolution lot reply put them on speaker. I'll leave your channel open and on speaker too, Director. " Cummins turned to the others. "Is there anything else we can do?"

"That depends on what Northern intend and on the exact coordinates of the two incoming ships and the timing of their arrival. If we have a suitable shuttle prepped we might try to take them off Resolution some distance away before Intrepid reaches their trajectory." said Brandon.

"Hello ISS, this is Resolution. Problem?" said Aleksis's voice.

"Resolution, Intrepid has changed course and is burning hard in our direction. It could arrive before you. Northern has not communicated its intentions. Please switch on whatever channel you use to Northern Command. We need to hear what they are saying."

"We knew they would try to stop us somehow. I'll open the channel and put it on speaker so you can hear directly.

There was a pause and then a faint voice, quickly swelling to a roar and then merely loud as someone adjusted the volume.

"..attempt to dock with ISS. We are sending the Intrepid to take you off before life support fails on Resolution. Make preparations for rendezvous and docking at these coordinates.

Acknowledge these orders at once. We will view contravention as disobeying an order in a

conflict situation. Do not attempt to dock with ISS. We are sending the Intrepid to take..."

The voice suddenly sank to a background mutter.

"So much for the story that life support on Intrepid has already failed. Presumably Northern have remote diagnostics which confirm everything is still working." said Warde-Hennicke.

"We could try telling them they're wrong, that we know better than any remote sensor. I'm sorry I don't know who that was." said Aleksi.

" Ward-Hennicke - no time for introductions. Will they believe you?"

"I don't think it matters. They'll send it anyway. If we die it's just a failed rescue attempt." said Nikola.

"It may seem bizarre but we have alerted the news crew from Universal to the Intrepid's arrival - we thought it might have a dampening effect on things." said Cummins.

There was laughter on the Resolution, some conversation inaudible on the speaker and then Nikola said.

"Can't do any harm, I suppose. Do you have any other suggestions?"

"This is Director Harding in ground control. We could tell Northern you have asked for asylum now or we could add our voices to yours on the story that life support is out on Intrepid and that their remote diagnostics are wrong - that the risk to you is too great."

"Or we could make avoidance measures." said a Scandinavian accented voice.

"How?"asked Brandon.

"We could make manoeuvres like we are intending to rendez-vous with Intrepid and then take off for you."

"Then they really might fire on us," said Caz.

"They'd almost certainly hit the station, since we'd be right in line with it." said Allans.

"Or we could just ignore the Intrepid and keep on our merry way." said Aleksi

"Judging by our plotting of the Intrepid's course that would lead to a collision. Northern is requiring you to decelerate hard to allow Intrepid to match velocity with you when in position between you and us." said Harding

"That must be a fairly edgy calculation. I think if we slightly buggered things up at the last moment we could sneak by. We will need precise coordinates of course." It was Bjorn again.

"We can provide continuous tracking data from here if you can set up a high speed link with us. I'm not an expert on comms or tracking so I don't know how compatible our systems are. " said Cummins

"Not very, I'm sure, knowing Northern design ideas," said Aleksí , "but we'll manage. I'll set that up as soon as you let me know the details."

"If that's our plan," said Allans, "we'd better acknowledge Command and tell them we are complying with the order to rendezvous with Intrepid. How do we explain our behaviour?"

"It doesn't really matter." said Mallinson. "They won't believe a word of it. Perhaps Caz could say she has regained control of the ship and has us under restraint. It would have a creepy de-javu feel to it."

"Sounds as good as anything else we could invent. You up for it Caz?" asked Aleksí.

"I suppose." said Caz. "It can't make my position any worse."

"Harding, can you send the tracking stream directly to Resolution and to us so both sides know what we are doing?" asked Cummins

"I'll get that set up immediately. I'll be monitoring events from here of course. Good luck to all of you."

Coming together

On board Resolution most people were just chewing their fingernails while Caz managed any communication from Command and Nikola and Allans updated calculations according to the plotting data received of the relative positions of Intrepid, Resolution and the ISS. The Intrepid would be coming up from more or less behind them and was already visible as a fast moving blip on a radar screen. Its projected path appeared to join their own, apparently threatening imminent collision. Mallinson, Aleksí and Konrad were all watching the radar screen intently; Bjorn was watching the data feed of the relative positions of the ships and also watching Nikola and Allans instructing the computer how to process it. Noone was speaking; the air was getting uncomfortably hot and the oxygen content was set to low so that they were all slightly short of breath and of energy, listless and anxious.

"Resolution, this is Command. Intrepid will be within transport distance and synced to your delta v in 13 minutes. Please acknowledge. You must increase deceleration about one minute before Intrepid's arrival, on our signal, and transfer control to us via the ship's computer. Failure to comply with this order will be treated as a hostile act." The voice was unknown to Caz but it didn't sound warm and friendly.

"Acknowledged, Command. We await your signal." she said.

"I think that was Colonel Harkness, the General's exec." said Aleksí.

"Their calculations match ours to a very high degree of accuracy. They will take up position between us and the ISS at a distance of only a few tens of metres from us one minute after we cut our engines." said Nikola.

"I think we have a solution but it'll be a little uncomfortable. Since we will have lost over a minute's deceleration and will have to accelerate and change direction to give Intrepid the slip, we will be approaching the ISS very fast; deceleration will be brutal." said Allans,

"Surely Command can easily outrun us with the Intrepid, not having a crew to worry about." said Mallinson.

"They certainly could but they will be playing catchup and we are almost on top of the ISS; they shouldn't be able to get between us again in the time. As for firing on us they would risk damaging or even destroying the ISS in plain view of a world television audience." said Allans.

"Let's hope we're not that important to them." said Bjorn.

A tone sounded and all eyes turned to the radar screen. There were now two blips, the new one moving slowly in the bottom corner of the screen. After half a minute it became clear it was creeping diagonally towards the centre.

"That must be the news crew." said Aleksi. "You have to admire their idiocy. Are they going to get in our way?"

"They know the Intrepid is arriving any minute. They should have enough common sense to keep their distance." said Nikola.

Everyone was staring at the screen on which the two green blips were clearly approaching each other, apparently intending to meet at the centre of the screen, which meant colliding with them.

"How far away are they?" asked Caz.

"About five minutes," said Allans. "Our solution calls for us to increase deceleration according to their instructions but then to continue to decelerate hard for about two seconds longer until we have a direct solution for the ISS needing only a very small heading correction. We will have to cut our deceleration thrust completely for about a second, sending us past Intrepid very quickly and risking some damage from their drive - as it will of course be under thrust to match our deceleration. So we'll have to strap in. I suggest everyone not actively involved in the manoeuvre or comms does that now. Caz, will you manage comms until things kick off. Let ISS know what we are doing and tell Command we are ready."

The four spectators moved to the straps and padded recesses spread around every chamber, but all chose positions from where they could see the radar screen. The blip the assumed was representing the news crew was still edging towards the centre of the screen and the Intrepid's trace looked to be almost there.

Caz sent ISS details of their intended manoeuvre and its timing and then called Command.

"We are prepared for the arrival of the Intrepid and awaiting your signal for our deceleration correction."

"Ok. We're ready and the whole manoeuvre is programmed in. We'd better strap in quickly," said Allans.

They strapped in and then they all waited, eyes on the screen. The larger blip was now dead centre but the smaller one seemed to be slowing.

"How did we get into this position? Did I do anything to deserve this?" asked Aleksi.

"Maybe it was allowing yourself to be taken over by sinister alien powers?" said Bjorn.

Mallinson abruptly lurched forward against his straps and clutched his head. He gasped.

"We're being targeted." His voice was hoarse and strained, as if squeezed out in severe pain.

At the same moment the signal came through from Command, the deceleration warning sounded and the Resolution's drive went to near maximum. The padded frames swung out under them to counteract the doubled pressure. A whooping alarm sounded and the lights started flashing between white and red.

"Proximity alarm." said Allans. "Hope they've got this right. Are you OK Mallinson?"

Mallinson nodded, but hesitated before replying. "I'm fine - the threat's gone - thought they were firing." He was white-faced, but almost collapsed with relief.

The alarm stopped and the lights returned to normal. Then all sense of weight disappeared; they were floating against their straps. A moment later the proximity alarm and light flashing started again, something in the ship's structure creaked and groaned and there was a series of sharp reports, like paper bags being smartly popped. Then they were floating in eerie silence for a while until the deceleration alarm sounded again and a stentorian version of the ship's computer voice was intoning. " Severe deceleration imminent. Strap in and brace."

Monitoring events

General Connors was watching the whole thing from multiple viewpoints. He had the advanced radar display, showing the position of the three ships, which should have been only two. He had the feed from the Intrepid, showing its camera views and its radar information and he had the Universal broadcast, with an excited commentary from their star reporter. Their ship was uncomfortably close to the rendezvous point, giving them excellent shots of the approaching Intrepid but considerably increasing the risk of a miscalculation by somebody. The Intrepid and the Universal shuttle were both burning to match speeds with the Resolution, which was decelerating from interplanetary velocity towards the ISS. It wasn't a situation to try daring manoeuvres in.

"Any moment now we should see the relief Northern ship, the Intrepid, racing towards the Resolution to take off the survivors before their oxygen runs out." said the reporter breathlessly, in another brief head and shoulders pose, clutching her helmet to her chest before the camera

switched to the small triangle of fierce blue flame that was easily the most noticeable mark of the Resolution's position, though its dark ring shape could just be made out through the Universal's telescopic lenses. "Let's pray they are in time."

General Connors grunted. "How do they know so much? Their timing is too good to be chance. Somebody must have briefed them."

The reporter's voice rose in pitch and volume as a bright speck appeared moving across the blackness from the left towards the Intrepid. "There it is, I believe," she cried. "It will match velocity with the stricken Resolution. What we can see is its drive exhaust as it decelerates."

On the screen the speck grew rapidly until it was also a small triangle of blue flame. The Resolution's exhaust grew brighter and the two triangles appeared to draw closer and closer until they appeared to merge and a smaller dark ring could just be made out like an echo or reflection of the Resolution.

"That's it. They have matched velocities. Now we have to wait for the two ships to dock, a difficult manoeuvre as they are both still decelerating towards orbital speed," explained the reporter, showing off her expert knowledge.

On the screen the Resolution's triangle of flame still burned brighter and began to separate from the other, moving away from its companion ring.

"Something's wrong!" shrieked the reporter. "You can probably see the two ships have not docked. The damaged ship is separating from the rescue ship. I'm going to ask our space rescue expert, Professor Matthews, what is going on? Has something gone wrong, professor?"

"They're evading us" said General Connors. "Warn them that we will fire on them if they refuse to dock with Intrepid."

"Let's hope they're listening."

On screen the voice of Professor Matthews was busy saying very little in an academic manner. He was interrupted by the reporter as the Resolution's flame abruptly disappeared and it shot past the Intrepid, so close it seemed to go through it.

"You must be able to see this - the stricken ship has raced past the rescue ship and is now way ahead of it. Where is it going? Sorry, professor, there's too much going on. What can it mean?"

"I think we can guess," said General Connors grimly. "And no doubt we will find that targeting them will involve risk to the ISS and pursuing them will be too late. They're well trained. Have they acknowledged our warning?"

"No sign that they have received it. Not even a receipt from their comms unit I'm afraid.

"How long till they reach the station?"

There was a pause as the Colonel asked some hasty questions of the tracking station computer.

The reporter was saying shrilly. "It looks like the rescue ship is chasing after the one in trouble. You can see them on screen." The screen showed the two drive flames and the tiny outlines of the ringships in reverse order, the smaller one perhaps slightly narrowing the gap between them. "They are both heading for the International Space Station. Nobody seems to know what's going on!"

"A couple of minutes," said Harkness. "They are decelerating again, uncomfortably hard, but they should match with ISS OK in around 2-3 minutes."

"Get me Cummins on the ISS - before they arrive, please."

.....

On board Resolution deceleration was slackening, breathing was less of a struggle and speech was becoming possible. All of them except Konrad had positioned themselves in harnesses where they could see the radar screens but the images had been hopelessly blurred by the pressure on their eyes and understanding what was represented there had in any case proved altogether beyond them. Nikola was already checking the status readout from the computer.

"We were acquired as a target, for a moment," she said.

Mallinson, who still looked pale and shaky, widened his eyes at this announcement, but said nothing.

"Yet they didn't fire on us." Konrad looked around as if not quite sure.

"Unless this is heaven," said Aleksi.

"If it is, the Intrepid is keen to join us there. It's right behind us." Bjorn had also crossed to the control console and was pointing at the radar screen where the Intrepid's blip was almost central. It showed the Universal craft moving towards them as well.

"We don't want it between us and the ISS. That will be its aim I'm sure." said Nikola.. "We'd better get ourselves onto that shuttle."

"We're heading pretty close. I don't think they can risk squeezing between us." Allans was checking the computer's calculations for their shuttle trip.

"If I were Connors I'd attack the shuttle – that's where we're most vulnerable. It wouldn't take much to puncture that mobile tin can. " Aleksi remarked helpfully.

Caz scowled at him. "Trust you to come up with something like that just as we're all going to have to climb into it."

Konrad turned towards Nikola and Allans, grinning. "If I have understood the master plan correctly we will have the Resolution between the Intrepid and us in the shuttle. Have I got that right?"

“That’s the idea. We’re hoping they won't risk shooting round corners. Everything seems in order here.” Allans looked at Nikola, who nodded. “Let’s get into the shuttle. We should be synced with ISS in a couple of minutes.”

They crowded round the shuttle bay, leaving the Resolution in the hands of the computer. It took them several minutes to get aboard; it was a a very tight squeeze. By this time deceleration was over and they were weightless, which made arranging themselves slower but less painful. Eventually they were able to tell the ISS they were waiting for permission to dock.

“I always thought space was at least spacious,” said Konrad. “We are packed in very much like sardines in this tin can and the traffic outside is like Hyde Park Corner”

“Where is the Universal camera going to be?” asked Aleksi “I must practise my careworn but undaunted smile.”

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“I understand the legal point you are making, General. You may be right that military law should apply to the members of your crews but they have asked us for asylum. International law makes it clear that, if there is a challenge to their asylum request, it is our responsibility to give them safe harbour until the question is resolved.” Mike Cummins was watching the comms screen as if he was afraid it might rush forward and engulf him.

The general’s face did seem to swell as he apparently drew closer to his own comms device.

“Don’t quote international law at me, Administrator. You know very well that you have every right to turn down their request if you have good reason to believe it is ill-founded and they are not facing any real danger. I am formally requesting that you do not protect these mutineers, who have hijacked one of our most advanced space vessels and are a danger to you and themselves.”

“At the moment I have no information either way and certainly not enough to turn down such a request. In any case it's too late; I have personally granted their request and they are about to transfer to us. I must ask you to make sure that neither of your vessels interferes with the transfer process and that they keep a safe distance from us.”

“I consider your actions illegal and should warn you that allying yourself in any way with these individuals is a breach of the neutrality guarantees underpinning support for the ISS.”

“You will have to challenge my decision in the usual way, general, starting with a UN tribunal. I have to go, I’m afraid.. “

Cummins closed the channel and turned to Slater, who had been waiting her chance to speak.

"They're ready," he said. "So are we. Shall I get them started under remote?"

"Yes, better get them moving before anyone does anything silly. Where are the others?"

"The Intrepid is settling into orbit just the other side of the Resolution, right on top of it in fact; the Universal module is only a few thousand metres away, in a marginally higher orbit."

"Ok, bring them in." Cummins turned away, stopped and turned back. " But I want to talk to whoever's in charge on the Universal vessel."

Timing

The environmental system on the module was on the same setting as the mother craft, a thing they hadn't thought to change. As a result it was hot, airless and smelly on board. Everyone was suffering from the tension; the improved mental 'balance' the recruited claimed didn't seem to be any protection, Caz noticed. The atmosphere wasn't helped by the proximity alarm which started as the Intrepid moved into orbit dangerously close to them. Aleksi worked away negotiating protocols and channels with the ISS computer for several minutes and then released manual control; the ship's computer immediately started displaying protocol exchanges to establish a control link.

"Well, at least that worked." Aleksi sounded genuinely relieved; the module's system had been very reluctant to talk to the ISS. They felt the pressure and vibration as the thrusters fired and they began to move away from the ship. The proximity alarm stopped.

"Looks as if the ISS is using the Command default channel. That's rather cunning of them," said Konrad, sounding impressed.

"You're right," said Aleksi. "Thought it all looked familiar from training. Do you think..." He was cut off by a loud beep from the comms unit. "Resolution, could you release your navigation computer. We can't establish the link."

"It's Command - they've hijacked us." shouted Mallinson. Konrad reached the panel first and hit the manual override. A warning tone sounded and the module's nav screen displayed the message 'Vessel is under thrust in pre-programmed manoeuvre. Manual override is unavailable until the current manoeuvre is completed or aborted. Abort manoeuvre?'"

"Press it again!" said Nikola. The acceleration ceased. The screen announced 'Emergency manual override. Thrusters off. Awaiting Instruction.'

"We'll have to time it very precisely. ISS will have to take control the instant we relinquish it." said Allans. "Can we organise it so switching from manual automatically sends them a signal?" asked Bjorn.

"That's what it does when linking to Command or a Northern vessel." said Allans.

"You mean we sent Command a signal when we switched from manual to computer navigation?"

Mallinson wailed.

Aleksi twisted himself towards Allans as far as he could. "The default setting for a remote operation link is of course on the Command channel and frequency?"

"Yes, I should be able to find that and shut it out, at least for a docking manoeuvre." said Allans.

"I should have thought of that. Access is highly restricted though"

He managed the tortuous business of repositioning himself within reach of the panel controls and entered his commander's authorisation. It was not recognised.

"The ship's computer must have revoked my credentials when Caz disabled us. Caz, you'd better try yours. You are in command in Northern's eyes." He made way as Caz rolled into position by the panel but the computer also rejected her access code.

"I think those fuckers must have shut us out in the few moments they had access just now." said Konrad.

"Makes sense." said Aleksi. "So no way of setting up automatic timing of the link to ISS. Can we time the link manually?"

"Too slow," said Nikola. "Command would get there way before us."

"Couldn't we dock manually?" asked Caz.

"We might but the ISS would be very worried about it. Their docking system is designed for automatic control from their end and these modules don't have anything like their sophistication. It would be dangerous for us and for them." said Allans.

"How about our signalling laser? said Mallinson. "Could we set it up to fire when we switch from manual?"

"And they could instruct their computer to start the link procedure immediately on the Command frequency etc.. That could work." said Bjorn.

"Shouldn't be any slower than the automatically transmitted radio signal to Intrepid - I assume it only has to go to Intrepid. If it goes back to Command or a relay satellite the laser to ISS would be considerably faster."

"I think we can set this up. I'll explain to ISS." said Allans.

Scraping by

The ISS commander had been dubious but some consultant scientist had intervened apparently and said that it might be a Heath-Robinson arrangement but it was probably the only way to nip in first and establish the link. It had been nerve-racking when the thrusters fired again and they didn't know who had control of their overcrowded little shuttle but ISS had soon confirmed that they were moving in the right direction and under their command. There was a general relaxation

of cramped limbs, which led to Konrad's left elbow digging Nikola painfully in the ribs and Mallinson's huge feet missing Caz's nose by a whisker.

"Should be just a few minutes now," said Allans, when the upheaval stopped.

"Uh-oh!". Bjorn was pointing at the shuttle's little radar screen. A new trace was blinking, practically in the centre, and edging closer to it, towards them.

"It's not a missile - too slow. It can't be the Intrepid - that's still there." Allans stared at the screen. "What is it?" The proximity alarm started up again.

"It's right on top of us, whatever it is. Could they have remotely launched a shuttle?" Nikola twisted round to face Aleksi. "Ask the ISS what the hell is going on?"

"They can hear us if they're listening, which I bloody well hope they are." Aleksi pushed the call button but a vast sound rang deafeningly, as if they were inside a giant cracked bell, and they were thrown about against their harnesses by a violent shock.

"Collision!" shouted Mallinson. The ringing faded and they struggled back into position; the proximity alarm stopped again. No alarms were sounding and there was only the fading echo of the great bell-like clang in their ears and in their heads.

"No catastrophic damage apparently. Anyone hurt?" asked Allans. "Hmm, the radar screen is dead. Damage to the array probably. Do we have comms?"

"We must be spinning - or tumbling." said Caz, as she felt her body trying to swing against the harness.

"Resolution module are you OK?" came from the comms unit as she was speaking.

Aleksi looked around those he could see. "We seem to be. What happened?"

"The Intrepid launched its own module. It accelerated past you to take up position between you and us. We assume the noise we heard through our comms unit was the module brushing against your hull, in effect nudging you out of the way."

"Brushing nudging nothing! Try ramming and slamming!" muttered Mallinson.

"Shit. Where are we heading now? What do we do?" asked Nikola.

"Give us five minutes max. We still have your nav system responding to our commands, so at least that antenna wasn't damaged. We can correct your eccentric tumble and we think we have a fix for docking. This channel will be left open but we'll be busy here."

They were left to wonder and nurse their bruises, the silent comms unit their only link to the outside.

Making the news/ Live reporting

"Wasn't that amazing? We don't know exactly what is going on, but we have just witnessed the most extraordinary drama. Here is the replay coming up now. You can quite clearly see the two ring ships very close to each other. Now watch - you can see the docking module from the larger ship moving away, we think towards the ISS - we can't see the ISS in the frame, guys! Can we fix that? Now you can see the module from the second ship, the smaller one, being launched. It races after the first module, now it's overtaking it and we believe actually striking it, just there, see, pushing it slightly off course and making it spin slowly, nose over tail. Collision in space. Now we are back live. You can see both modules THERE! The first module looks as if it's correcting its course and spin and still heading for the ISS - guys, we still can't see the ISS - but the second is ahead of it and moving more slowly. Ah now we're back live and you can see all three - thanks guys! - the modules are very small in this view, but you can see both slowly moving towards the ISS, the big scaffoldy structure with all the little lights, that is the ISS. Doesn't it look pretty? Oh my, more excitement. I think the ISS itself is moving - I mean it's always moving of course but now it's firing its thrusters. We should get a splendid view of this as we are above the ISS, I'm told - in a slightly higher orbit and it looks as if it is coming our way." Her flow was interrupted as somebody whispered in her ear. She could be heard faintly arguing. "But this is the most thrilling bit of live reporting we've managed since the last....Oh, I see. Not very polite." She turned back to the camera. "Viewers I'm sorry but we've been told we're in the way of a rescue operation and are directly in the path of the ISS as it moves to higher orbit. We have to take a break here while we move away from danger."

The picture cut off abruptly and a station anchor appeared, promising to get back out into space as soon as possible after the commercial break. Commissioner Leonhardt smiled to himself. He had enjoyed the broadcast. He very much hoped that General Connors had been watching it too. "Harding!" he said out loud, not bothering to subvocalise. "Director Harding of ISS Ground Station?" asked his phone. "Yes," he snapped; he was sure there was only one Harding among his contacts.

"Are they managing up there?" he asked when the director's face appeared.

"I think so. As long as Northern, i.e. Connors, doesn't resort to firing on or colliding with the station. It's very manoeuvrable as you know and Cummins is rather relishing a bit of action I feel."

"I found the Universal broadcast highly entertaining and extremely useful. That last desperate tactic to get something between the module and the ISS won't be easy to defend. Going forward though it's the findings of the investigation team into the physical and mental state of the crews and of course their interaction with your other guests that most interests me. Do tell them to take precautions up there - I don't myself believe we are facing a threat from these apparently altered individuals but we must be aware of the possibility."

"They are well aware of that, Commissioner. Brandon is notoriously cautious and our biologist Rai is very capable and has already learnt a great deal about all this from the first lot of refugees. Curiosity can make Ward-Hennicke a bit unpredictable but he too has a remarkable nose for danger and threat."

"Good. I am hoping for the most fascinating revelations. Please refer Northern to me if they try to influence things in any way."

"I'll be very happy to." said Harding cheerfully. "And I am sure that Cummins will take an equal pleasure in doing so. I must get back to them now – the situation is about to be further complicated by the arrival of a manned, fully armed Northern super shuttle."

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There were random bursts of acceleration, which they heard and felt as vibration and some inner lurches, they supposed corrections in spin and orientation. In the background was the faint carrier signal hiss from the open channel to the ISS and the tiny mechanical relay noises as the navigation controls responded to the electronic instructions. What should have been a five minute transit, including deceleration and docking, seemed to be lasting an unreasonably extended time. They didn't talk much, concentrating on the sounds and sensations, half expecting another shattering impact from the other module, waiting anxiously for the deceleration and coupling clanks that would announce docking and promise escape from their now blind tin can.

In fact less than ten minutes had passed when the comms unit came alive.

"Sorry to be out of contact so long, Resolution, but we have been playing hide and seek with the Intrepid module. Calculations have been complicated but we are in higher orbit now and you are close and nicely lined up for docking. The other module is pursuing but it can't prevent you docking with us."

"Do you have any instructions for us?" asked Aleksi.

"No instructions. Just sit tight. Deceleration imminent. Be on your best rescued behaviour when you board as there are people who are waiting to meet you and the television crew are not far away."

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"So now you are witnessing the actual moments of the space rescue. The module with the crew on board has slowed and is approaching the ISS. Docking is about to take place. The second module has taken up position behind the first as if it is queuing up to dock. Nobody has any idea what it is doing there. I am told there is yet another Northern vessel on the way, a so-called super shuttle. That should be exciting to watch. Unfortunately we won't be able to see the members of the crew leaving the module as they will of course be enclosed in the bellows between the two airlocks - unless something goes wrong of course. If we zoom in now (Can we zoom in now,

guys?) we should be able to see the actual docking process; you can see the module seems to be touching the ISS docking bay; in actual fact there must be a small separation for the bellows to extend. That's what we are waiting for now.'

On the screen a bearded face appeared behind the star reporter and whispered in her ear. She looked surprised, then excited.

"I've just been told that the Northern super-shuttle is arriving. We should be able to see it if we switch cameras. Can we do that, guys? Yes, there we are – just a bright spark at the moment but it's really moving, I believe; we will soon be close enough to make out the shape; it's big, I'm told, more like a small spaceship than a shuttle. Let's go back to the main event, the space rescue. If we can zoom in on the other camera now guys, we should be able to see the bellows coming out any moment. Ah, I think they are already out, but not fully extended. You can see them moving very slowly towards the rescue shuttle in the middle of the screen – it looks as if they are growing out of the hull of the ISS. The rescue is under way!"

R & R

They were all crowded together in the small chamber next to the airlock, but at least able to stand comfortably in the artificial gravity and with space enough to move without injuring each other, which was a great relief. Caz was impressed by the way the civilian crew had coped with the rapidly changing situation. Docking and disembarking had been slow but had gone without a hitch. They were being briefed by a rather grim-faced, tall woman.

"Welcome aboard the ISS. I'm Slater, the security officer, among other things. We think we can provide rather crowded accommodation for you all without requiring anyone to stay on the shuttle, even though you are not the only unexpected visitors we are hosting. For now I must ask you to stay in your allotted accommodation as we have a number of issues to resolve and the station will become rather chaotic if everyone starts moving around freely. Follow me."

"Do we have refugee status? We are requesting asylum." asked Allans.

"I believe Administrator Cummins has granted your request for asylum on an emergency basis but it has to be ratified by the United Nations. It is one of the reasons why we must make sure there is no interference with the normal running of the station. I can't say any more. We do need to move along now." Caz thought Slater sounded distinctly edgy, not hostile but certainly with no time for friendly chat. She found herself next to Nikola as they followed Slater along the curving corridor.

"Something's still going on." she said quietly.

"I'm sure Command haven't given up yet." said Nikola. "I expect we'll find out soon enough."

“They can’t fire on the ISS. What can they do?”

Despite their lowered voices Aleksi must have heard. “Threats, bribes, legal bullying, gunboat diplomacy, that kind of thing. They have a lot of clout with the UN too.”

Slater led them some distance around the curve of the corridor and then into an oval chamber with two doors opposite each other and several curved platforms set into the floor at two different levels and running from the walls towards the centre.

“Sleeping areas are not arranged yet but there is room for you all to rest here. There is drinking water available from the blue taps but please ration yourselves; we are way over complement. There are dry food rations in the compartments under the lower platforms. The Station Administrator will be coming to talk to you later, probably with several others, no doubt with many questions, but for now you are free to rest, relax and recharge.”

“Thank you for everything and please thank the administrator for us.” said Allans. “We could certainly use a little down time.”

“No problem.” said Slater and left them. With some relief, Caz thought.

They spread themselves around the platforms, stretching out, unable to resist the space. Mallinson grunted as he extended his legs and arms. Caz found herself making birdlike wing motions with her arms, elbows digging into her ribs as she flexed her shoulder blades and back. Aleksi, lying flat on his stomach, was levering himself gently up and down with one arm, then the other. Everyone was occupied in some form of physical if weary celebration of the freedom to move. Eventually, after a prolonged suite of sighs, moans, heavy exhalations and even squeaks, it was Bjorn who broke into coherent speech.

"I wonder what they meant by people waiting to meet us." he said.

"If I were one of the people we lied to, I'd want to meet us." said Nikola. "I might have a few things to say about providing false information to request rescue in space."

"Well, there was an emergency; that was real, not false." said Aleksi. "Only the nature of the threat and the number and identity of the people involved were false. Minor details, really."

"Agreed, quite minor, really." said Bjorn. "But possibly not minor enough to avoid a bit of happy slapping."

"Let's explore the drawers and resolve the food crisis; even thinking of dry food rations is making me salivate grossly." said Konrad. He and Mallinson started pulling out the drawers in the platforms and handing round ration packs.

"Thanks, Mallinson. What happened to you back there on Resolution? asked Nikola.

Mallinson looked confused and embarrassed. "Just panic, I suppose."

"You looked as if you were having a stroke! You haven't panicked before."

"I don't know what it was. It was like a stroke, like I imagine a stroke; I think I nearly collapsed. I suddenly had an overwhelming feeling that we were under instant threat of annihilation – and a blinding headache. It only lasted a second or two and then there was wonderful feeling of relief, overwhelming.

"It was about the same time we were targeted by the Intrepid's weapons system; the fix only held for a second or two. I reckon they were just confirming our position and status." said Nikola

"Are you suggesting Mallinson is an electronics warfare cyborg?" asked Aleksi. "I have wondered about that."

"Who knows what you all are in your altered states!" said Caz, her mouth full of scientifically optimised nutrition bar. "At least Aleksi is still a smart ass."

"Don't use oxymorons with your mouth full." said Aleksi.

Joining the conversation

Slater returned to the command centre they had set up, equipped with extra screens for comms and tracking, to find Cummins, Ward-Hennicke, and Brandon staring at the screen showing the Universal broadcast. It was displaying a close-up of a very menacing, dark craft, its guns and nose pointing directly at the shuttle from Resolution with its umbilical cord link to the ISS dock. As he watched the camera swivelled sideways to reveal another, identical shuttle apparently waiting its turn and then swung further towards the ring shape of the Resolution, far larger than the shuttles and the black vessel, but silvery rather than black and without that sense of aggressive purpose. Through its ring could be seen a part of the smaller ring of the Intrepid, also glittering silver. The star reporter sounded very nearly hysterical with excitement as the shot returned to the armed super-shuttle.

"Doesn't that look threatening to you? I wouldn't want to meet that on a dark night. If you have just joined us, those last shots showed you just how crazily crowded things are getting up here. We think the other ring ship is the Intrepid and the second shuttle probably belongs to it but we have no idea about its crew or what it's doing here."

Cummins turned to her. "Safely tucked away?"

"Yes – and audio is on there. They seem harmless enough, just somewhat shattered by their experiences."

Ward-Hennicke was configuring something on the control panel of another screen. "Could you check what I've done here?" he asked Slater. "You know these systems. I'm not so bothered about the video transmission, though it would be nice, but clear audio is necessary."

She joined him and started checking the settings and the positioning of a camera.

A comms screen opposite came to life and General Connors' face appeared; in the background the voice of the star reporter could be heard, half a phrase ahead of their own receiver.

"Unprecedented confrontation in space.....ation in space".

Colonel Brandon quickly moved to another screen, adjusted something and Commissioner Leonhardt appeared, looking sideways at something or someone else. Brandon spoke quietly to the screen and the Commissioner turned his head for a moment to say, "I'm monitoring. Go ahead."

Cummins moved to the screen linked to Connors. "General, I'm glad to be able to speak to you directly. As you may know, we have both crews, of the Intrepid and of Resolution, safely aboard. They appear to be in good health, suffering from no more than stress and exhaustion."

General Connors snorted. "Good. Thank you. I'd be grateful if you would arrange to have them transferred immediately to the fast shuttle we have standing by. They are urgently required for debriefing."

" is turning out to be more than a simple rescue.....simple rescue," came the reporter's voice, with echo.

Cummins gave a half smile. "I'm sorry, General, but all members of your crews have asked for political asylum, which as senior official in residence on the ISS I have granted pending ratification by UNRA."

"First of all, Cummins, members of armed forces do not have the same rights as private citizens. Indeed applying for asylum makes them guilty of desertion under our military law, so in fact you are harbouring criminals as well as deliberately interfering with our normal military activities."

"That is something that UNRA and if necessary the International Court may have to decide, but I am sure you know that precedents on this kind of thing are mixed historically - and it is a first in space exploration."

Cummins urbane tone was hardening, though still carefully courteous. As he stopped, the reporter could be heard, ratcheting up her voice to new heights of excitement. "live coverage of the confrontation between Northern's General Connors and the ISS." "...the ISS," echoed their receiver.

"You are acting beyond your authority. I have the means to enforce my perfectly legal control over these serving officers. Please arrange for my armed shuttle to dock at once so that they can be taken on board and returned to our jurisdiction."

"...isdiction," echoed the screen showing the Universal broadcast, displaying a slightly pixellated outline of the General's face.

"I am afraid I have to refuse that request, General. I hope it did not contain a threat against the

ISS, an institution you are sworn to protect and which I know you help to support financially."

The General had turned away from the screen and spoken to someone behind him. When he turned back his face was pale and his lips were slightly parted, as if he was panting. "You cannot broadcast a private conversation without my permission. What are you thinking of? You and the UN will pay dearly for this outrageous breach of privacy laws."

"I apologise, General. We were merely helping Universal to provide complete coverage of this incident as we and they felt it was in the public interest. Your conversation with me happened to be taking place at the time. May I assume by the way that the presence of the armed shuttle has in fact nothing to do with exerting pressure on us to comply with your demands?"

"I would not of course use armed force against any UN organisation but I would warn you that your superiors will be furious at the damage you are doing to relations between Northern and the UN. We are their most important ally and support. I demand that you release these officers."

"General, in the light of what you are saying, if you would be so good as to wait for a moment, I would like to bring in somebody else to this discussion or, as it seems to be turning out, video conferencing. It'll only take a moment."

"That's not going to change my legitimate demand for the release of those officers."

Cummins turned his back on the general and raised his hand to Slater and Brandon. The Universal broadcast faded from behind the general but on the ISS screen the reporter was saying, "...our chief political editor, has called this an unprecedented stand-off between Northern and the UN, which could have the gravest consequences."

Brandon spoke to the small screen opposite him. "Sir, Administrator Cummins is asking if you are ready to join the discussion between us and Northern. We will reroute your link to one of the conferencing screens; you will see the general on screen to your right and the administrator to your left. Is that OK?"

"I am looking forward to it." said the Commissioner.

Cummins walked back to the conferencing area. "Commissioner, thank you for joining us. General, you know Commissioner Leonhardt, I think. He has agreed to represent the UN in this matter."

The general looked taken aback and then swiftly angry. "I can see that this whole matter has been carefully stage-managed and set up," he said acidly. "However I will not be manipulated. Commissioner, if you lend your support to this outrage I shall have no option but to withdraw our funding commitment. I repeat my demand that these serving officers be released to me immediately."

"...are hearing the conversation between Northern's General Connors and the ISS ..." said the reporter in the background from the ISS small screen. Judging by his expression the general

could hear it too, as he winced.

"General, I have to say that Administrator Cummins has no choice here; he has to grant these people asylum while their claim is investigated and assessed. You will have every opportunity to make your case in front of the relevant tribunal in due course." Leonhardt's tone was polite but he sounded somewhat tactlessly pleased with life.

"Commissioner, let me make myself clear. These officers possess vital knowledge and technology that belongs to us. If they fall into the hands of other organisations this will almost certainly result in them illegally obtaining this technology. I have only the administrator's word that members of the two crews have applied for asylum. I look on his illicit use of asylum law and your support for him as intellectual piracy, a thinly disguised attempt to steal data clearly belonging to us."

Cummins turned towards the camera and at the same time raised one hand to attract Slater's attention. "We can satisfy you on one point - we have a recording of the recent request for asylum and our response. Could you play that Slater? Of course we will be able to provide documentation if required."

At high volume the voice of Allans was heard saying "'Do we have refugee status? We are requesting asylum.'"

The general could faintly be heard asking someone else to check voice records, turning away. The Universal reporter was saying "So now I think we have a clearer idea of the stand-off between Northern and the ISS. Let's go to our political correspondent, Justin Daley. Justin, what is at stake here?"

"Well, Simone, it's complicated legally but it's Northern who have more prestige to lose here I think."

"One thing we haven't heard mentioned, Justin, is Northern's fear of remote recruitment. Does that play a part?"

"Possibly. Nobody knows what that involves but the mystery remains - why are these Northern officers asking for asylum?"

The expert was cut off as the general was again on screen. "That voice belongs to Allans, senior officer on the Resolution. He may perhaps reasonably claim to be speaking for the crew of the Resolution but he has no authority to speak for those on the Intrepid. Northern will only finally accept that any officer has applied for asylum when such a request is freely expressed by them as individuals."

Cummins hesitated and Commissioner Leonhardt took up the baton. "Northern's concern for the individual human rights of their officers is quite understandable and indeed admirable. The United Nations hearing will ensure that each officer is given the opportunity to express their

wishes in this matter with whatever degree of privacy they request as soon as is practicable and I guarantee to inform Northern immediately. In the mean time the legal requirement is always that de facto asylum must be provided if a group or individual has claimed their well-being or lives are endangered."

"So the United Nations is authorising this refusal to return our officers to us."

"I have already said that Chief Administrator Cummins has no choice but to grant the asylum request, pending a hearing. It is pointless to protest at this time."

"Very well, Commissioner. You understand the consequences of deliberately acting against Northern interests. I do not need to warn you further."

"I'm sorry you are taking things in that way but there is nothing more I can do. I suggest you withdraw your ships at this time."

Cummins stepped forward. "I must add my request to that suggestion, general. There is a dangerous amount of hardware in the area and I am concerned about the safety of the station."

"We are just trying to recover what is ours. Perhaps you could make the same request of the Universal module, which has no business here, and immediately stop relaying our conversation to them in breach of privacy regulations."

"I've already asked them to keep a safe distance. As I assume this conference is finished we will cut off the public link. May I take it that you will withdraw your ships, manned and unmanned."

The general turned aside to speak to someone before replying. "Very well. You understand the consequences of my giving that order," he said. "It means you have chosen to reject the support of Northern."

His face vanished from the screen as the link was cut.

Joining forces

As Caz recovered a little in the comparative safety and comfort of the ISS, the relief she had felt at their escape began to be replaced by a growing sense of the closeness of the threat from

Northern. Their temporary refugee status seemed weak protection. Command would be determined to get to them both to make an example of them and to analyse the threat they posed, at any cost and by any means. She was sure the others would have similar fears; they were all more or less prone and for some time no-one had spoken, but she doubted if any of them were actually asleep. Aleks, half opening one eye and discovering her surveying her surroundings, winked, but it looked rather forced and didn't cheer her up.

A buzzer sounded at the entrance to the chamber and a small viewing plate lit up next to it.

"Hello crews of the Resolution and Intrepid. My name is Amarjit Rai, biologist and medical officer here. If you're up to it, I have some visitors for you. They will explain who they are. If you're not ready for this kind of thing we can come back later."

There was a general shifting of bodies and some gentle moaning as they each struggled towards full awareness and looked around at each other. There was a pause and then Mallinson said, "We have to let them in."

Caz was startled. He sounded odd, she thought, driven, unusually forceful about bringing them in and he used to be the least sociable of them all. Everyone looked at him, but he didn't explain further, just gazed fixedly in the direction of the door. Nikola and Allans exchanged shrugs and after a silent querying of the others Allans said.

"Of course. Please come in."

The door gave an electronic clink and slid open. Amarjit Rai ushered the four 'prion refugees' into the chamber in front of her. '

"These four have something in common with all of you; they are refugees from Northern. I'll let Jim Carey here introduce himself and the others, explain the background and why they want to talk to you. You should find it an interesting story."

Jim started explaining their background and adventures. When he came to his stay in military hospital and the frenetic activity around the officer in the next bed Aleks looked at Allans.

"From the first probe, maybe?" Allans nodded.

Jim described his sudden awareness that he was cured and the sense of renewal that went with it; there was an immediate response from the crews; even Bjorn and Caz recognised the similarities from the often repeated accounts of the others.

In the excited discussion that followed Nicola probably put their feelings most clearly. "I can't see how your cure and our change could be connected, scientifically, rationally, but it sounds such a similar experience."

Jim then explained how the group came into being and the way the cure seemed to work. When he came to the attack on the deep shelter, there was surprise, even shock.

"I can't believe Northern would risk having their own forces involved in something like that." said Nikola.

"They must have used one of the many mercenary outfits." said Konrad. "Though I suppose there's no big difference between mercenaries and Northern regular officers – they both do what they're paid and told to do."

"Mercenaries can change their minds," said Aleksi. "They still have minds to change."

When Jim came to the missile and its sudden veering off course, he left out Josh and any attempt at explanation but just finished with their successful docking at the station and a brief mention of Josh as the latest survivor.

There was a long silence. Then Allans said, "That's an extraordinary story - and you escaped a missile! I don't know what connection there can be – between your cure and our release from conditioning - not that we understand much about that anyway - but Nikola is right, there are striking psychological similarities - and Northern obviously believe there is a link since they're desperate to get hold of you and investigate it."

"If you don't mind my saying, some of your story takes a lot of believing." said Nikola.

"If that strains your powers of belief, try the next part," said Amarjit Rai. "Josh's experiences will certainly be hard to swallow. I have been working with him to investigate an aspect of the change that seems peculiar to him. He will explain."

Josh cleared his throat. "In most ways I am just another miracle survivor. I woke up one morning feeling desperately ill and the same morning was told I was dying of one of the prion based degenerative diseases. I just escaped having my brain removed and implanted in an augmented management environment by being more or less abducted and brought to the deep shelter just in time to make a miracle recovery - I hadn't had time to come to terms with all that when we were forced to run and take refuge here. In the shuttle on the way I was overwhelmed with something like an epileptic seizure and a sense of terrifying threat. It brought me to my knees, I tried to fend off the threat, physically, then there was a vast feeling of relief. They told us up here that a missile had mysteriously lost its target lock on us and turned away at the last moment. Amarjit has discovered that my fairly standard comms implants have been massively upgraded in power, though it's not clear how they are controlled. Certainly I am not in conscious control. Since then there have been two more events that seem to be related. I have no idea why I am the only one with these extra abilities. I am completely unaware of them until they start operating."

"One thing is clear," said Amarjit Rai. "This ability has saved the whole group at least once."

"Doesn't that sound like your experience, Mallinson?" asked Allans.

"Yes it does, that physically and emotionally overwhelming sense of impending threat," said Mallinson. "but I don't believe I or it saved anyone. Northern weren't going to blow us up in full

view of Universal's audience and the ISS."

"Do you, like Josh, have comms implants?" asked Amarjit.

"I have interface implants, mainly diagnostic, but also allowing some remote control and relaying, designed to integrate with ship systems."

"If you agree, it would be very interesting to compare the present state of your implants and their neural connectivity with Josh's here." said Amarjit. "But another time for all that. I think I should give you all the chance to get acquainted and compare notes. To be honest I'm hoping you may come up with some useful ideas about what's going on here. I'll leave you to it."

The science officer gave them what was rather a nervous smile, Caz thought, before leaving. There was an awkward pause as the two groups looked at each other, then Mallinson got up, walked across to Josh and shook his hand. To Caz's considerable surprise he took over the introductions, which he managed in a very friendly manner quite unlike his usual rather frigid shyness. Nobody seemed to need much encouragement about getting together anyway; the 'recruited' members of the two crews and the Earth refugees greeted each other like fellow members of a persecuted sect. Soon everyone except Caz and Bjorn was animatedly comparing notes. They found themselves in a separate group of two after a while.

"There does seem to be a rapport between them, doesn't there?" said Bjorn. "I don't see how it can be the same mechanism, though - prion disease cures here on earth and whatever remote recruitment is."

"I don't suppose we're going to contribute much, being the only ones unaffected. I feel a bit left out," said Caz, mock ruefully she hoped.

"Maybe, but we're the exceptions and exceptions are important in any theory, aren't they. If we could work out what makes the two of us immune, if that's the right word, I'm sure it would bring us closer to understanding the whole business. Let's join the re-born and put in our two cents' worth."

As they joined the circle, Josh was again describing his experience of the warnings.

"As I said it was what I imagine an epileptic seizure must feel like - pain, loss of control, both physical and mental, disorientation, near collapse but accompanied by that intense sense of imminent catastrophic impact."

"That's a good analogy and it makes sense medically." said Mallinson. "There must be an electrical cascade or surge. That's certainly how it felt. The huge relief is partly just the escape from the effects of ."

""Yes," said Josh, "but not only. There's also that overpowering awareness of the threat averted, personal and group survival. "

"Exactly, both acting together. I've never felt such an intense sense of relief." said Mallinson.

"Doesn't fit with our healing theory really, that capability though," said Nikola. "It's sort of weaponised, isn't it, rather than therapeutic, though it has been defensive so far."

"Yes," said Allans, "but that's the only thing that doesn't fit; otherwise it's a promising theory."

"Therapeutic?" asked Josh.

They explained about Aleksí's accident and the extraordinary powers of the anomalous surface.

"How does the repair function explain what happened to the rest of you? Wasn't Aleksí the only one who who was injured?" asked Jim. "What happened to the rest of you could be seen as a means of incapacitating you by turning you against Northern; certainly Northern Command sees it that way."

"We have a theory that the changes to our nervous systems carried out for deep conditioning were interpreted as damage or disease by whatever the process is and it restored us to a pure expression of our genetic design." said Nikola.

"And that would explain why Caz and I have not been affected." said Bjorn excitedly. "No deep conditioning – the rock saw us as normal."

"Just as well two normal ones are left to provide some balance against the self-sacrificing, pacifist, flowers in your hair approach to reality of the miraculously reborn." said Caz.

Jim and Josh looked taken aback at this sign of apparently bitter division until they heard the slightly weary but good-natured laughter from the other members of the two crews.

"Come on! We're not that bad," said Konrad. "We've even lied convincingly to everyone - we're downright devious when we try."

"You didn't fool anyone for very long," said Bjorn. "And owned up to it as soon as you could, like good Scouts."

"Do you feel your abilities could be used offensively, as a weapon?" said Mallinson to Josh, ignoring them.

"No," said Josh. "It's all about survival, not just personal but group survival. It's about sensing a threat to the group and instinctively trying to avert it"

"Thank you," said Mallinson. "I agree entirely about the sense of threat to the group. I haven't experienced averting it but I just can't see it as a weapon."

"I think we are onto something really important here," said Jim. "I've thought all along that Northern have got it all wrong – military paranoia sees weapons and enemies everywhere."

"I can't see much prospect of converting Northern to the belief that we are the harmless products of advanced alien medicine," said Bjorn

“But we do need to get this theory more widely known, analysed and discussed – even eventually by Northern.” said Jim. “There is quite a team up here, including Colonel Brandon and Mr. Ward-Hennicke, not to mention the present scientific and admin staff of the ISS. They will at least listen to us.”

“Brandon!” said Allans. “Even General Connors might show him some respect.”

The door buzzer sounded and Amarjit Rai was let in.

“I though the priority was to bring the two groups of you together, even though we hadn’t finished arranging accommodation or even proper food,” she said. “I hope you agree.”

There were general signs and sounds of assent and then Allans, Jim, Mallinson and Nikola all tried to speak at once, asking for a meeting with Brandon and Ward-Hennicke. Amarjit waved them into silence.

“Don’t worry. Most of us are very anxious to listen to all of you and get any information or explanation we can from you. I am glad to see you feel the same and that the two groups have meshed so quickly. I think the seven new arrivals need a few hours’ R&R but we will use the time to organise a meeting. Let me lead you to your rather cramped sleeping quarters first.”

Kill or cure?

Colonel Brandon was meeting General Connors in the neutral and congenial surroundings of the International Services Sports Club of Havana. After Northern lost the UN trkbunal hearing and the crew were granted asylum, the General had given a furious press conference in which he spoke of an outrageous insult to the integrity of Northern and of arrogant bureaucratic interference in Northern's fight to protect themselves and the world against a mysterious and possibly alien threat. Despite this, the Commissioner knew perfectly well that the general's position within Northern was precarious and had let him know, through unofficial channels, that he was interested in sharing information on the Remote Recruitment phenomenon and on the planetoid and its strange technology, assuring him it would be to the advantage of Northern. The General, who required answers both to safeguard his position in Northern and for his own satisfaction, had eventually agreed to talk to Brandon as somebody who was at least from the same military tradition and by reputation hard-headed. Brandon was waiting for him in the poolside bar. He arrived on foot, alone and on time. Good signs, though Brandon. They took their drinks to an isolated table under the palm trees.

The general didn't waste time. "Brandon, the first thing I want your view on is the condition of the crew members. Do they show signs of outside agency interference or control?"

"Not control as far as we can tell. Interference is more difficult. A major problem is that we don't know their original state in any detail. What can you tell me of the difference in training between

the LACC officers and the rest?"

"Why do you need to know that?"

"Because the two LACC officers claim to be unaffected and the others support them. I have their own necessarily subjective and very limited accounts of their training but yours would obviously be authoritative."

The general hesitated, made a face as if in pain and then seemed to decide to speak freely. "We had begun to fear that our so-called 'deep training' was somehow connected to the whole phenomenon of remote recruitment, most likely by a subtle form of sabotage during the procedure, carried out by a mole of a rival organisation, a sub-routine secretly embedded during processing and then somehow activated while in space. To counter this we created the new role of LACC officer, with special responsibilities for neutralising the effects of remote recruitment, trained for missions by conventional methods, quite separately from the rest of the crew, and we built a fairly sophisticated disabling device into the others by linking their implants to their central nervous system. This could be triggered only by the LACC officer if they had evidence the crew were compromised."

Brandon looked disapproving. "What did deep training consist of and why did you consider it necessary?"

"I don't understand all the biology but it involved breaking down some of the memory and personality through chemical and electrical means and then stimulating their rapid recovery during aggressive training procedures. It also meant forcing the growth of links between specific behaviour patterns, both routine and decision making, and the pain and pleasure centres. The effectiveness of these links was amplified by microsurgery as well as by biochemistry, including the use of engineered enzymes."

"Were these changes reversible?"

"Noone has tried, but I doubt it."

"Well, I'll come back to that, but why did you resort to these extremely invasive measures?"

"I'm not prepared to listen to any high-minded moral disapproval, but I will explain, though I would have thought it was obvious. In the past our rivals have successfully used various means to turn our officers: simple bribery, blackmail, drugs and indoctrination, intimidation and so on. It's much cheaper than sending their own exploratory expeditions. Trained astronauts and their research findings are about the most valuable assets we have. Then the possibility of an unbelievable prize, of entirely new technology, even possibly alien, was the greatest inducement possible, so we took extreme measures, especially as we had to assume they would be targeted while in deep space, effectively cut off from our control and influence."

"Thank you, General. Have you heard about the extra-vehicular accident one of the crew

suffered?"

"No details. I have to compliment you on your security."

"In some ways I wish it had leaked; it might have saved time." Brandon outlined the story of the disastrous tangling of the tethers and Aleksí's extraordinary survival and recovery.

"Do you believe this?"

"It's supported by all the crew, except Aleksí, who doesn't remember."

"They admit they've been altered by some alien process. Couldn't they be inventing this to convince us the technology is benign?"

"As far as we can tell, and by their own account, the two LACC officers are unaffected. They tell the same story as the others."

"Hmm! Hard to believe any of this."

"I agree, though I don't see any attractive alternative explanations – but what do you know of the prion survivors? I have reason for taking things in this order. "

"Only Jim Carey's history. He was a civilian security expert attached to our headquarters. We believe he was accidentally affected by the recruitment process while being treated in our isolation hospital for advanced prion disease. He's been running from us ever since."

Brandon prevented himself blurting out 'You can't blame him' and said instead "We have four of these survivors of prion diseases on the ISS. All of them show, er – I think 'rejuvenated' is the closest I can get – central nervous systems, which must, presumably, have suffered severe damage. With one exception, we can find no other changes. They appear fully in control of their actions and have been extremely helpful and cooperative. However they all speak of a sense of renewal and change and of a different and more.. 'balanced' I suppose is the term.. perspective. There are we think twenty or thirty more scattered about the globe. They have not caused any problem or drawn attention to themselves in any way so far, unsurprising in the circumstances." Brandon allowed a hint of an edge into this.

The General put down his drink and looked straight at him."Of course not. Would you, if you were an alien agent controlling a human host?"

"Point taken, but I'm asking you to consider an alternative explanation."

"You're trying to get me to accept that this is a therapeutic process, a kind of healing, but the precautionary principle makes that a reckless assumption. And how does that theory fit in with the recruitment of our crews in deep space? We have to assume they are being targeted."

"Well the process is mysterious and apparently complex but I am suggesting that it returns the subject to its original design potential, in the process undoing your deep training and restoring the nervous system to its original genetic design state. The subject experiences a sudden

complete release from control leading to a massive change of attitudes and emotion."

"How could it do such a thing?"

"I don't know, but it seems it does."

"How is it remotely possible that the same process is operating here on earth and in deep space?"

"Again I don't know, but let's look at the vectors we know. The first prion survivor was present in an isolation unit where two officers apparently already compromised or infected by the process were being treated. The subsequent prion survivors were, according to Carey, all in direct contact with him or another survivor. Were any members of the crews of the ships involved in contact with officers already affected?"

The General grunted.

"It's possible I suppose. When the crew of the first Intrepid returned, there was a short period when they were being debriefed in HQ, before we realised the kind of threat we were dealing with. It's probable they met with fellow officers undergoing training. Within 36 hours they were all transferred to a shielded medical facility, once we realised that they had been compromised."

"The civilian survivors report that the "cure" only occurs when somebody already cured is present so there is a direct line back to the first subject, Jim Carey, meaning there must be some form of physical transfer; we don't know of what exactly. Perhaps some form of engineered virus, perhaps that favourite of science fiction, nano scale machines, perhaps a combination."

"That would scarcely explain how they're recruited in deep space, would it?"

"The only explanation for that would be that at least one officer had been in physical contact with a vector and was carrying the physical part of the process before they left. That's why I was asking about the possibility of contact between those affected and their replacements."

"But again, why the delay? We're talking long periods, many weeks in space, before they were recruited. And what about the picking up of apparently coherent signals coinciding with recruitment events?"

"A trigger signal?"

"That's our theory too, either to mask the method of attack or delay discovery of it until the subjects are beyond our reach – or both."

"If you think of it as a weapon, yes, it could be designed to work like that, but it's a clumsy weapon that requires person to person physical contact and then a further signal to trigger the damage."

"I will agree that it's a weirdly complex mechanism – if that's how it operates."

"Even more baffling is the other condition for the prion cure: it only occurring deep

underground. If it's a physical transfer it should work anywhere, but it doesn't according to Carey and the others and if it did, you would expect the cure to be spread more and more widely, like a communicable disease."

The general's face appeared to soften for a moment but it quickly resumed its normal severe set. "Isn't a more likely explanation that a biological weapon designed to break our conditioning and undermine the allegiance of our officers has turned out by accident to be a cure for the prion diseases of the nervous system?"

Brandon allowed himself to show a little of the intellectual scorn he felt for this theory. "Such a weapon and cure is way beyond human abilities at present; according to Jim Carey's account it means the complete regrowing of the damaged parts of the system in days rather than months. The magically accelerated biological science necessary suggests there must be new physics involved. If any of your rivals had such a powerful scientific lead they wouldn't need to use it to subvert your training; they would just take over."

"I understand what you are suggesting but I think *you* will understand my reluctance to accept it. Granted we had been entertaining the possibility, however remote, of finding alien technology embedded in a planetesimal more or less in interstellar space, but alien tech already active here on Earth and curing human disease, that's too much."

"But what I am suggesting is that it was your officers who brought it here from the object; that they were the physical carriers or vectors. It may be far fetched as a theory but what else fits the facts? I just want you to entertain the possibility, to step back for a moment from the psychological or biological weapon belief."

"Let's say that I am prepared to consider it! What do you want me to do about it?"

"Just point out to the Northern Board that nobody knows for certain what's going on, but that if the alien therapeutic mechanism does turn out to be close to the truth it may open up very different opportunities, perhaps for a less disease ridden and desperate world."

"I am not satisfied by any of the explanations, but I have to agree that the weapon hypothesis looks increasingly unlikely. My brief is to assess threat and to protect against it; cures, even of the incurable, are not my concern, but I will pass the gist of this conversation on to the board and leave it up to them."

"Could we have a moratorium on the legal battle over the refugees and their technology?"

"I can only report back to the Board but I won't pursue it in the mean time. Best I can do. Extraordinary times!"

"Thank you, General. I think that's all we can say – extraordinary times, needing new ways of thinking and extraordinary decisions."

Profit and loss

Looking out of the window occupying the whole external wall of the sixty-seventh floor conference room, right hand resting flat against the glass, executive director Banks spoke without looking round at the little group sitting at the near end of the forty seat table.

"Could we successfully argue that we should have sole control of access on the grounds that we took on the costs and risks of exploration, discovery and development?"

"Sole control of access would suggest exclusive ownership of the planetesimal, I think. That would be contrary to the spirit and letter of the Space Exploration Accord," said the nearest individual, a sharp-suited, silver-haired man with one arm resting on the table.

The director turned round. "Well, we can't patent the thing if we can't describe how it works or even say exactly what it does, so how are we going to exploit it? We are talking here about something that may revolutionise medicine and possibly destroy the pharmaceutical market and industry. We don't know its full potential or its limitations but its ability to fully and rapidly repair a ravaged human nervous system is enough to make it clear that we must have at least a major share in its development and reach."

There was a pause. None of the three sitting down looked at each other or at the director. Finally the only woman among them, a plump, elderly figure in a flowery dress, looked up and said very quietly. "If we can't control first contact, we have to look at the other two related vectors, signal activation and person to person transmission."

The remaining member, a baggy-suited, wispy-haired man in his forties, snorted. "May I ask how we are going to do that? We don't know how activation works, how the signal is produced or received; as for transmission it appears to be spontaneous, doesn't need our help unfortunately."

"Signal activation apparently needs special conditions: heavy shielding to maintain isolation from other radiation. We could provide that; we have some suitable installations already. As for transmission between individuals we could organise, facilitate and secure. We have the resources and the management capabilities to provide what is needed before anyone else. We could offer the UN our services at a reasonable price."

"That sounds a sensible approach if we don't have the scientific knowledge to control the process itself – which I take it we don't, Eric." The director turned towards baggy-suit.

"It would help if we had anything to investigate, " said the latter. "We have no access to the subjects who have been affected, either the prion sufferers or our own 'recruited' and no access or path to the source in the Oort cloud at the moment. We'll have to wait for the UN expedition. Will we have anyone on that?"

"Yes, we will and it could well be you, officially and openly." Banks said, holding him with his eyes for a moment. " Unofficially there should be others, among the patients."

"We haven't picked up the original signal for long enough to analyse it usefully, despite all our efforts. Neutrino beams are notoriously difficult to detect and we suspect that this one has been temporally encrypted."

"I'm sorry, 'temporally encrypted', what does that mean?" asked the sharp-suited lawyer.

"We suspect that the information has been cut into fragments that are transmitted at different times; we don't know the scale of the temporal displacement – or of course how it is decrypted when received, if it is. Of course, if we had better understanding of all this, we might be able to control or even replicate the signal and with it the whole process."

"All we'd need is the ability to block it and unblock it at will," said flowery-dress Marjorie, who was Northern's chief development strategist. "That would give us total control."

The lawyer opened his eyes somewhat. "We couldn't be seen to be blocking a UN global health programme, either legally or morally."

"Obviously we wouldn't want or be able to interfere with the UN sponsored space missions, but here on Earth we need some way of getting exclusive rights to provide suitably shielded transmission facilities; otherwise they would spring up all over. We could say for example that unauthorised facilities would interfere with the activation signal. Ideally we should have the ability to detect and block the signal in other people's facilities. Would that be possible?"

The director gave Marjorie a quietly gratified look and raised his eyebrows at Eric, his director of research, whose pained expression grew more pronounced.

"We might be able to create targeted interference transmitted from the surface or through the ground, though that scarcely seems necessary when normal ambient radiation is all that is required to prevent activation and it would in any case ultimately be traceable to us and very clumsy to implement at random deep sites around the world. Another way might be through infiltration of treatment centres by agents equipped with low power personal devices, a tactic which is more easily deniable even if the agents are caught, as there are existing organisations which could reasonably be blamed. We wouldn't need to do more than create uncertainty about the site in question to make our own sites preferred by the both the public and the United Nations."

"That's well worth thinking about," said Banks.

"I don't suppose I need to point out the dangers inherent in such a tactic," said the lawyer.

"Deniability is not sufficient protection against damage to our public image."

"Point taken, Nigel. A last resort perhaps. Marjorie's strategy may be enough without it."

Director Banks stood up. "Thank you everyone. I am sure we all see what needs doing and what our responsibilities are. Eric, a word before you go."

The other two gathered their papers and walked down the length of the table to the door without

looking at Eric Moran, who stayed seated, looking at his hands. Director Banks moved round the corner of the table and stood over him.

"I don't need to tell you, Eric, that what we are after here is depth of understanding. If we can get a handle on this new technology, we can use our dominant position to take over all its applications with dazzling prospects. That's why Marjorie's solution isn't going to satisfy us; it's just a stopgap. We need you to attack this with everything you've got."

"Martin, this is not just new technology; it's a whole new science. Our examination of the 'recruited' gave us very little; our alterations to their nervous systems had been undone or rather the affected parts had been regrown. There were some slightly unusual viral fauna but nothing remotely capable of making the kind of changes we observed. Our theory is that whatever moved in moved out as soon as the job was done, leaving only the faintest traces behind, though the human body has many hiding places and we don't know where to look. We are nowhere near understanding the signal or how it is received. We have no access to whatever is inside that lump of rock. It's not promising."

"I understand the difficulties. I am hoping that, with or without UN support, you may get access to the planetesimal and its interior. Just don't give up on me."

"I and my staff are as eager as anyone to understand all this, believe me; I just want to be realistic about our prospects."

Interference

Josh was kept waiting some time at the entrance to the facility – security appeared strict – but once his identity was confirmed he was whisked through efficiently, treated with embarrassing deference in fact. Mallinson was waiting for him at the bottom of the shaft and clasped his shoulders in a sort of awkward embrace as he emerged from the lift. Josh felt that now familiar instinctive sense of attachment, as if to a close family member, though he couldn't say he ever felt entirely comfortable with him.

"What have we got – the usual?" he asked.

"Yup – signal's not getting through since some time early yesterday. I have got an idea where it might be despite the numbers but it takes too long to triangulate on my own."

"It looks huge, this one. How many?"

"Over 2000 patients, but the process has stalled of course and most of the most recent arrivals are close to dying. There are only 15 seeds."

Josh looked around the mainly empty, lobby-like space with its row of lift doors and curved, blue-tinted concrete walls. There were two archways leading off it. "Where do we start?"

"The problem is the layout here; there are 7 large communal areas each serving a honeycomb of

small rooms or cells. If as is likely the agent is a seed, real or pretended, they will certainly be mobile, moving between cells. If they are one of the patients lying in a cell then that should make things easier but my strong impression is they're moving. Anyway, you know how fragile our sense of the interfering signal is – all those little cells complicate things, to say the least. Have you accessed the layout sketch I sent? ”

“Yup – looks weird.”

“If you start from the first communal area and just move as directly as possible in the direction you're sensing, I'll come from the furthest one. We need to keep pace of course and stop before revealing ourselves. It should take about 30 minutes.”

Any interfering signal created an awareness in Josh of nearby threat, like a barely heard but disturbing buzz. There was a sense of direction like that for sounds except that it didn't become more obvious as you got nearer – only the sense of threat increased until it swamped everything and direction was lost.

“OK, lead on.” said Josh. Mallinson led him through one of the arches along a short corridor and into a very large communal area.

“ Got it yet?” asked Mallinson.

“Yes, definitely.” He pointed. “In that quarter?”

“Yes, that's what I feel. I've put in my start location at the far end and yours here - making a decent angle - usual procedure.”

Mallinson's signal came through ten minutes later. Josh had taken the opportunity to sit down at a table to calibrate his tracker and have a brief rest. Now he was walking at a controlled pace down one side of a dining chamber towards the larger doorway at the far end. He drew some curious glances from the cured or partly cured who were eating or chatting in small groups. He passed door after door of the single cells, many of which were open and occupied by patients in side by side narrow, wooden-frame beds. Nobody in them seemed conscious..

At the doorway he knew he had to turn left or right, both directions taking him away from the heading he wanted but his tracker was intelligent enough to construct a best fit line of approach, making allowances for obstacles. It also showed him Mallinson's estimated position - not his actual one as they were limiting radio to the one start signal to avoid alerting the agent. He chose right, feeling immediately uneasy, followed a blank concrete corridor for about 20 paces and then turned left into a cell that the sketch showed interconnected with another with a door onto a wide communal area which he should be able to cross at an angle leading towards the source.

The first cell was occupied by two patients. All he could see of one was short, pink-tinted hair and a very pale cheek. The other was just a mass of dishevelled dark hair spread out on the

pillow. They both had fluid lines in and were either unconscious or asleep. As he crossed the room a volunteer orderly, wearing a face mask and protective gloves, came in the opposite door. He looked at Josh in astonishment.

“What are you doing here? These people are suffering from advanced prion based infections and are contagious,” he said through his mask.

“Just passing through!” said Josh and slipped past him into the adjoining cell. Scarcely taking in the two patients in the beds between him and the far door he walked quickly through to the next communal area, a long narrow space with a series of benches around the walls. Its purpose was unclear to him. It was empty.

He paused for a moment, to confirm his feel of the direction, check Mallinson.'s probable progress and see what his tracker was making of the signal bearing. It showed a broad coloured band roughly following his movement, still far too wide for accurate triangulation. Mallinson should be about half way and according to the tracker prediction was ahead of him; he himself was running a bit slow. It was very difficult keeping to a line through the honeycomb of cells; he once had to double back and frequently sopped to check his progress but as the estimated meeting time with Mallinson drew closer the tracker began to show a more clearly defined direction. He had a confused, disturbing impression of the series of cells and inert patients he had passed.

He hurried down the length of another quite crowded meeting room; it seemed to run very close to the heading he wanted but the only door was off to the right and led to yet another series of interconnected cells. As he reached the door the sense of threat strengthened but direction became confused and then lost. He just knew it was near.

He had to continue on the same heading. He pushed through the door at the end and rushed into the first cell; it was unoccupied with no fewer than three doors off it; he shoved open the middle one and strode through the tiny single bed room, scarcely registering the grey-haired patient there, then shouldered open the opposite door. This cell had two patients, he saw, but before he had taken in the layout and available doors, one of them opened and a middle-aged man in a dark suit with a clipboard and a name badge came silently and swiftly in. He stopped in his tracks.

“What are you doing here?” he said. “I understand only medical personnel are permitted near the patients.”

“I might ask you the same question,” said Josh. “I am investigating the signal interference that is endangering the lives of all these patients.”

“And I, as you can see from my badge, am a UN health inspector tasked with checking that the conditions and medical staffing in this facility are up to standard.”

At this moment Mallinson came rushing in through the door behind the inspector, stopped abruptly, pointed at him and nodded significantly at Josh. The inspector whirled round to face

Mallinson.

“We believe you may be the source of the interfering radiation ,” said Josh behind him. “I want you to go with us directly to the surface.”

“That's absurd. I am here by authority of W.H.O. and by arrangement with the management of this facility. Who are you anyway?”

“We have been asked to investigate the current critical failure here. We can discuss authority topside. We must insist you go with us immediately to the nearest exit.” said Mallinson tersely. “Let's go.”

For a moment Josh thought the inspector was going to refuse but in the end he shrugged and appeared to give in.

“I hope you realise the kind of trouble you will be in for using force to interfere with a UN officer carrying out his duties,” he said.

They escorted him, Mallinson in front and Josh behind, to the nearest lifts. A few minutes later they were in the shielded room in the facility entrance building. The facility administrator had been waiting for them and joined them as they came in.

“We need to examine you for sources of radiation. This would involve a series of scans, including x-ray, but would be entirely non-invasive,” he announced quietly.

“Obviously you need my permission for that,” said the inspector, “but I have no intention of wasting my time in such matters. I demand that you release me so that I may return to HQ. Believe me I will lodge a strongly worded complaint with W.H.O.”

“We have no authority to hold you against your will. I can only appeal to you on behalf of all the patients whose lives are at risk here. If you are not, wittingly or unwittingly, the source of the interfering radiation you have nothing to fear from us; we will discover that and apologise and search again.”

The inspector looked at the administrator, looked around at Josh and Mallinson . “This is an outrage,” he said in suitably outraged tones. “You have accused me, a WHO inspector, of sabotaging this recovery facility without a shred of evidence. I am leaving. Open the door at once.”

“The door is open. Transport is available.” said the administrator. “I'll escort you out.”

Josh and Mallinson watched them walk out.

“How sure are you?” asked Josh when they had gone.

“Must have been him,” said Mallinson. “Only problem would be if it's not implanted and he's dumped it somewhere, but I think he's switched it off. I can't sense it.”

“Nor me.” said Josh. “It disappeared when we caught up with him. It's a shame we couldn't examine him – I'd really like to know what they're using.”

“I suspect they've started growing wet implants – bio-technology – almost impossible to detect but at least they can't be dumped into patients or staff.”

“Whymare Northern doing this?” asked Josh. “I mean I assume it's Northern – it's attempted mass murder. What if it's traced to them.”

“They cover their tracks pretty well – and they're desperate to discredit these facilities because they want everyone in their own facilities. Also so far noone who's been cured will work for them, so they don't really care if they're cured or not.”

“I'm getting greater control. Once close enough and the sense of the threat is intense enough I think I could just shut down the interfering signal, but that would most certainly have warned him off. Wouldn't have helped.”

“Could come very in useful though in the future. I'm nowhere near that. How does it work?”

Josh started to explain how it felt to Mallinson as they walked into the lift.

Hospital ship

Caz was half watching the wall graphic that showed the UN space vessel Harvey swivelling painfully slowly into reverse to begin deceleration. Even on the display it looked massive – it was the largest ship ever built after all, with a crew of 6, a medical staff of 8 and sixty passengers, patients really, with a vast range of non-nervous system related diseases, especially the antibiotic resistant ones. The hope was that the planetoid could identify and remove the causes and analyse and reverse the damage, just as it had with the Prion diseases. Many of the patients were in a medically induced coma, their vital signs reduced to a minimum by the use of drugs and low temperature; two had already died. Few of them were strong enough for hiber sleep rotation.

She knew that everyone in the two crews had been asked, even begged, to volunteer but only she and Aleksy had agreed. Most of the rest decided, like Mallinson, it was safer and more useful work monitoring treatment centres and doing their bit as seeds for the nerve disease cures too. Bjorn, her fellow LACD officer,

Caz was talking to Angus Ward-Hennicke, the expedition's research director, over a meal the name of which they had given up trying to decide on. She was enjoying questioning him aggressively, feeling she'd had to put up with enough at the hands of the planetoid and its

recruited crew members.

"OK, let's agree they were space-faring, advanced, but I don't understand why such a civilisation should set up a medical facility in a totally remote spot. How does that make sense?"

"Well we don't know if it's where it was supposed to be or whether it could move; maybe it still can. Anyway let's imagine they were a swarm civilisation, only acting intelligently and effectively in very large numbers. One of the weaknesses of that kind of organisation is its vulnerability to disease. The advantages of the planetoid are clear to see; selected infected individuals could go there, be analysed, the cure would be developed in them and since the swarm would almost always be suffering from one disease, that would be enough as the cure would be quickly passed on to the rest. A space-faring race of that type, liable to catastrophic outbreaks while far from home, might well need remote health stations like this, scattered about at intervals, maybe even on call. That's one possible theory but it's impossible to work it out backwards knowing so little."

"In that case why the need for the signal to trigger the cure remotely? That seems absurdly complicated and difficult." Caz asked.

"Again, we don't know - but one guess is that it serves as a remote security system."

"How could that work? It doesn't make sense. There can't be signals exchange between a patient on Earth, say, and the Oort Cloud – much too slow."

"No, obviously not. The theory is that when the therapeutic system is correctly set up in a host body, ready to go to work, it forms an array which acts as both a receiver and a matching code for the incoming signal."

"Ingenious – but why bother? It's therapeutic after all. What is there to worry about?"

"Well, since the signal can only be received if the whole mechanism has been passed on and set up successfully with the built-in array and code, it helps prevent accidental activation in unsuitable forms of life or malicious, hostile activation. The code sent would be a key of the original diagnostic match between DNA and repair and has to be exactly paired in the host array."

Think of the mayhem such a system could cause if stolen and used as a weapon; for example a human body forced to rebuild according to alien DNA instructions. The security system should make that very difficult. There must anyway be a diagnostic phase which compares organic design, DNA in our case, to the actual present state of the body. If recognisable damage or distortion is detected, the therapeutic phase sets itself up and waits for the signal to validate it. This makes me think by the way that however it originated, the device may have been designed to be used by widely different species in very varied and distant places, though I suspect they were space rather than planet based, considering the difficulties we had on Earth."

"Even in deep space signalling with neutrino streams is pretty impossible; they're extremely

difficult to detect at all."

"Perfectly true, though it gets a little easier in very remote areas pretty far from all radiation sources, like the Oort Cloud. Somebody suggested the idea – too vague to be called a theory – that whatever it is forms a subatomic array between the donor and the recipient, affecting not only the organisms involved in the transfer but any matter in between and this acts as the receptor for the signal. It's all speculation - we don't *know* anything. We still have no idea what's inside the rather large volume of that rock and precious little chance of finding out without damaging it or provoking countermeasures of who knows what kind."

"And do we know what range of diseases and defects the artefact is able to cure?"

"We certainly don't *know*. So far it has been able to repair almost any gross damage to our nervous system but doesn't always eliminate the agents of the damage, so it can recur as in reinfection or self-inflicted stuff, substance abuse obviously. We have no idea what other diseases and afflictions it might be effective in. If it is reading the genetic code and reconstructing from that it might manage almost everything except hereditary diseases and extensive genetic damage, as in severe radiation sickness. Of course for all we know it might stop completely at any time – the signals might cease or the whole thing might shut down. This is a try it and see experiment, wildly optimistic on everyone's part, ours and the volunteers'."

"So here we are, at vast expense and no little personal risk, engaged in a never tried before undertaking with no guarantee whatsoever of any success."

"Don't you think it's worth the attempt? Otherwise, why are you here?"

"Oh I suppose. As you point out, I volunteered. I just like to hear you say that you don't know anything – and I get tired of the idea that the recruited are sort of superheroes."

Aleksi had come into the mess room and now fastened himself down at the table.

"Is she giving you a hard time? Good, maybe she'll lay off me for a while," he said smiling. "My super powers are wilting under the onslaught."

"Actually I suppose if any of you have super powers it's David Mallinson, with his psychic warnings and weird signal direction awareness," said Caz.

"Even creepier are Josh Reynolds' abilities, not just warnings of electronic attack but high-powered remote manipulation of hardened electronic circuits. Still gives me the shivers." Warde-Hennicke gave a dramatic shiver to underline his point.

"Tell me," said Aleksi, "how are we proposing to run this circus when we actually actually get there? Our passengers are scarcely going to suit up and propel themselves through space to the surface, are they?"

"There'll be plenty of work for trained shuttle pilots with experience of handling delicate cargo

with the manipulators. I hear, Caz, that you have some relevant expertise, at least at retrieval of similar cargo." Ward-Hennicke grinned at her and then at Aleksi.

"I don't know about that," said Aleksi. "I was in a very poor state by the time they got me back."

"I don't know about that," said Aleksi. "I was in a very poor state by the time they got me back."

"You were the one who decided to fly into a space rock and crack your helmet open," said Caz tartly.

"In fact your accident provided the most compelling evidence that the device in the rock is therapeutic," said Angus. "Without it we probably wouldn't be here and thousands of Prion victims would be dead."

"I'm sure you and Brandon would have worked it out," said Aleksi.

"And you lot already had," said Angus "But General Connors would never have listened and Northern would have remained convinced it was a weapon. None of this would have been possible. The two crews and the prion survivors would have been lucky to survive. The world has a lot to thank you for, Aleksi.

"Don't thank him !" exclaimed Caz. "He didn't do anything. It was Bjorn who crossed the tethers."

"Actually it was Northern's cheapskate equipment that was responsible," said Aleksi thoughtfully. "Cutting corners to whizz us out there to get its mitts on the 'weapon'. A little twist of fate."

Mysterious Workings

If there had been anyone watching the paradoxical smooth surface area of the rocky planetesimal, of such interest to those on the Harvey and many other others on Earth, they would have seen mysterious workings from time to time. Below the surface, or that's the way it would have appeared to human eyes, a series of 3D forms would rapidly coalesce, dissolve and re-shape themselves. It wasn't clear from the way they assembled, dissipated and re-assembled if they were solid objects or detailed 3D images, and the nature of the space in which they came into being was equally uncertain..

They were highly complex, suggesting organic development, but almost all alien and strange; a very few might have been familiar to a human neurosurgeon, though they would have been startled by the sight of them in this context, to say the least. One formation, for example, might have been a thin cross-section of human amygdala, but swirling as it did momentarily among the many others it would have been hard to be sure.

Of course if an observer had actually been physically near enough to watch, or a ship near

enough to observe remotely, the area would have remained an almost flat, grey, opaque surface without features of interest.



