

This is only a short introduction to the book, *Earning the Spurs*.
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Earning the Spurs

By Cliff Dale

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For Caroline, more lonely nights and quiet days.

*To Phil, thanks for the artwork, it is much appreciated.
This started life as one of our conversations and look where it went!*

*and like every good boy should, last but not least, thanks Mum
out there somewhere on planet dementia, floating in her private world,
bearing the whispers of the Darkness in the Deep,
and sadly, being drawn deeper.*

CGD

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Chapter One

WunTun

It was another day just like any other, it was cold, it was dark, zero air and almost no gravity, and he was out on the surface in his Environmental Protection Suit just waiting for the tell-tale vibrations that indicated an Ice Spur was forming somewhere close.

Out here, you needed to be alert, you dare not switch off, seriously, a simple lapse in concentration could cost your life, Krypton spur mining was that hazardous. In fact, almost everyone he had travelled with was either dead or injured, only a smart few had quit and gone to find lower-paid employment elsewhere rather than tempt fate on the moon, and there were just four stayers of the original fifty-seven who first set foot on the Moon of Yatton with him, Yatton was Getone's largest satellite.

That first footfall was nearly four Terran Standard years ago, it seemed a lifetime away, and he had come to realise that he had grown a lot in confidence, he was a touch more circumspect, perhaps, more cynical, and generally bolder, though not necessarily braver, he knew that he didn't need to toughen up, he was already as hard as nails.

Was he wiser?

Probably not, if he was, then it would have been easier to pick up his earnings already made and leave on the shuttle that had departed just yesterday, simply bugged out to find a better life elsewhere.

The problem was, he still liked this life, yes, it was solitary, but it was simple and uncomplicated, he liked that, the only thing to worry about was himself, looking after number one, getting on with the job at hand, and he was good at it. He coped with the solitude, sometimes, even revelled in it, the work was enjoyable because it was hard, and perhaps because it was occasionally dangerous, but he liked the challenge, if it was too easy, he would most likely quit.

However, life was about to get complicated, perhaps, just more interesting, challenging in a different way than what he had become accustomed to, in a few days he was about to meet a new partner in his little mining venture, and hopefully, they could get on.

He had never met this person, not even spoken to them, just a series of text mails to finalise the agreement and transfer the appropriate funds. The new part of his job was to train this novice in the art of Krypton Ice Spur mining, for it was an art, and once he had allowed them to earn their own spurs, settled into this lifestyle, then he could contemplate the sale of his claim in a Terran Standard years' time.

Would he retire and settle down?

He wasn't sure he could, there had been no cohabitation with anyone for longer than a few hours in more years than he cared to remember, he wasn't sure if anyone would put up with him and his habits, not that he thought he had any bad ones, but that was, perhaps, a matter of opinion. This new moment in his life could teach him something too, he could learn to become less cynical, more tolerant of other people's opinions, and even their habits, good or bad, he needed to get back to what was considered a normal life, here, on the moon of Yatton, it certainly wasn't.

Right now, there was a need to concentrate, there were more shimmers in the moon soil, spinning around, and not more than two meters away, his helmet lights picked up the dust starting to lift slightly, and grabbing the remote controller for his Gear-Sled, he reversed it another five meters, this was going to be close. In his other hand was the trusty spur pick, and as he knelt on the sled and put a gloved hand on the surface, sensing the movement of the tubers rapidly climbing upward, his body was tingling with anticipation, right now, he was hyped, hypersensitive to the forming of a new ice spur. It was close and getting closer, he was starting to feel the vibrations through the sole of the boots of his EPS, the moon dust now being lifted by the pulsations of the semi-frozen Krypton being forced to the surface by the power of the local Sol. There was pure physics at work here, blasting pressurised vapour through the sponge-like holes on the far side of this moon, ejecting the Krypton through surface ventricles on the other side, this was a regular occurrence.

It was also a simple process, the sun warmed the surface of the moon on one side, the surface ice melted and created vapour, it didn't rise but pushed its way into the myriad of small tube-like formations that were embedded in the surface, and these tubes burrowed their way through to the other side of the moon, the one that was currently in darkness. This vapour created its own suction, pulling the warming gasses down into the tubes, travelling through Yatton's complex internal pipework structures, increasing in speed, adding pressure, softening the Krypton within, and pushing it toward the darker and now colder side of the moon. As it reached the surface, it was forced out, still cold, a semi-frozen liquid gas, this was often violently ejected into the deep cold once more, there, it formed spurs of re-frozen Krypton. Often, they were smooth extruded tubers, twisting together, wrapping around each other and forming stable spurs, frequently in threes and fours, sometimes more, and they stood tall, froze quickly, and were then ready to harvest. Occasionally, these tubers would form with lightning speed, blasters, these could be sharp, rough and

jagged, the motion created tubers that literally pierced the air, and then, they hung there like a popsicle just waiting for the sun to come around and re-melt them, or in this case, someone to crack it, that was what he was here for, the harvesting of the solid Krypton ice.

There were perhaps a few issues with that last statement, for a start there was no air, this was the vacuum of space, and if you got in the way of an ejected spur as it froze, then you were as likely to get as pierced as Space was. If you were unlucky enough to get pierced, spiked as the miners referred to it, then it was sometimes possible to survive it, but not for long. The spur often froze, sealing the wound and the suit, and, depending on where you were spiked, you could survive a small spiking, but as soon as the spur melted, you would usually lose all the air in the suit before you bled to death. There had been miraculous stories of spur miners turning off the environmental controls of the suit to stop spur melt, and if they were near a Habitat Pod or survival shelter, they may stave off suffocation, and, if you had help and could get out of your suit fast enough, a difficult job in itself, then you may actually be able to stem any blood loss, but it didn't automatically mean you would survive, it just gave you a better statistical chance.

Krypton spur mining was not for the faint-hearted, nor the stupid, if you had no brains out here you didn't last long, the boneyard on Getone was full of those that failed.

Getone, pronounced geh-tohne, was a class M planet and it had been terra-formed for many years now, its given astral location was ST867764, it was habitable, albeit in strengthened Domes, and it had a breathable atmosphere only inside of those Domes.

Currently, there were five-Domes on its surface, Cidenum, Enlac, Enreloc, Sherstown and Wilton, these were all connected by kilometres of underground tunnels, which meant travel above ground was not necessary. It was a stable planet, well managed, and unlike many of the places in this segmentum of the cosmos, at peace, which helped it become a successful commercial centre in this sector of Space. On its surface, there were several large commercial Spaceports where trading took place, of course, this was all under the watchful eye of the Administrators of the Imperium of Man, they had no real issues though, the population were not disloyal to the Emperor, but where a profit was made, then, there was a fee to be paid, and they collected plenty.

These Spaceports were a safe haven for all commercial shipping due to the powerful military presence on the planet, the ports were well used, well respected for their honesty, due, no doubt, to the presence of the Administrators and their well-trained guard dogs.

What prompted this military intervention on this inconsequential planet?

One word, Krypton.

Krypton, one of the noble gasses, was discovered in quantity quite by accident on the now mined-out moon of Keynell. Its military applications warranted this protection. On Getone there is a garrison of some nine hundred fanatical Imperial Troopers, better known as the Astra Militarium, not a vast number, but collectively, they were

the largest fighting force in the galaxy, feared and respected way beyond it. On the planet, they were unobtrusive, secretive, essentially hidden from sight in their underground base on Getone, however, the base was well known locally, and on the nearer planets, they knew that this force was there, so, they were not a secret by any means. What all had no doubts about was that this force was ready, well prepared, and very heavily equipped, they were not to be ignored nor tested. There was no physical military presence on the Moon of Yatton itself, chiefly because there was very little in the way of a stable surface to build much more than small shelters, personal EES (Emergency Egress Shelter), or small storage facilities, the only other structures man had made were a few flat surfaces for landing zones, and these were well monitored. There were planetary defences though, and it was the combination of an all-seeing eye, and a large collection of rocket-powered big sticks, that ensured the Getone forces were more than capable of repelling a sizeable aerial and ground assault should the need arise. So far, it seemed the threat of the releasing of these troops or their weapons was a sufficient deterrent to any raiders, no one had dared to test the resolve of the defenders, yet.

The smallest of Getone's two moons was now a harsh and lifeless place since the major commercial ventures had ceased, on Keynell, there were still the die-hards on the surface picking out what meagre scraps were left, these were the independents, the one-man bands, or the family units, and some of them would die hard, usually the inexperienced or the careless, often it was the greedy, but you could make a reasonable living if you were smart enough and exercised enough caution. These days, Keynell was proper bandit country, the plots were now deregulated and there were no licenced enterprises, no protected spur fields, it was get up early and get the prime spots, or arrive last and take what was left, sometimes, taking what you wanted if you thought you were hard enough. That was a recipe for disaster though, it saw several who thought they were tough enough, discover, that whilst they were mean, they were not smart, and often, they would get tagged. To be spiked was a natural phenomenon, to get tagged was not, that was purely a manmade occurrence, if you got tagged then that simply meant you somehow managed to get your suit punctured by something mechanical, often accidentally, but if it was tagged in a claim dispute, that often meant the other guy stuck his ice-pick in it! Bullies often got tagged because they were slow, and they were too stupid, often, that was what made them bullies in the first place, speed is good in any fight, and strength is nothing without the knowledge to direct it.

Production had now shifted to Yatton, the moon was larger, and the Krypton was just as abundant as on Keynell in its early days and equally as hazardous to mine, here, patience was a virtue, you needed to exercise a lot of it when you first started. This business took a lot of learning, mistakes were common, occasionally deadly, but mostly they were inconvenient and costly, simply put, you didn't make as much profit for the effort you had expended.

He was lucky, he had adequate funding before starting, had sufficient funds to set up properly, and was smart enough to know that he could not do this work without research and some training, going back to school so to speak. He took the time to

learn about the local geology, its biology, the chemistry of the product he wanted to mine, and the physics of what was going on under the surface. He also took the time to grasp the fundamentals of the mechanics involved, and the mechanical equipment needed to do it, not only to make it work but to work it so there was a good profit to be made. When he was confident that he had enough knowledge to do the job justice, and keep himself safe, then, and only then, did he purchase his plot licence and book his place on a shuttle. Even so, he had taken the time to study the maps of available plots, using this newly acquired knowledge to survey the geology, work out the chemistry that was going on, discover the physics involved, carefully choosing a location to base his venture, thereby, maximising his investment. He was determined to use this knowledge to his advantage in every aspect of this new venture, to make the best use of his time and efforts, sensibly paying extra for a quality secure Habitat Pod and additional storage facilities, and for added safety, he also purchased four E E S's, Emergency Egress Shelters, and placed one in each quadrant of his claim, hoping he would never need to use them for their intended purpose, survival in an emergency.

The failure stories were researched as well, which was as important too, many of those that fell short were the people being too ambitious, often plain greedy, those spreading themselves too thin and working themselves too hard, the result was they made simple basic errors, most of which cost them Coin, sometimes it cost them their lives, or if they were lucky, just an arm or a leg. He had considered, for a brief moment, two plots, one on each side of the moon, but realised that he did need to take time to process the Krypton at some point, knowing he should use the time in the light for this purpose, specifically, when there was little to harvest, or, he had completed his processing and cleaning already, it made sense to use this time to recover his strength. The stories of those that failed were littered with tales of over-ambition, high risk, and short downtime, he was determined not to be another story of failure, it was the biggest reason for the long research time and the work on how to recognise when he was wrong, so far, it had played out well.

There was no doubt he was a wealthy man already, the set routine he had was paying dividends, and now, he was about to interrupt that smooth flow and expand his venture by introducing a partner, who, hopefully, would eventually learn enough, and earn enough, to buy out his share of the plot.

The why he had decided to do this was not so clear, it was true he was getting older, this mining lark took its toll on your body, though his body was pretty exceptional in the first place, and the solitude, well, he was sure it was affecting his sanity, he didn't remember talking out loud to himself as often as he did now. He had done well for himself, now there was a desire to pass on this knowledge, this experience, it was something he felt was a good thing to do, the right thing to do, his experience was better shared, the knowledge only useful if it was passed on, to help someone else make a decent life for themselves was something noble, fulfilling, he liked that idea. Noble was perhaps not really him, though he had always been principled, it was something he had purposely set out to do all his reasonably short life so far, he had seen too much selfishness and didn't care for it, or for those that practised it, on

Yatton, that seemed to be most of the miners. Most he had encountered were too self-absorbed to even be approachable, he found that puzzling, especially for the one-man bands like he was, even on Getone, it could be a lonely place to remain on your own. There were other distractions of course, but you would have thought that a bit of company would not go amiss, to have a friendly face to miss you if you got into trouble on the Moon above, but no, they chose to remain solitary. You would have thought that it would be good to perhaps find someone with whom to share your knowledge or techniques, to help improve their efficiency, maybe to enhance profitability, or just to offer the benefit of your experience to help or advise if necessary, but no, it seemed that most he had met wanted to remain aloof, secretive, even belligerent, it was bewildering. There was the chance that you may actually benefit from someone else's experience, improve your efficiency and profitability, but it seemed that most were too ignorant to believe that they were not doing the right thing for themselves, that was their loss.

Still, there was this vibration to contend with, he needed to concentrate or suffer the consequences.

The dust was now bouncing some ten centimetres from the surface, the ice spur was close to forming, raising the shield on his Gear-Sled, he waited behind it, it was not going to be long now. Peering cautiously over the top of the shield, he remembered a moment of being caught out once before, nearly losing his head as a tuber shot out and tilted in his direction, luckily, it simply battered him out of the way rather than spiked him. Those experiences were the ones you needed to learn from, they were the once-in-a-lifetime escapes, the obvious warnings that you were not paying enough attention to all that was going on around you. If you failed to take notice, or just ignored the warning signs, then you would not survive long, and with no one to miss you, it was likely to be the CSA, the Commercial Sales Agent, the person that you normally sold your harvest to, they would be the one to raise the alarm, and then only because you failed to turn up at the Spaceport to sell your harvest. For most, that alarm would not be raised for perhaps seven Getone days, twenty-eight Terran Standard, usually, all that would be found was your vacuumed carcass. What happened next was covered by standard mining planet protocol, your harvest would be sold at base minimum, all the required taxes paid, and any remainder used to bury you and pay off any debts on the surface of Getone. The Land Management Agents Office (LMAO) was the only happy soul in this scenario, they got to resell your plot if no one entitled claimed it in fourteen Getone days, fifty-six Standard, they didn't try too hard to find anyone.

He was nine meters from the first formation, now he needed to wait, only fools rushed in now, the second spur rose at seven meters to his left, yet he could still feel there was more, this was a big one. To the right, the dust was now bouncing some twenty centimetres from the surface, several small dust jets had been ejected and he tensed slightly, waiting for the inevitable. There was little sound on the surface, no atmosphere meant there was little gas of any great consequence to vibrate the sound waves through, so you watched the soil, imagining the noises in your head as a spur rose and twisted in front of you.

This one was a monster indeed, had there been soundwaves it would have roared, he counted seven ejected tubes, they spun and twisted, some wrapped around each other and formed a single weird spiral that wilted as it climbed, he instinctively ducked as it headed his way. The slowly falling twist clipped the leading edge of the Gear-Sled shield, it gave it a firm nudge that had him knocked gently off-balance to park his butt on the moon soil. He was thankful it didn't break or shatter as it tumbled, it would mean extra work in the cleaning and storing of the harvested product, it also meant a potential spiking, a suit puncture, neither of which were good things. He waited another minute, the vibrations had ceased, he checked the pressure of his suit, it was good, and he moved to the side of the sled where the twisted spur had now come to rest, hanging just a few centimetres from contact with the soil.

Clearing a bit of surface debris and sinking his gloved hand some ten centimetres below the soil, it was still, very still, there were no vibrations at all. Moving to the front of the sled, he slammed the pick carefully into the soil, put a gloved fingertip on the very end of the shaft and took a deep breath, held it, and counted to twenty in his head, or was it out loud, it made no difference, there was nothing, he deemed it was safe to harvest.

Lowering the shield on the sled, he picked out a dozen of the Jumbo storage crates, dragged them to near the base of the furthest tuber, sliding the Jumbo against the spur before popping the tops open. He was being careful not to clout the crates against the spurs for they could easily break before everything was in place, and every time he told himself that a dirty harvest was time-consuming and less profitable.

Once again, he found he was talking to himself out loud.

At this point, he would often stop, smile to himself, and continue to affirm that this solitary life was not driving him to a comfortable padded cell somewhere, that it was just a good way of ensuring that he concentrated on what was important, that this one-sided conversation was just himself reminding the self how to do the job efficiently and safely. Perhaps, it was the onset of madness, but he decided that if he knew what he was doing, knew why he was saying these things to himself, then, surely, it could not possibly be folly, it was sensible advice after all, how could that be mad? The only voice in his head was his own, it wasn't like in the Warp where distant voices were trying to invade your conscious spaces, trying to get in your head to persuade you to do things you knew were wrong, his voice was one of reason, not of dissent, that cannot be a bad thing, but then again, madness was not inherently bad, just odd, or was it?

He decided that this train of thought had to stop, there was a need to concentrate on the job at hand, to continue meant ending up as another statistic on some bean counters spreadsheet, he didn't fancy not being missed until it was too late. The three formed spurs deserved respect and taking his time, he placed his lighting poles to get the maximum coverage, more light meant better safety, he told himself, safety was always good.

Against some of the Jumbos, he placed the smaller Compacts, these were essentially the same width as the Jumbo, just half the height, you used these to catch some of

the overspill from a cracking, and hopefully, minimised the spoiled Krypton, Pure was better, a greater value.

He was smart in his choice of lighting, solar meant no cables to trip over, easy to set up, quick to pack up and move on, but they had limitations. His research told him that several rotations were going to be in almost total darkness, because, although 'his' side of the moon would be Sol side, the moon itself would be hidden from the sun by the planet of Getone. All you would get was just a few hours of weak light to recharge a solar battery which would not last you long on the surface, which meant even more downtime, lost profit, the solution was an RTG. Even with the RTG, the lights took time to recharge, it just meant you didn't need to be in the sunlight to do it, now, that light cycle was still several days away.

A Radioisotope Thermoelectric Generator used the radioactive decay of Plutonium 238 which naturally generated heat, this heat the generator turned into power, you used that power to run the cabled lighting, which was the permanently fixed lighting around the Compound and shelter, and you also used it to recharge solar light poles when the natural light was absent.

If you took too long setting up your equipment then you risked the spur melting back into the moon soil again, or more likely, breaking off on its own, then you ended up with a dirty harvest, more clean-up time, less profit, time was Coin. There was a fine balance to be had in everything you did on the surface of the moon, the sun and shade thing was going on, that was beyond your control, on the dark cycle you could add light when you wanted to work, and in the bright cycle, in the sun, there was no harvesting to be done, there were no spurs, but you could process the previously harvested material and continue working.

Then there was the safety/danger thing going on, the dangers were usually obvious, ice spurs rose from the ground at speed, they were often large and frequently sharp, then you purposely broke them, more sharp bits, and the safety thing was common sense really, stay away from the sharp bits, your space suit won't function with holes in it and neither do you.

Experience and safety were a natural progression, the more experience you gained, the safer you could make your day, but you still needed to concentrate, a lapse could be terminal. There was perhaps a finer balance between working and downtime, work in the dark phase was determined by where the Krypton ice spurs arose, that you could not control but you could hazard a guess, and with experience, you got better at it, and if you prepared in advance, before arriving at the surface, then you could make better-calculated guesses and harvesting time was shortened, it simply took less time to do, that meant you could harvest more in a day.

This was precisely where you needed the balance, the time between work and rest. A moon day could be long, the work was hard, and before you knew it, fatigue had crept up on you and you were making basic mistakes, simple errors of judgement, some of these had the potential for really disastrous consequences, even fatal ones if the winds of fate were against you. You had to know when to cut and run, literally, if you cracked a spur and didn't make that all-important step forward, then a spur could come crashing down about your ears, as your ears were safely enclosed in a

helmet, and that head protection being the cap of a pressurised suit, all of which protected you from the vacuum of space, it was never going to be a good thing to experience a lapse in safe judgement.

A Yatton working day varied depending on where the moon was in relation to the local Sol and the planet of Getone, Yatton revolved on its axis at a fixed rate of seven days Terran Standard, and it orbited Getone in twenty-eight days TS, but there were times where one side of the moon would be facing the direction of the sun but all was still dark. Then, Yatton was completely hidden behind the planet, all faces of the moon were in darkness and the temptation was to harvest as much as possible, to make a greater profit. What tended to happen, and statistics would prove this to be true, people would overwork and under-rest, they concentrated on profit, not on safety, this was not a sustainable course of action, accidents happened, concentration slipped, people fell, fatalities occurred, plots were resold.

From the far side of the first spur, he turned his back, spread his feet, and gave the base of the left tuber a good crack with the spur pick, he sensed it fall. You heard nothing, and with your back to it you saw nothing either, but you developed a sixth sense about these moments, and he took a large space-hop forward, a sensible safety-related action.

The spur was three-meters-tall and a meter wide at its base, and as the spur crumbled, most of it fell into the opened crates, a few bits would bounce off the edge and fall harmlessly to the surface, and a few missed the Jumbos and Compact crates completely, these fell on the far side into the moon dust. The open Jumbo crates were carefully inspected, no damage to the rims meant a good seal would still be maintained, and before securing the lids, he carefully picked out several pieces from the Compacts that had little in them, using them to top up the bigger crates that were almost full. The pieces that had hit the dusty surface were scooped up with a sieve, and needing to remove as much debris as possible, given a quick flick with a stiff brush also grabbed from the utility belt around his waist. All these pieces were put into a separate storage box, this one was coloured red, the good stuff was in the green crates, green was always good and the preferred product.

The full crates were now closed and sealed, he had pressed the large blue panel on the top of the Jumbo crate and the rim now glowed with a pulsing red light, he left those crates where they were, these were now secured and cycling the frozen gas collected into the cubed compartments within. It was a simple process, inside the unit, the temperature was raised just enough so that the Krypton ice semi-melted, it then poured itself into the moulds, and as they filled, they self-sealed, re-froze and the next cubed layer filled and sealed. If you were lucky, you would get three of the four layers completed and could put the container back on the Gear-Sled, this process would take around fifteen minutes. In the meantime, you would get more Jumbos, drag the still partially filled ones to the next ice spur formation, and do it all again. For the units on the fringes, those perhaps only partially full, you would empty the contents of a Compact crate into it, hoping to fill it with Pure, which, of course, gave you more empty Compacts to set out and preserve more of the Pure elsewhere.

Looking at the formation before him, this one was reasonably straight, a slight lean forward, and he placed his containers accordingly, gave the second formation another good whack with the pick and sensed it crumble, taking the customary one good pace forward to avoid any falling or bouncing debris, either of which risked a spiking. On turning around, he was pleased to see eight very full crates, several very full Compacts, and only a few pieces ejected to the surface that needed a scoop and a rough clean before placing them in the Contaminated crate. He was forced to juggle a few pieces in two Jumbos just so he could get the lids closed, and once the locks were in place and the red lights had turned to green, these containers could be moved to the sled too. The third formation was the problem one, this meant a bit of a more complicated laying out of the crates, this spur had formed into six warped and twisted limbs and all were nearly half a meter thick, with its wilted spirals it was around six meters in length and not at all straightforward, this made it an interesting puzzle to solve. He knew the twists meant that the pieces would fall in different directions, and some bits would probably shatter, he would need to use all his experience to place the units appropriately to maximise profit.

From the outside, his actions looked comical, it was as if he were dancing, there was a flowing movement of his arms and a gyration from the hips, here and there would be the odd dip of a knee that seemed to have a rhythm to it, and it continued for around a minute, further adding to the appearance that he was perhaps dancing to some unheard melody. In truth, he was working out where the cracked parts of the spurs were going to fall, the twists and dips the falling Krypton were likely to take before coming to rest in the open storage containers, this determined where the units needed to be placed to maximise the Pure and to minimise the spoiled. He liked this dance, if he got it right, then it made him proper Coin, which meant a greater profit for his time spent, it would ensure there were more credits to transfer to the Currency Depository and add to his PFDS.

Clean Krypton, Pure, was far more valuable than Contaminated, forty percent to be precise, so a few extra minutes to work out the best placing was a worthwhile investment of his time. In total, he placed thirty-nine Jumbo crates and sixteen Compact, several would not be anywhere near full, but with a further few minutes spent shifting frozen pieces of ice spur, he would have a greater income per unit. Of course, each crate cost Coin to ship, so the more in it, the better the profit ratio, and if more of it was clean rather than dirty, well, that was a proper bonus.

Now the question he had to ask himself was, where to clout this twisted monster of a spur, and more importantly, how hard?

Whilst he was pondering, he had the sense of another spur forming, though it wasn't close, he strode five long paces away from the twisted tree of Krypton, slammed the pick into the moon soil and once more placed a finger gingerly on the tip of the spur pick. A twenty count later suggested that this spur was still some way off, maybe ten minutes or so, and it seemed to be another hundred meters to his left, this was right on the boundary line of his claim and his neighbours, a potential source of conflict. He couldn't see any lights though, his neighbour was nowhere close by, but that did not mean he would not show up if he too sensed the rising tubers, still, a conflict was

not inevitable, he had a rep, and that rep was perhaps a little embellished, but it had served him well several times in the past.

He was known as WunTun, which was his given handle, his nickname, this was made in one of the less seedy establishments on Getone, in the Dome known as Wilton.

He once took part in a game of strength, it was a pointless contest really, the miners liked to earn bragging rights, and although it was intended to big up the self, it did little more than pass the time, and surprisingly, it was one of those moments when the belligerent became more tolerant. The object was to strike the floor disk with a digital ice spur pick, the machine registered the impact and displayed it as a score for all to see, he scored one tonne, hence the name, it was the illiteracy of others that created the spelling.

As a side story, he did win the competition that day, the prize was one of the bar's women for the night, and much to the amusement of the usual clientele, he took the girl out of the bar for a meal and some culture before returning to sample her skills as a masseuse, he wanted nothing else. The girl was forever thankful, apparently, it was the first night she had not had to 'work' in several Getone weeks. That was not good, some of these miners were rough on the girls, they didn't deserve that, most of them were big too, and often smelly, the miners, not the girls, and WunTun took pity on many of the women in the Wilton Lounge, and in all his years here, he had bought quite a few of them a night off.

No one had ever got close to his score and he became one of those legends of many a mining community, the rough nut, the hard man of the colony, the truth was far from it, he was strong, yes, but rough, not really, he thought of himself as polished, refined, and if pushed to it he could be forceful, but he was fair, he had never started any altercation he had been in, and there were many, but he had finished all of them as the victor. He would quietly point out that his opposition was often rough and inebriated, slow, and not quite in full control of their actions, by contrast, he was quick and sober, and he usually allowed them to beat themselves. His 'thing' was to dodge around them, make them tire themselves to the point of exhaustion, then he would simply use just three straight fingers and give them a short sharp poke in the chest, and they usually went down like a molten ice spur. It seemed as though he had taken them down with just the one blow, it was true, he touched them just the once, so technically he had done, but a jab to the solar plexus brought down many a man, an exhausted one was just that bit easier. That was where his reputation spawned, a combination of knowing the exact spot to hit the floor disk, and the ability to dodge his opponent until just the right moment, it was all a bit of a fraud really, but there were several times when it did have its advantages.

Time away from the moon of Yatton was a properly calculated affair, you needed to know the rotational calendar of the moon, working out when your plot was going to be in the light or the dark, it wasn't rocket science, everything moved at a fixed rate. A Getone day was four days at Terran Standard, a Getone week was seven rotations, so twenty-eight days TS, and Getone travelled around its sun in two hundred and ninety-six days TS, which was seventy-four rotations, it took some getting used to.

His home planet was many, many, light years away, and by comparison, it zipped around its sun, each rotation was a mere nineteen standard hours, and its solar year was only ninety-six standard days.

The moons of Getone were different, they travelled at far different speeds to the planet they circulated, and in the opposite direction, this took some getting used to, particularly in planning where and when to work. Yatton revolved around Getone in a Getone week, Keynell, the closest moon to the planet, was quicker still, fourteen days standard, half a Getone week, but few still worked there. Yatton rotated over the same time as Getone, it was seven days, so, in its orbit around Getone it would have four fixed time patterns, some of the time it was in the light and there was no Krypton, the rest, it was fully hidden from the sun for several standard days at a time, that was when you took time to pick off the easy to get at spurs, the ones nearest your Habitat Pod, less effort, faster collection, time was Coin. That time pattern had two distinct cycles, depending on the rotation of the moon and its orbit around the planet, it took a bit of working out.

If you were unlucky enough and found that the ice had melted, then there were often semi-frozen pools, and the odd larger lake of the stuff, it was easy pickings, but it would all be classed as Contaminated, a less pure and lower sales value harvest. When you got to the light cycle, that was when you checked your harvest and repacked your transport crates, then it was time you booked your flight to Getone to sell your product at the Spaceport in that light cycle, dark time was work time, most of the time.

Some people suggested that mining on Yatton was easy, there was as much time off as there was working, this was not true, the rotational cycle of the moon and its orbit around the planet meant that you could work on average around twenty days out of the twenty-eight over the two cycles, the reality was in the first cycle you worked twenty-four days in two periods, the second was two light cycles and one long dark period of fifteen days. It wasn't easy by any means though, people tended to forget you were working on the dark side of the moon all the time, which meant temperatures of at least minus one hundred and sixty degrees Celsius, in places, it dipped to two-thirty below, it was a harsh environment. The dark brought its hazards, aside from the obvious of no natural light, it meant shadows where you made light, which introduced trip hazards, and beyond where you placed your lights, nothing, just the dark. If you were at the fringes of your claim site then you might see the lights of your neighbour, but nine times out of ten they were miserable and ignorant, always concerned you were going to steal something. WunTun had no time for these people on the moon's surface, and even less on the planet, he generally kept himself to himself, got on with his work and collected his profits, and he was careful to pay his taxes.

That was another thing that irked him, many of these grumpy miners, when they did actually speak, did nothing but whine about their lifestyle, how hard a life it was, how difficult it was to collect the product, how little profit they made, and how much tax they had to pay, and the really dumb ones boasted about how much tax they didn't pay. That was one of those frequent 'bad stories' he had come across in his research

all those years ago, if you didn't pay your taxes, didn't keep good records, then don't expect to stay out of some penal colony in the back of beyond doing a long stretch of hard labour. Those that did survive that hardship, and it was one, came back to find their claim gone, assets sold, and Currency Depository emptied, it was a risk not worth taking. He always kept good records and duplicate copies, he always paid the required taxes, and when he conducted his business in the Spaceport, it was always in the open, always with accurate billing and receipts for everything, it was true that he didn't like paying his taxes either, but the alternative was not good news, particularly for the one-man bands, they tended to lose out the most.

That was another hassle, at the Spaceport, all the CSAs wanted a profit, the miners needed a good return, and there was often a verbal battle to get a good price, he had his good deal going and sold to one Agent only, WunTun brought him premium product and minimal Contaminated and it was a simple uncomplicated transaction with the minimum of stress, there was a mutual trust thing going on. Everyone knew the current prices, it was displayed all over the place in the Spaceport trading areas, all the miners knew they were not going to get top price, the price displayed was end-product price, EPP, and they were at the wrong end of that market. The traders were looking for a purchase price of sixty percent of EPP, they had expenses too, and a profit to make. On a good day, you could get seventy percent with a lot of haggling and low available volumes of the traded commodity, he and his trading partner had agreed on a fixed sixty-two-point five percent of the day trading price and no haggling, that worked for both of them. For the Contaminated, you generally sold it at sixty percent of the sixty percent, sometimes, you could push for sixty-five, maybe as much as seventy, but once more, he had a simple agreement, a flat sixty and they could both be happy, it worked, he sold all his product with minimal effort. Some miners tried cheating, in the odd crate of Pure they would slip in a cube or two of Contaminated, they rarely got away with it, but they still tried, arguments then arose over the fact that some dirty cubes in a layer of Pure did not render the whole crate Contaminated, they would not agree that it was the logical conclusion, now, because of one manky cube, the whole crate was soiled, and the Spaceport security teams were often kept busy. He had no issues, the mutual trust thing worked and he had neither made nor received complaints, and he paid his taxes on time, and at the time of the trade he got his ticket stamped, paid his dues, and put the rest into the holding account. He took a wage to spend in the Domes, spending most of his time in Wilton, he didn't care much for the others.

The first port of call in Wilton was the Supply stores, when you traded crates of harvest you got an empty one in return, his guy was good enough to ensure he always got clean containers with good seals. Then it was off to the EPS suit cleaners, you tended to live in these things for several days at a time and they didn't smell too good after a while, you would often have four suits to clean, four to collect, and maybe two spares in the Habitat Pod on the moon. The next stop was the Provisions store to pick up your foodstuffs, water, and other essentials, then it would be equipment supplies, maybe you ordered new lights, a new spur pick, and there was a whole load of other stuff if you needed it, from the smallest of brushes to the biggest of the

Gear-Sleds. The last port of call was the pleasure places, WunTun was always business first, pleasure was a luxury, a bonus, but others were happy to sample the joy first and deal with the business if they had any Coin left, he considered that a poor practice.

His favourite place was called the Wilton Lounge, there were a few gambling games, not strictly legal, but the owner paid his taxes and a bit extra, so he was allowed to get away with it, and he got a heads up if there was an inspection team on its way. These places had plenty of drinks available, and it was said that you could drown your sorrows and contemplate your navel in three hundred different flavours, all were designed to kill off your brain cells, pickle your liver and generally numb the soul. Of course, there were the girls too, the Fancies, lots of them, they were busy, and for some, they were a welcome distraction, he preferred to talk and get a massage, he wasn't wanting anything else. Sure, he liked women, and some of those from the far-flung planets were perhaps not to his taste, he preferred them with the same number of limbs and heads as he had, but they were still a good listener, and more arms often meant an interesting massage, he was quite open-minded, certainly not a specie-ist like some.

Getone was an odd place, essentially it was five-domed habitats, several Spaceports, and a military base for the planetary defence force. The Domes were more or less similar in size, technologies had improved only slightly between the building of Sherstown, the first Dome built, and Enlac, the last one completed, so there was little to choose between them. All five Domes were a mix of accommodations, commercial enterprises and storage facilities, most of them related to the mining of Krypton. There were other things here, they strip-mined the surface of Getone for other useful elements, there was a profusion of Titanium, and there was a reasonable amount of Aluminium, as well as pockets of the harder-to-find Rhodium and Adamantium, all of which were used throughout the known galaxies. There was Krypton discovered on the surface too, almost as a by-product of the mining of the other elements, it was only found in small quantities, and there were other trace metals like Gold and Strontium.

They built Sherstown to kickstart the mining process, and they knew they would need a second Dome, so it housed the construction teams too. Enreloc was constructed to take the overflow, to house more storage and better Spaceport facilities, and it did its job well. Before long, Getone was a commercially viable planet with resources to spare, so, more people arrived, more opportunists, larger commercial ventures, a third Dome was needed, Wilton became Dome Three.

Wilton was perhaps more orientated toward filling the need for entertainment, family life, for distraction from the norm, and that is when things got interesting on this out-of-the-way planet.

A group of bored pilots decided, that, just for the fun of it, they were going to investigate Keyneel, the closest moon, no one had bothered so far, so, as bored pilots do, they 'borrowed' a shuttle. They set out on a planned two-day jaunt to discover what this satellite had to offer, and, as it happened, some of those they worked with

simply tagged along for the ride to get a break from their norm, they all got more than they bargained for.

They carefully landed on the bright side and set out for a wander on the surface in a few buggies, careful not to stray too far from relative safety. What they discovered was the surface was very sponge-like in appearance, though not in texture, it was rock solid, the surface was punctuated by small holes all over the place, and on further investigation, they found bigger channels, some of which could be described as tunnels they were that big, and there were areas where there were none of these holes at all, geology-wise, it was a mess. At first glance, the geology didn't appear to offer much information, so they did silly unscientific things like tie rocks to Teflon line and drop them into these holes to find they went further than the five hundred meter reels of Teflon. For the hell of it, they tied in a second reel and discovered that even at one kilometre they had not hit the bottom, curious they tried some twenty of these holes, varying sizes, but with the same result, no bottom. At one of the smallest, they tied in a third and a fourth line, then a fifth and incredibly, a sixth, and still they had not reached the bottom, at three kilometres they had exhausted the available Teflon line reels on board the Shuttle. They vowed to come back to test the depth and bring twenty reels, they were sure that would be enough, but by the time they had finished plumbing the depths, this day was virtually done, and they had discovered little of any consequence.

A short sleep later they began day two as they explored the surface some more, venturing toward the shadow line, this was where the surface of the moon was in the shadow of not just its curvature in relation to the local Sol, but of the planet itself. That was the eureka moment, several of the taggers on were from the commercial sector, their job was separating the elements mined, grading and packaging, and several of them instantly recognised Krypton ice spurs. They were not a common feature by any means, but once you knew of them, they were the sort of thing you remembered you had forgotten, and once reminded, it was an 'oh yes' moment. Ice spurs were a natural phenomenon seen on a few worlds where they formed, often it was where liquid Krypton froze as natural gravitational forces pulled the freezing gas into tubers, these often formed into multiple stick-like constructs, referred to as spurs. They were fragile, there was a fine line between its freezing point and its molten form, and a bigger space to the gaseous state. When frozen, the Krypton shattered, it was more akin to splintered, if you got it right then you could break it into pieces rather than small slivers, but it meant a good harvest was possible with basic tools. Liquid Krypton was difficult to harvest, and in its gaseous state, even more so, but, they had discovered what they thought was perhaps an isolated frozen pocket, that was until they ventured deeper into the dark side and discovered the jackpot, hundreds of spurs.

They had nothing to collect a decent sample with, but they found a dozen small sample boxes in the Shuttle that was gas-tight enough to store the frozen gas, they carefully snapped off several chunks of spur and headed back to the ship parked close to the nearing shadow line.

They made a few smart choices, the first of which was to hover above the surface and look for these spur formations as the surface cooled, what they discovered thrilled them all, these spurs were indeed everywhere. Once they had drifted to where the dark was now becoming light, they watched as the Spurs simply melted back into the sponge-like holes, they assumed, to reappear when it got cold enough, and the centrifugal forces allowed them to be recreated. It was much later when they figured out how it worked, but things had moved on a bit by then.

They were fifteen strong on this two-day jaunt, and all vowed to return with some proper kit to measure the depths and gauge the quality of the Krypton, and more importantly, they made a pact to keep silent, if they were smart, they could make a fortune. As it was, they were not able to return for sixteen days TS, but this time they brought more testing equipment, proper sample collection bins and a bit more of an idea as to what they were looking for. They quickly discovered how the spurs formed and worked out why, and what they saw was the potential to retire early, and at more than just very wealthy.

What they had not worked out was how to get at the mining rights for this moon without alerting the company they worked for, there was no such thing as a discrete enquiry on a mining planet, people in authority often sold information for Coin, if you found a decent site with potential, then half the world you were on knew about it inside a Terran Standard day.

They did their testing and spent the rest of the time working out how to get at the mining rights, they knew they couldn't work this place on their own, it was far too large to control and secure. What they decided was that they needed to form a company, buy the mining rights for the whole moon, then sell these rights in individual plots, that would give them an immediate income, and if they were clever, enough to retire on.

They registered an off-world company and borrowed funds on the promise of a mining operation that they knew the lenders would not be able to refuse, and then set about securing the rights to mine the whole of the moon, it was an unregistered and supposedly unexplored satellite, the PRoC thought that the company were crazy, there was no data available for this moon, and to secure the rights, they would still have to pay the minimal fee upfront, all with no promise of a return. But, the viability of a project was not their concern, as the Planetary Registrar of Claims, they only dealt with the legal aspects of Planetary ownership rights, and, as the satellite was part of a planetary system already claimed, there were considerable fees to be paid. They paid the required fees and then set about promoting the project.

They had plenty of time to plan this part of the venture, and the plan was a simple one, they were going to do no mining of their own at all, they had agreed that the Coin was in the promoting of the idea of the profits to be made per plot, all they were going to do was simply sell the rights to mine a small sector of the moonscape. It was an easy sell, miners are always a sucker for a success story, and they provided the evidence of the find and the potential of the returns, the offers for plots didn't trickle in, they flooded. Every plot was sold in two Getone days, there were six thousand fairly even-sized plots, and they sub-divided some to make the prices more

affordable for the smaller companies and the one-man bands, they made an absolute fortune, and they were smart enough to sell off the resale rights to another rights management company for a rather large fee too.

It was not unheard of that miners were killed doing this sort of work, and under the regulations, if no one provided a legitimate claim on the rights, then the plot could be resold. Many a rights management company would be able to resell maybe fifteen to twenty percent of the claims for this reason alone, others would be sold back when the miners perhaps had enough of the working conditions, or, had made sufficient profit that they could retire, and they could also make some profit in selling back the claim to the management company. Typically, they bought the plot back for the sale price, knowing that the claim was still workable and now they had audited accounts to show how profitable a site could be, subsequent prices for the resale of the plot were of the magnitude of three or four times what the original fee would have been, it was a win-win all around, except perhaps, for the new purchaser.

WunTun was happy with his lot, in the next light cycle, he was to sell two hundred and ninety-six Jumbo crates of Pure, twenty-seven of Contaminated, plus today's totals, and his reckoning suggested that profit was, even after taxes, around five thousand percent of outlay, few on the moon could say that. He had decided that he could afford to take the time for a leisurely bath and then take one of the girls out for a meal, see a show, get a massage, and then sleep. The following day he would re-check his order of stores and provisions, making sure he ordered extra, there were to be two of them in his Habitat Pod on the return in two days Standard after that.

He was to meet his new partner on the day before the sun faded on his plot, this additional body was going to be an unknown, and WunTun had sold half his rights to this person who had begged him to do so, what they wanted was a fifty percent share and only forty percent of the profit, the additional ten percent they were not asking for, was payment for teaching this newbie how to work the plot, how to sell the product, how to survive on the moon, and the planet.

WunTun could teach them the moon side of things with ease, for the sale of the product he would simply introduce them to his contact, and if the kid was smart, he would leave things the way they were. On the planet side of things, it came down to attitude, and if you had the right one, survival here on the surface of Getone was not difficult, it wasn't difficult at all. It was as simple as being respectful to others and expecting the same in return, but if you didn't get it, then you needed the courage to ignore it and get on with your day, disregarding the slight. However, there were times when you needed to stand up for yourself, particularly if there was a risk you were about to get stomped on, but you had to know when to cut and run here too, some fights you were not going to win, those were the ones you needed to have the sense to walk away from. To get tagged in a brawl was stupid, it affected your work, affected your profit, and all too often, it got you noticed by the authorities, which could drop you in a whole other danger zone that you didn't need to be in.

You couldn't argue with the powers that be, they made the rules, if you managed to get around those rules then they were changed so you couldn't do it again, if you tried, you were definitely stupid, that was one battle to steer clear of, the penal

colonies were full of people who thought they were smarter than the Administratum, it was usually far too late when they discovered they weren't.

He had the advantage of his rep, it was perhaps a bit of a sham, but it served its purpose, it usually meant he avoided trouble, though it held no sway with the powers that be, he stayed clear of them where he could, he did what was required of him when he couldn't, he always played by their rules when they were looking in his direction. His new partner would do well to listen to the advice he would give on this, whether they took it, well, that was not going to be his problem in the long run. That was in the future, right now, he needed to concentrate, he cracked the base of the largest spiral of the Krypton tree now behind him, this time taking a step sideways, then he quickly cracked the base of another spiral, and only then did he step forward. WunTun turned to see the main trunk had already collapsed into several of the crates he had placed, there were small chunks still cascading into the Compacts, and the second spiral he had just hit was now falling into the other containers beneath it, the third and fourth spiral had collapsed on their own and were just falling into the crates carefully placed, it was pleasing to see he had got those calculations right, a few chunks still missed all the containers, but that was normal. The fifth and sixth branches were still standing though, he had hoped the vibrations of the others collapsing would also bring these down too, it didn't.

He grabbed the handheld spotlight and shone it at the shorter sixth branch, it was clearly fractured but hadn't buckled, which was not good, the branch was now unstable and at risk of imminent collapse, sadly, you never knew with this stuff. Occasionally, where it fractured, it did so slowly, but by the time the fracture line got to the end of its travel, the start point had already refrozen and held it all together. He checked the fifth branch, unblemished, that was not a good sign either, these two were close together, if he cracked the sixth, he could not be sure the fifth would fall, possibly, there would not be enough vibration to cause the failure of the integrity of the solid branch. There was the problem of the instability of the sixth if he cracked the fifth first, he didn't want to turn his back on the sixth as even the vibration of his footsteps could be enough to make it fall. He could always jump near the sixth branch and hope it broke, but it wasn't precise, there was an element of chance he wasn't keen on, and a factor of risk he didn't like, that was perhaps the clincher. There was also the rising of a new spur in a few minutes, it may be some way off distance-wise, but it could trigger the fall, so, WunTun decided the safest option was to cause the failure of the sixth with a laser torch.

Walking carefully to the sled, WunTun grabbed the laser torch, returned to five meters from the spur and picked his spot. There was still a risk associated with laser cutting, you were heating a fractured and frozen branch of Krypton that you wanted to collapse in a certain fashion, but it didn't always go to plan. It was not unheard of that it would start well, you cut, it broke, it fell, then two or more of the pieces would bounce into each other, and as they were already partially fractured, the resulting impact would fragment the logs into splinters, these often exploded into a thousand needles and they went everywhere, an uncontrolled shattering would often shower

the cutter in shards of frozen Krypton, and if they were lucky they would not get spiked, often, that would have to be extremely lucky.

He had the good sense to get the handheld shield, a toughened Persospex safeguard, a meter and a half in height and almost a meter wide, it was slightly curved, and it was designed so you could hide behind it in moments like these. It was perhaps one of the reasons he was just one of the four left from the group that started when he did, he recognised the risks, and most of the time he knew how to lower them, or even completely nullify them.

He cut the branch just where one of the curves ended, the unbalancing of the branch snapped it where expected, as it collapsed, the fractures had more stress placed on them and they parted, he sort of expected this, this was the calculated risk. Several splinters were ejected at speed, a number of them went in the opposite direction to where he was squatting, a few were fired in his direction and just the one glanced off the shield, spur five remained stubbornly intact. The splinter that worried him most was the one fired upward, it literally went straight up and was perhaps as big as his arm, soon out of sight, and lost in the twinkle of a myriad of stars above him, he tried to calculate the trajectory and failed miserably. The lights of the stars merged with the glinting of the ice crystals in the Krypton, and he soon lost track of this sizeable lump.

The lack of an atmosphere meant the splinter accelerated out of view in seconds, but it would get to a point where it would return to the surface, it would then fall and accelerate as it did so, the same lack of atmosphere would be unable to insert any friction to slow it down, then, it would smash into the surface and shatter some more, even more razor-sharp shards and splinters.

The question was, where, and how long would it take?

The calculations were complex, and it assumed you knew the angle of trajectory and escape velocity of the object, and, that you knew the weight of the object launched, and then took into account the rotational variance of the moon orbit. The time the object travelled to reach its maximum height before returning on a downward trajectory determined how much the surface of the moon moved beneath it, and if it went far enough, it was conceivable that it could miss the moon altogether, particularly, if the escape angle was acute enough. The probabilities were that the lump would not actually get that far, perhaps no more than a few minutes before it returned at a slower speed from which it left the surface, though it tended to be unimportant how fast it returned if it was a heavy object. This chunk of Krypton ice was maybe half a meter in length, it would certainly weigh several kilos, definitely enough to try and shove your helmet through your boots if it hit the right spot. He flashed the laser torch above his head trying to get a reflected variation in the light, he found it, it was almost right above him and it looked like it was coming down already, it hadn't got far. He checked left and right, no obstructions, he knew that behind him was the tool sled, and in front was the remnant of the ice spur, he flashed the torch again, and the reflected flash of the beam showed the splinter was definitely on its way down, there were only a few seconds to impact. He moved right, WunTun would have preferred to duck behind the sled but he was too far from it, he

didn't want to be caught with his back to the impact, any shards would possibly damage his air tanks, and any punctures in the suit would be impossible to plug on his own. He estimated the impact zone was maybe ten meters away, so he turned to face it, slammed the shield into the soil, making sure that it was going to be impossible for any shards to get underneath it, and on bended knee, he leant a shoulder into the shield, that brought his helmet to sit just below the rim, all he had to do now was brace for impact and hope it all withstood the blow.

The shield was angled, hopeful that any direct impact would glance off the surface and pass without much more than a scratch to the Persospex. Tensed and waiting for the inevitable collision, WunTun's helmet lights picked up the lump as it fell back to the surface, it was spinning slightly, and just over two seconds later the lump obliged in a cloud of dust as it slammed into the moon soil. He was perhaps fortunate that he had thought to grab the hand shield in the first place, and following his own safety protocols, he had the shield up on the sled too. The ice didn't smash into the ground flat, it sort of tumbled and folded in on itself, this took much of the impact inertia out of the equation, but it still shattered. There were many needles ejected, and many of these were fired straight down into the dust around the impact site, a few fist-sized pieces were also slammed into the soil to disappear beneath a ripple of disturbed dust. Several bigger pieces exploded outward, one slammed into the remaining branch and brought it down, much of which missed the crates carefully placed to catch a collapsing spur. A few splinters slammed into the already full containers from the earlier collection, these items were heavy enough not to get knocked over, although a few were rocked by the force of an impact or two. A sizeable chunk came his way, WunTun saw it all in slow motion as it spun toward his head, he could clearly see the bright blue crystals in the Krypton ice flashing as his helmet lights danced and sparkled on its fractured surface, he almost smiled at the beauty of it before suddenly realising it was about to make contact with the shield. He thought he heard the crack as this piece slammed into the hand shield, the crack may have been his collarbone giving way as it took the impact from the shield against which it was braced, or maybe, it was when the shield smacked into his helmet, but it was more likely his imagination.

The angle of the shield proved to be sufficient, the blow was a glancing one, but it was still heavy enough to bowl him over.

The view from outside the shield was spectacular, not that he could see it, the stray piece more or less disintegrated into smaller and smaller chunks as it pushed the back of it through the front, eventually becoming no more than grains of sand that continued to travel a short distance before falling harmlessly to the surface, all the velocity and voracity now scrubbed off. As he was blown off his feet, the shield dug up the dust it was buried in, which was now making a pretty picture that looked much like a sand fan with spiral arms that were fading as fast as they had formed, his feet adding a second much smaller fan as they too were spun one hundred and eighty degrees. All he could see right now was dust, he knew he was airborne, well, there wasn't any air as such, instinctively, he let go of the shield and twisted as he came down in yet more dust. He knew he wanted to land on the front of the suit, any

punctures he would then be able to see, and it would protect the important air tanks and carbon dioxide filters. Instead, WunTun landed on his head, considering the force of the impact it was a fairly gentle landing, but he more or less face-planted in the moon soil to the sound of his suit management system running a diagnostic pressure check before he had come to a complete halt.

There was also the sound of his voice in his head telling him, “Stupid, stupid, simple, basic errors, go back to school.”

Thankfully, the louder voice in his ear was telling him that air pressure was still nominal and the screen to the helmet held fast, he had known incidents where the locking mechanism failed and the screen opened, and others where it had cracked, and some, where it shattered, all were not desired consequences.

He checked for more inbound pieces of debris, but as he had lost the shield, WunTun had little protection if anything else was coming his way at speed, thankfully, he saw nothing, but that did not always mean that everything was clear. He slapped his hands together to remove the dust on the gloves, needing to get that off before wiping the dust off the visor, it also meant that it would not scratch the polished surface of the screen. Now, with relatively clean gloves, WunTun could swipe most of the dust from the visor and get a good view of his condition, the HUD was still working, and as he surveyed the scene and considered that he was indeed fortunate, it appeared nothing was broken, his shoulder did hurt a little, but he guessed nothing was broken there either, it was not much more than a noticeable ache rather than excruciating pain, so that was good news. The Heads Up Display showed that he was still pointing in the right direction, and the internal mapping revealed that he had been moved by the impact some ten meters from his original position. In the distance was the shield, and dusting off his EPS further, he walked toward it, the soil nearby glistened with the ice particles now lying on the surface. He went to pick up the shield and found there was a huge impact splatter on it, and in the centre, a snowflake-patterned crack that looked kind of pretty, but he knew that it had now rendered the screen useless, turning it into another souvenir of how lucky he had been so far.

There was just a small part of the handheld screen that remained free of dust, and in the reflection in this spot, there was a brief glimpse of another blue sparkle, this was a fist-size ball of frozen Krypton heading for a soil impact right in front of him. WunTun nearly soiled himself as he caught sight of it, and without too much thought, he stuck both hands out to catch it, the ball dropped into his hands and he sank to one knee in an attempt to absorb the impact weight, he needn't have bothered, it weighed less than a kilo and was not travelling at great speed. Perhaps the lucky bit was the part that landed in his gloves, it was smooth, the end pointing at his helmet was angry and sharp, proper nasty and a spike risk. He wandered back to the sled with this small lump in his hand and a bigger lump in his throat, gave the sled the once over, and could see a few splatter marks here too, but the shielding was undamaged and had done its job.

OK, that is your first chapter preview (21 pages of 42), I hope you like it. Depending on the version, the kindle edition is around 600 pages, the printed version (6x9”) is around 480 pages, in either case, all the full editions are nearly 297,000 words.

Earning the Spurs was released in April 2023, to find it and purchase a copy just go to your usual Amazon online store and enter the title and Author name.

For the printed version, enter the ISBN number below the title

For the Kindle version, enter the ASIN number below the title

or simply go to my Author page and you can find it (and all others published) there.

<https://amazon.com/author/cliffdale>

Glossary

EARNING THE SPURS

Administrators – Officialdom of the Imperium of Man

ACD – **A**irlock **C**ontrol **D**oor, the vacuum of space on one side, normal atmosphere on the other

APV – **A**rmoured **P**rotection **V**essel

Astra Militarum – Imperial Troopers, fiercely loyal to the Emperor of Terra

BFM – **B**reather **F**ilter **M**ask, a basic mask to adjust air content breathed in

Blaster – A very fast forming spur, often hazardous

Bubble – a gas bubble in the semi-frozen tuber that eventually forms a spur

Ceesah – Squawk for the Commercial Sales Agent (CSA)

Cracking – The breaking of the frozen Ice Spur with your pick

Coin – the currency, money, often referred to as credits

Compact Crates – a smaller version of the Jumbo, same length and width, but half the height

Contaminated – Term used for Krypton ice that is not 95% Pure (clean)

CSA – **C**ommercial **S**ales **A**gent a commodity broker, the person to whom you sell your harvested product, in squawk, ceesah

Currency Depository – the Bank, coinage was not used, instead, you paid by a payment card system all handled by the Currency Depository service

Digi-Pad – **D**igital keypad, found on door entry systems, Habitat Pods, Secure Compounds etc

DMO – **D**ock **M**asters **O**ffice, arranges Transports and Docking, in squawk they were the Demo

DoCs – **D**ocuments of **C**onfirmation, everyone should have personal documents for Identification

Eatery – places that sold food, a café or restaurant

EES – **E**mergency **E**gress **S**helter – a basic safety shelter on the moon/planet surface usually 4 man size, also comes in 2 man /8 / or super large of 16

EPP – **E**nd **P**roduct **P**rice, (Trade price 60% of EPP, Contaminated 60% of Trade)

EPS – **E**nvironmental **P**rotection **S**uit, your basic space suit, suitable for other environments too

Fancy – (or Fancies) are a paid for-love interest, for hire short-term, or paid to co-habit in the long term, not the same as a LiPee (see)

Gear-Sled – a wheeled or tractor tracked sled, typically for transporting boxes of product or supplies on the planet or moon's surface

GMS – **G**lobal **M**apping **S**ystem – satellites providing a digital map reference system to determine position, the map can be displayed in the EPS helmet HUD

Habitat Pod – a Living space on the Moon or planet surface, usually a pressurised air-filled living and wash space with catering and toilet facilities

Handheld (Persospex) shield – a meter and half in height and almost a meter wide, slightly curved, and it was designed so you could hide behind it

Helibobber – A helicopter, usually passenger transport or small cargo delivery

HTV – **H**ire **T**ransport **V**ehicle, basically, a taxi

HUD – the **H**eads **U**p **D**isplay commonly in the EPS helmet, most used for map references via the GMS (see)

INATSiR – **I**mperial **N**avy **A**utomated **T**ransponder **S**ignal **R**eaders, verifies any vessels transponder ID signal

Imperial Troopers – Astral Militaria, a vast collection of militia loyal to the Emperor and found on many planets, often sourced from the indigenous population

Jumbo Crates – an alternative name for Storage Boxes

LaRF – **L**oading and **R**etrieval **F**eas, payable at the Dock Masters Office.

Laser Torch – cutting laser

Late meal – evening meal

Lifter – a simple cantilever box stacker

LiPee’s – squawk for Life Partners, a companion/love interest not paid, doing it for love, not Coin

LiSP – **L**ife **S**aving **P**ack, basic puncture repair kit for your EPS, patches, glue and inert powder

LMAO – **L**and **M**anagement **A**gents **O**ffice they sold the plot spaces

LMO – **L**oad **M**asters **O**ffice (checks product in/out) in squawk speak, Elmo

Midmeal – midday meal

Militarum –. The military on the planet

Ministry – The name given to the orphanage run by the PG on Getone

Mornmeal – breakfast

Newb – (or newbie) a slang term for someone new to something, like mining

OPS – **O**rders **P**rogression **S**tatus

PayPAD – **P**AYment **P**roduct **A**ceptance **D**evice, card payment system

Persospex – A plastic resin, clear like glass, super tough

PFDS – **P**ersonal **F**unding **D**epository **S**ervice – basically, a banking account

PG – The **P**lanetary **G**overnment

PGIB – the **P**lanetary **G**overnment **I**ntelligence **B**ranch, police of sorts

Pokehole – Jail, lock-up, prison

PRoC – **P**lanetary **R**egistrar of **C**laims, they hold the Galactic register of who owned what planet and where

Pure – harvested Krypton ice that is deemed as 95% clean (not dirty/Contaminated)

QR Code – **Q**uantitative **R**eference **C**ode is a label system typically on each Jumbo, displays content, weight, etc

Rep – squawk for Reputation

Roller track – a rolling track system of motorised rollers for loading / unloading goods onto a transport ship and similar

RTG – a **R**adioisotope **T**hermoelectric **G**enerator, this used the radioactive decay of Plutonium 238

SAR – **S**uper **A**ccess **R**oad, 15m wide, around all 4 sides of a whole plot

SLF – the local police force, **S**ecurity, **L**ocal **F**orce

Spiked – natural occurrence, pierced by a rising Ice spur for example, not the same as being tagged

Spur – The frozen formation of tubers, often twisted and sharp, may be ejected from a ventricle at speed

Squawk – speech where Acronyms are made into words, e.g., DMO into Deemo

SS – **S**taging **S**tation, basically a Space Station, usually a resting point to refuel or a sales point for product

Storage Boxes – Red was Contaminated, Green was Pure (clean), also called Jumbos

Tagged – man-made occurrence, typically an (EPS) suit puncture, also stabbed in a fight, not the same as being spiked

TS – **T**erran **S**tandard, the same as on Earth, usually related to time

Tuber – a tube-like projection of the semi-frozen Krypton, several tubers twist together to form a spur

Utility Belt – a belt outside your EPS for holding various small tools like brushes, torches etc

Ventricle – The hole in the moon’s surface from which a semi-frozen Krypton tuber is ejected

About the author –

Born in 1961 in London, England, he moved near to Bristol in the summer of '69 and recalls seeing the grainy black and white images of the first moon landing as it happened, it was an exciting time of discovery. Cliff was already an avid reader of Science Fiction by then and was brought up with the excellent BBC TV series Doctor Who, he vividly remembers watching it in black and white in the mid-'60s, (hiding from the Cybermen behind the sofa!), and, reinforcing the Sci-Fi adventure with other TV series in the '70s and '80s with the likes of Blakes Seven, Quatermass, Day of the Triffids and more.

He left school for college, studied catering, became a chef, and started work for the MoD for a while, which is when he began writing just for fun, essentially just scribbles in a notebook (the paper kind), none of which have survived to tell any tales.

He got married, to Caroline, they had children (2 boys) and the books took a back seat while family life continued, and other commitments took priority. The kids grew up, eventually moved out, and the parents moved on, Caroline and Cliff moved to the Costa Del Sol and have never left it, they have moved around a few times, but the weather there is better for Caroline's health. Once there, the original typed notes for his early book were rediscovered, that book, Orbiter One, kickstarted the little grey cells again, and more storylines were compiled for the Orbiter One series, and other different stories were written, now there are several available, like this example, and there are more planned with some waiting to be finished, it seems there are not enough hours in a day, but, he manages to work on more stories here and there, and, there is still the same patience from an understanding wife, more green tea, and many enjoyable hours of thought-provoking contemplation with Pink Floyd, David Bowie and Be Bop Deluxe.

Now, at over 60 years of age, he does have a bit more time available, but, as he mentions, not quite as much time left as when he started the original writing idea, but there are hopes to be able to complete a whole series of follow-on stories to some of the books completed.

They are both still on the Costa del Sol enjoying the Spanish weather at the new Finca (house move number 5), with freshly picked and squeezed OJ for breakfast, straight out of the orchard, and fresh lemonade for the afternoon.

At the time of writing this, several other stories are also complete, but this is the 6th book to be released, and the second independent story, other books are already well mapped out and ready to put to digital ink when Cliff can find the time.

Anyway, enough of this waffle, Cliff hopes you enjoyed the book, and perhaps you will come across others previously published in due course.

(January 2023)



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 *Cliff Dale*