

## PROLOGUE

*The basement is dark and quiet.*

*A figure, stripped to the waist and kneeling takes the blade in his right hand and draws it across the skin at the joint of his left arm and shoulder, tracing the scar of a previous cut. The blade is sharp and the scar opens easily, letting blood run down skin quivering at the bite of the knife.*

*‘The first,’ he says, his voice low in the darkness. ‘This blood binds me in pain with the Sacrament. As it suffers, so must I, until all suffering will end.’*

*He switches the blade to his left hand and repeats the cut on his right shoulder.*

*‘The second,’ he says, continuing the ritual learned from a hospital worker in the southern Turkish city of Ruin, a man loyal to the cause who had faithfully recorded everything the dying Sancti said through their delirium and suffering. The knife continues to cut, drawing fresh blood from old wounds, carving the same pattern he has seen on the bodies of the sacred monks, captured on a camera phone by the same spy after their suffering had finally ended. It is a ceremony that remained secret and locked in the Citadel at the heart of Ruin for thousands upon thousands of years. The enemies of the Church believe that the death of the Sancti and the breaching of the Citadel mark the end of the old ways.*

*They are wrong.*

*When the ceremony is over he cleanses his wounds, flushing them with saline solution before drying them and sealing them with superglue that stings as it binds the flesh back together. The pain sharpens his mind, and so does its purpose. Only through suffering can redemption be reached, and only through sacrifice can the enemy be beaten.*

*He dresses quickly, buttoning his high-collared shirt to hide the scar on his neck and fixing his tie. Only a very few know him by the name he wears, down here in the dark: Novus Sancti, keeper of the sacred flame.*

*But he is not alone in the shadows. There are others, many others like him who have devoted themselves to the silent and secret protection of God's sacred mission on Earth. They are everywhere, woven into the fabric of society – law makers, politicians, opinion formers – the crosses round their necks the only sign that they serve a higher law than those of the lands they live in. They are Legion, for they are many, an army waiting to be mobilized when judgement day draws near.*

*And that time is now. He knows this to be true, for he has seen the signs and felt the call inside him. God has spoken to him and now he will answer.*

*He slips on his jacket then mounts the stairs back up into the modern world like a man rising from the dead.*

*Reborn.*

*Renewed.*

*Ready.*

# 1

Merriweather looked up at the bank of screens.

Something was wrong.

He glanced behind him though he knew he was alone in the control centre. Everyone else was at the inter-departmental party they threw each year to mark the start of the Christmas holidays. Merriweather wasn't big on parties. He didn't drink and couldn't do small talk so he'd volunteered for the caretaker watch to garner some points with colleagues on the Flight Ops Team and bag a little heavy-duty processor time to crunch the deep space data he was working on for his PhD.

He leaned forward in his chair and cocked his head to one side, listening to the chatter of the hard drive. Some people could listen to a car engine and tell you what was wrong with it, others might hear one bum note in a symphony played by a sixty-piece orchestra, Merriweather knew computers – and this one definitely sounded hinky. There was a hitch in the processing tone, like a broken tooth on a clock wheel or a fresh scratch on one of the classic 45s he liked to collect. He stroked his knitted tie nervously as he considered what to do. Unlike the other techs at the Goddard Space Center, Merriweather was strictly old school. He wore a tie every day, along with pressed trousers, horn-rimmed glasses and neatly combed hair – just like his boyhood heroes, the Houston mission controllers of the sixties and seventies. He also liked rules and order. He didn't like it when things went wrong.

A tap on his keyboard banished the Pillars of Creation

screensaver, the most famous image taken by the Hubble telescope, controlled from this room and currently orbiting Earth six hundred kilometres above Merriweather's head. He ran through the standard checklist of the latest telemetry: temperature normal, speed steady, all systems green, no fluctuation in the solar wind – nothing abnormal.

He typed in a string of commands and the big screen on the wall flashed up an updated image from the main reflector feed. It showed the luminous swirl of Cosmos-Aztec6, thirteen point four billion light years away – the furthest system ever observed from Earth.

The processor crunched again, making Merriweather wince, then something happened that he had never seen before. An application auto-loaded on to his desktop, a large window filled with numbers.

'Virus,' he said. 'We have a virus!'

No response. No one there.

The numbers remained on screen for a few seconds then disappeared. Merriweather tapped the keyboard and shook the mouse. He kicked back, rolling his chair away from the desk and across the floor to another workstation. Same thing: frozen screen, frozen keyboard. The processors chattered feverishly as they continued to feed on whatever digital poison had somehow found its way into the pristine system.

The main screen flickered and Merriweather looked up. The image was beginning to shift and disintegrate. Whatever had locked him out was now taking control of the guidance systems. The telescope was moving.

He fumbled for a desk phone, knocking the receiver to the floor, pulling it up by the cord and stabbing a button marked 'Dr Kinderman – cell phone'. On the screen the image continued to break up as the telescope turned. In his ear the ringing tone began. Somewhere down the hall a Marimba tune rang in synch with it.

Merriweather clamped the phone under his chin and went

through every reboot command he could think of to try and unlock the keyboard. Nothing. The ringing tone continued in his ear. He dropped the phone on the desk and launched himself towards the exit.

Outside in the corridor the Marimba was louder. It was coming from Kinderman's office. He arrived at the door, knocked once out of habit then opened it.

The state of the office came as a complete shock: wrenched-open drawers, papers everywhere, books all over the floor. The cell phone was on the desk. It shimmied a couple of times, vibrating in time to the ring, then stopped. In the silence that followed Merriweather heard the crunch of the pernicious code coming from Kinderman's terminal. He moved cautiously into the room, wading through drifts of paper, until the monitor came into view. He stopped dead when he saw the message on the screen:

MANKIND MUST LOOK NO FURTHER

## 2

Shepherd took a deep breath then let it out slowly, trying not to make a sound as he edged forward down the dark corridor, gun first towards the solitary door. It was open slightly, the splintered timbers around the lock evidence of how many times it had been kicked in over the years. Somewhere above him the Virginia winter wind moaned through broken windows, filling the derelict townhouse with whispering voices. It was two below outside, probably colder in here, but he was sweating beneath his body armour.

He stopped a foot short of the door and leaned against the wall, feeling the flex in the plasterboard and timber frame – not much good for stopping bullets. He hunkered down below eye-level like he'd been taught and slipped his scoping mirror from his belt then past the edge of the doorjamb.

Daylight leaked in through high, narrow windows sketching the outline of a room: another door set into the far wall, a table in the centre spilling over with various items – a man and a woman standing directly behind it.

The skin tightened on Shepherd's scalp. The man's eyes, framed by safety goggles, seemed to be staring straight at him. He saw a hand clamp tighter across the face of the terrified woman, held in front of him like a shield, saw the other hand rising up.

He leaped away just as gunfire shattered the cold silence and bullets smacked into the wall where he had been resting. He rolled into a new position further down the corridor and levelled his gun at the door. 'FBI!' he shouted. 'Drop your

weapon and come out slowly with your hands on your head. We have the building surrounded.'

*Not true.*

*He was a lone agent following a cold lead that had just gone volcanic.*

He heard noises coming from the room, something clattering to the floor then footsteps scuffing away. He moved forward in a crouch, gun just below his line of sight, free hand reaching for a stun grenade on his belt. He pulled the pin and tossed it round the doorframe.

The grenade clattered across the floor, clanged against the metal leg of the table then detonated with a lightning flash that Shepherd saw even behind his closed eyelids. A sharp, percussive boom-shook the wall and he was up and into the room.

No one there. Far door open.

He ran through the white magnesium smoke, performing a quick inventory of the table as he passed: 9-volt batteries, wire cutters, soldering iron, duct tape, vacuum packs of plastic. Bomb-making equipment.

The smart move would be to regroup and call for backup, but the suspect knew he was cornered. He had fired shots and fled, even after Shepherd had identified himself as FBI. He was desperate, and therefore unpredictable.

And he had a hostage.

If Shepherd waited for other units to show, the suspect would probably kill the woman and make a run for it. But right now he was vulnerable, his ears ringing from the pressure wave of the grenade, his eyes useless in the gloom of the basement. Shepherd had the advantage, but it was slight and wouldn't last for more than the next few seconds. He had to make a choice.

He took a breath and swept his gun arm round the edge of the doorframe, following it into the second room. The suspect was in the far corner, backed up against the wall, the hostage still in front of him and terrified.

Shepherd stood square on, maximizing the cover of his body armour, his gun steady in a good two-hand hold, trying to fix the front sight on what he could see of the suspect's face. With his peripheral vision he sucked in the detail of the room: a single mattress on the floor; a low table next to it; a movie poster tacked to the wall with a burnt-orange sun and slashed white lettering. His mouth went dry as buried memories rushed out of his past.

*The dank smell . . .*

*. . . the same sun on the same poster . . .*

*. . . a room just like this.*

He tried to zone it all out, keeping his eyes on the suspect and his mind on the here and now, but the sun kept pulling at him with something like real gravity, dragging him back to that dark, dark place he had done everything he could to forget.

His hand began to tremble. The suspect was shouting but he couldn't make out what he was saying. Then he saw a hand rise up. Something in it. Some kind of button with a wire trailing down to the belt bomb wound around the hostage's neck.

Behind them the sun blazed on the wall like an omen of the explosion to come. Shepherd felt weak. He couldn't hold it together. His whole world condensed to the end of his gun and the suspect's face came into focus along with the words on the movie poster.

*Apocalypse Now*

He pulled the trigger.

Adjusted for recoil – everything muscle memory now, drilled in deep from hours on the range – squeezed off another round. Saw an explosion of red beyond his gun-sight. Then he watched in silence as both suspect and hostage fell in crumpled slow motion to the ground.

In the stillness that followed, Shepherd felt everything drain out of him. His eyes drifted back to the molten sun, his hand dropped to his side, the red-handled gun dangling from his



curled trigger finger. He didn't even feel the instructor take it from him, or register the fluorescent lights flickering into life above his head. In his mind he was still back there, staring at the same poster on a different wall – the room where she had found him and they had saved each other.

*'... Shepherd ... !'*

The voice seemed to come from very far away.

*'SHEPHERD – YOU OK?'*

The granite face of Special Agent Williams slid into view, obscuring the poster and breaking the spell.

Shepherd blinked.

Nodded.

*'You made some tactical errors.'*

He nodded again.

*'Get yourself over to The Biograph for a debrief.'* The Practical Applications instructor slapped him on the back with a hand made solid from years of pulling triggers and turned to the two actors, already on their feet and tugging wet-wipes from their pockets to clean away the red dye from Shepherd's training pistol. They each had an impact mark on their forehead, just above the eye. Kill shots both.

*'Back to initial positions,'* Williams barked. *'Next trainee coming through in five.'*

# 3

Shepherd stepped out of the front door of the townhouse into the teeth of a westerly wind straight off Chesapeake Bay and headed away along Main Street.

Hogan's Alley covered ten acres of the Marine Base in Quantico and was built as a microcosm of any-town America with its own bank, drug store, hotel, gas station – basically all the institutions criminals targeted out in the real world. Normally, the whole town echoed with radio buzz, shouted orders and the crackle of gunfire from FBI, DEA and other assorted law-enforcement officers as they learnt the art of urban tactical deployment. Today it was almost deserted, like everywhere else, as the whole base wound down for the Christmas holidays. Shepherd noticed a stuffed Santa dangling from an upper window of the Coin-Op Laundromat swinging in the strengthening wind like a hanged man. Someone had shot him in the ass with a paint-round: so much for the Christmas spirit.

He hunched his shoulders against the chill and looked up at the night sky out of habit. The evening star had already risen in the west and, as he looked at it, a huge flock of geese streaked across the sky, their loud honks making him pause. The ancients would have read much into the direction of the birds' flight and the position of the wandering star in the sky. But Shepherd knew it was just nature and that the shifting star was actually the planet Venus whose brightness had always been a comfort to him, even in his most desperate and lonely nights.

He turned the corner just as the streetlights flickered on in

response to the creep of night. At the far end of the block, more light leaked on to the sidewalk from the foyer of The Biograph, named after the movie theatre in Chicago where John Dillinger had been gunned down in the mid-thirties. The marquee above the entrance advertised *Manhattan Melodrama* starring Clark Gable and Myrna Loy, the last movie Dillinger had ever seen. Shepherd reached the unmanned ticket booth and pushed through the door into the space where the foyer should have been.

The classroom held a hundred students seated in concentric rows around a large screen that could be patched in to a number of audio-visual teaching aids as well as any of the sixty-two security cameras set up around the town. Right now it was showing the basement room of the townhouse with Shepherd in the middle of it, frozen in his two-handed stance, his gun pointing at the crumpled bodies on the floor. A man in a black suit stood before the screen, head to one side as if studying an exhibit in an art gallery. 'You see a ghost in there, Shepherd?' he asked without looking round.

'No, sir, I was just . . . it was a high-pressure situation.'

The man turned and gave Shepherd the same hard scrutiny he'd been giving the screen. 'They're all high-pressure situations, son – every one of 'em.'

Special Agent Benjamin Franklin was one of two active field counsellors permanently attached to Shepherd's class, there to give a practical dimension to each lesson, answer any questions and tell the new intake how it really was out in the real world. He was one of those solid, square-jawed types seemingly minted in a different time when men still called women Ma'am and cars were covered in fins and chrome. His short blond hair was receding and fading to ash above pale blue eyes like chips of ice that somehow still managed to convey warmth whenever he smiled, which he did now. 'Might I ask,' he said, 'would you fire again, given the same scenario?' His Carolina drawl gave his words a slow courtliness.

Shepherd thought back to the blur of action as he'd squeezed the trigger, the suspect in his sights but the wrong person ending up dead on the floor. 'No, sir.'

'How do you figure that?'

'Because . . . because I hit the hostage.'

Franklin started up the aisle towards him, buttoning the jacket of his suit and flashing an old, steel Timex. 'Take off your body armour, Shepherd, and walk with me a while.'

The night seemed darker after the brightness of the classroom and the wind had picked up. It was blowing leaves down the street and into Shepherd's face as he fell into step beside Franklin.

'Bout twelve years back,' Franklin said, peering at the darkening forest ahead as if he could see the lost years among the trees, 'I was part of a six-man task force running an investigation into a string of hit-and-run bank jobs across the Ohio-Indiana state line. In each case a lone, masked gunman stormed into a small out-of-the-way bank, grabbed a hostage – always a woman – and threatened to shoot her if anyone tripped an alarm. He was smart to a point because the size of the banks meant security wasn't top of the line so we didn't have any decent security camera footage. Also he never got greedy so was always out and away within a couple of minutes. And he always took the hostage with him, saying if he heard so much as a car alarm he would kill her.'

'As you can imagine the local press shook up a hornets' nest of fear about it all but there was also a bigger concern: none of the hostages were coming forward afterwards. For about a week or so we lived in fear of getting a call from some hunter or dog walker who had stumbled upon the silenced corpse of one of our unfortunate bank customers. Then he hit another bank, third in a month, and we got fresh footage.'

Franklin directed Shepherd away from Hogan's Alley and towards the path through the forest that led to the main building complex beyond.

'This is how it went down. Woman walks into the bank,

talks to the door guard; gunman comes in and disarms the guard while he's distracted, grabs the woman, robbery ensues then perp leaves with a hostage. We could see by comparing the clear images of the new footage with the fuzzy older stuff we had that it was the same woman every time. Turns out she wasn't a hostage at all, she was one of the crew. That's why no one was coming forward afterwards.

'We quietly spread the word among the state banks, so when they pulled another job ten days later in Des Moines, a teller tripped the alarm and the cops got there in plenty of time to pick 'em up. When he was cornered the gunman tried to pull the same hostage routine, said he was going to kill her if they didn't give him a car and a free pass. Cops just told him, "Go 'head, shoot her." All of which brings us back to your little situation. Tell me what you knew about your suspect from the mission brief?'

Shepherd dug his hands deep in his pockets and tried to focus on something other than how cold he was. 'The intel said he was on several international watch lists as a known terror suspect. Believed to be a Jihadist, trained in Afghanistan by Al-Qaeda.'

'And from your reading and case studies do terrorists and other religiously motivated individuals tend to give themselves up to officers of an enemy state they believe they are conducting a holy war against?'

'No.'

'No they do not.'

The trees parted to reveal the Quantico Hilton rising up in front of them, all square lines, slit windows and concrete. This was where the labs and active case teams were housed; proper on-going, messy cases with as-yet undiscovered solutions, not the clean textbook ones Shepherd was being weaned on. It could easily have passed for a small mid-western high-school campus had it not been for the sound of gunfire crackling out of the forest behind them. The next recruit must have made it to the basement. Shepherd hoped he or she was doing better

than he had. Hearing the shots reminded him of all the paperwork he needed to fill out back at the briefing room. The forms for discharging your weapon during an exercise were thorough, tedious and in triplicate for very good reason: it stopped the recruits from getting trigger-happy.

‘Don’t worry about the admin,’ Franklin said, apparently reading his mind. ‘I’ll square it with Agent Williams. You can fill it in and file it after.’

*After what?* Shepherd wanted to ask, but Franklin was already halfway towards the glass doors of the main building.

‘Never forget that you are a highly and expensively trained officer, son. In the currency of law enforcement that makes you an asset to Uncle Sam and a much-valued target to a terrorist. If you don’t take the shot, odds are the bomber will push the button anyway and there will be three bodies to scrape out of that basement instead of two. The hostage dies either way. And, given the little story I just told you, how do you know the hostage was even friendly?’ They moved from the frigid night into the brightness and heat of the executive building. ‘You have to wonder what that woman was doing at dusk in a rat-hole basement with a known terrorist in the first place. I can understand you being upset that you shot someone who might be innocent, it’s a credit to you, but don’t lose sleep over it. You made the right choice, Shepherd. Though you do need to work on your marksmanship.’

They passed the honours board that dominated the glass atrium with the name of every top-of-the-class graduate written in gold, dating right back to 1972 when the doors first opened. Shepherd doubted his name would ever grace it. He was a good few years older than the average intake, which showed in his fitness scores, and his shooting was clearly letting him down. The things he really excelled at were not part of the five areas of ability that went towards his final mark; his expertise had not even been thought of when the FBI first came into being.

The elevator door opened and Franklin stepped inside, waited for Shepherd to join him then pushed button number 6. Shepherd's mouth went dry. The sixth floor was where the most senior personnel lived.

'You cannot have doubts out in the field,' Franklin said, his soft voice sounding conspiratorial in the confines of the elevator. 'Because if you hesitate in a situation like that, you die, or, worse still, your partner does and you end up carrying it around with you for the rest of your life. They don't put this sort of thing in any of the manuals but I'm telling you how it is, for your own sake and for mine – especially if we're going to be working together.'

The door swished open before Shepherd had time to respond and Franklin headed down the silent corridor, checking his watch as he passed all the heavy doors belonging to the sub-division chiefs. The corridor was arranged according to rank with the lesser chiefs nearest the elevator. Franklin swept past them all, heading straight for the door at the very end with Shepherd close behind, feeling like he was back in high school and had been summoned to the principal's office. Only here the 'principal' was one rung down from the Director of the FBI, who himself was just one down from the President of the United States of America. Franklin stopped outside the door, checked his watch one last time then rapped twice above a nameplate spelling out: ASSISTANT DIRECTOR.

In the softened silence of the corridor they sounded like gunshots.

'Come in,' a deep voice rumbled from the other side.

Franklin gave him the smile, only this time the warmth wasn't there and it occurred to Shepherd that maybe he was nervous too. Then he opened the door and stepped into the room.

## 4

Assistant Director O'Halloran was a thin blade of a man worn sharp by a lifetime in the Bureau. Everything about him was hard and precise: the steel rims of his spectacles; the pale grey eyes behind them that looked up as Franklin and Shepherd entered the room; even his gunmetal hair appeared to have been parted with a scalpel rather than a comb. He was sitting at the same immaculate desk he had been photographed behind on the recruitment literature that went with the application form Shepherd had filled out almost a year ago: same flatscreen monitor, same keyboard, same desk phone and framed photograph. The only things different were the two files on the desk in front of him: one plain, the other with Shepherd's photograph printed on the first page. Shepherd's pulse quickened when he saw it.

'You have quite the impressive resumé,' O'Halloran said, tapping a thin finger on the file with the photograph. 'Mathematics major with computer science at the University of Michigan. MSc in physics from CalTech. Best part of a PhD in theoretical cosmology from Cambridge University in England – though you never finished that one, did you? Even so, I imagine you could be making six figures and upwards in the financial sector, yet you chose to sign up as a GS-10 with a basic starting salary of \$46,000. Why is that I wonder?'

Shepherd swallowed drily. 'Money's not that important to me.'

'Really, you a Communist?'

'No, sir – I'm a patriot.'



‘OK, Mr Patriot, tell me about your PhD, why didn’t you finish it?’

Shepherd glanced down at the file, recalling the psychiatric evaluations and background checks that had formed part of his recruitment screening. All of it would be in there, at least everything he had told them. But this was the Assistant Director he was talking to so there could well be other things in there by now – things he had hoped to keep hidden.

‘It’s all in the file, sir.’

O’Halloran regarded Shepherd from the centre of his stillness. ‘I want to hear it from you.’

Shepherd’s mind raced. He was being tested and Assistant Director O’Halloran was far too senior for it to be about something trivial. If it was to do with the parts he’d left out of his past then Franklin could easily have questioned him about it back at The Biograph, which meant it had to be about something else. He should stick to the story he’d already told, volunteer no new information, and hope things became clearer over the course of the next few minutes.

‘I had been in academia all my adult life,’ he said, saying the same lines he had spoken to his recruitment officer. ‘It was everything I knew but not everything I wanted to know. Some people like to gather knowledge just for knowledge’s sake, I always intended to apply mine.’

‘NASA.’

Shepherd nodded. ‘A large proportion of my education was funded by Space Agency scholarships. I also spent a lot of research time on various NASA projects, which is pretty standard for anyone on one of their scholarships: they get extra brain power, we get our feet under the table and gain practical experience of the work we will hopefully end up doing.’

‘So what happened?’

‘9/11 happened – sir. Homeland defence and the war on terror became the number one priority. It took a big bite out

of everyone's budget. Almost the entire space program was shelved. I suddenly found myself with no grant and no job to go to even if I did manage to complete my studies. It was . . . like hitting a wall.'

'So you dropped out.'

'That's one way of putting it, sir.'

'How would you put it?'

'At first I felt cheated, like something had been taken away from me. It seemed pointless to carry on studying for a job that was no longer there. There were plenty of private companies offering to fund the remainder of my studies but they all wanted me to sign my life away in exchange. Work for them as soon as I graduated, study stock markets instead of stars. It wasn't what I wanted. So I took off and went travelling to clear my head and try and work out what I was going to do with my life now NASA no longer appeared to be an option.'

'Where did you end up? There's a gap in your file of almost two years where you seem to have disappeared off the face of the earth: no social security records, no job history, no credit card records.'

'I was off the grid mainly – Europe first then Southeast Asia and eventually Africa, travelling from place to place, working cash jobs in bars and as migrant labour on farms, staying in backpacker hostels that charged by the night. They don't take credit cards in most of those places. I'd been a student for most of my adult life so I knew how to live cheap.'

'Then what, you saw the light and decided to rejoin society?'

'Yes, sir. I realized I was squandering an opportunity. What happened on 9/11 changed my life – but almost three thousand other people lost theirs. My future had been altered; theirs had been taken away. My intention had always been to pay back the money for my education by devoting myself to public service and working for NASA. I came to realize that just because that particular opportunity had been closed to me didn't mean I couldn't pay my dues in other ways.'

‘So you signed up for the FBI?’

‘Not immediately, sir.’

‘No, that’s right.’ O’Halloran opened the file for the first time and flipped to a page near the back. ‘First you worked as a volunteer for various aid agencies, setting up computer networks and fundraising pages and teaching computer skills to homeless people and the long-term unemployed.’ He looked back up. ‘You really weren’t kidding about money were you?’

‘No, sir – it’s never been something that has particularly motivated me.’

O’Halloran pursed his lips and studied Shepherd like a poker player deciding which way to bet. ‘I’m not entirely happy that the Bureau I have served all my adult life seems to be some kind of consolation prize for you, Shepherd, but I can’t afford to turn away a candidate with your qualifications.’ He closed the file and laid a hand on the second one. ‘Are you familiar with the Goddard Space Flight Center?’

‘Yes sir, I spent a few summers there running test data off Explorer 66.’

‘Is that anything to do with the Hubble Space Telescope?’

‘Not really. They both collect data from the furthest edges of the universe, at least they did – Explorer is pretty much used as a test satellite now. Hubble does everything Explorer used to and has a much greater reach.’

The lips pursed again. ‘Not any more.’ O’Halloran opened his desk drawer, removed a badge wallet and handed it to Shepherd. ‘I am not in the habit of sending trainees out in the field before they have completed their training or spent at least a year in a field office, but apparently, out of more than thirty thousand currently active Bureau personnel, you are uniquely qualified for a situation that has arisen.’ Shepherd opened the wallet and saw his own photo staring back from an FBI ID card. ‘That will *temporarily* entitle you to carry a concealed weapon and transport it onboard commercial airlines. You can

collect your Roscoe and a box of shells from Agent Williams on your way out.'

Shepherd read the name printed next to a date that expired in a month. 'My middle name is Thomas,' he said, turning the badge to O'Halloran.

'There's already a Special Agent J. T. Shepherd in the Memphis office and, as no two agents can have the same ID,' he raised his hand and made a small sign of the cross in the air, 'I now baptize you J. C. Shepherd. That's your Bureau name, and you will answer to it. I am placing Agent Franklin in full command of the investigation and you are to follow his lead exactly. You have been assigned to this investigation solely because of your unique and considerable expertise in the field of astronomy. You will use it to assist Agent Franklin in this investigation and give your opinion only when it is requested. The rest of the time you will look upon this as a valuable opportunity to learn on the job from a well-seasoned and highly regarded agent. Once your usefulness to the investigation has been exhausted, your temporary status will be revoked and you will report back here to finish your training, understood?'

'Yessir.'

'I trust you know your way to Goddard from here? There's a car signed out to you in transport.' He took the plain covered file from the desk and held it up. 'Agent Franklin can brief you on the way.'

# 5

Shepherd and Franklin drove for the first ten minutes in total silence, the *whump* of windscreen wipers and hiss of tyres over wet tarmac punctuated only by the rustle of paper as Franklin read through the file. Occasionally he jotted a note in a pocket-book lit by the glow of a small Maglite clamped in his teeth. Shepherd sensed he was unhappy about the situation. That made two of them.

After his performance on Hogan's Alley the last thing Shepherd wanted was to be heading out into the real world with a loaded gun tucked into his jacket. As promised, Agent Williams, the firearms instructor, had been ready and waiting in the armoury with an oiled SIG 226, which he made Shepherd speed-load from an open box of 9x19 Parabellums while he looked on. Shepherd's Catholic education had hammered enough Latin into him to know that *para bellum* meant 'prepare for war'. He tried to push the thought from his mind as he slotted fifteen shells into the magazine, fumbling two, before smacking it home and looking up into the pained expression on the instructor's face.

'Do yourself a favour,' Williams had said, as Shepherd signed for the gun and the spare shells, 'try not to put yourself in any situation where you may have to draw this weapon. Just keep it in your holster and come back as quickly as you can to finish your training.'

Shepherd checked the rear-view mirror. Behind him he could see the lights of the grey panel van that had followed them out of the gates at Quantico. It was a tech wagon, loaded

with forensics equipment and two Physical Science Technicians ready to process the crime scene his former workplace had now become. They were on I-95, heading north: the bright lights of DC spread across the horizon ahead of them like a luminous stain, lighting up the low cloud that was spilling monsoon-level rain over everything. The weather was slowing them down but at least it would be too late for commuter traffic to be a problem when they eventually hit the capitol. He figured they would be in Maryland in twenty minutes, though he still had no idea why they were heading there.

The Maglite twisted off in the passenger seat and Shepherd heard the creak of the vinyl seat as Franklin turned to him. ‘That little story you span back there,’ he said, ‘your tale of travel to the far corners of the world to find yourself – I just want you to know, I ain’t buying it.’

Shepherd felt heat on his cheeks and was glad it was too dark for Franklin to see. ‘I don’t follow you, sir.’

‘I’ve spent over twenty years talking to people who have done everything from write bad cheques to kidnap children so they could torture them for fun, and you know what every single one of ’em had in common? They all tried to lie to me. Now you may have all your highfalutin’ degrees in astrophysics and rocket science and whatever else, but I got a degree in people and I know when someone is spinning me a line. I can smell it on them, and right now, Agent Shepherd, you stink.’

Shepherd said nothing and kept his eyes on the road.

‘Now I don’t really care all that much why you’re lying or even what it is you’re hiding, what does concern me, however, is having a partner I can’t trust. Having a partner you can’t trust is like having no partner at all, and that’s dangerous, Agent Shepherd, as you just discovered down in that basement. So if at any point you feel like kicking a piece of the truth in my direction – man to man, partner to partner, in the knowledge that, felonies aside, it will go no further – then we’ll get along a whole lot better. In the meantime, operate on the

assumption that I'm apt to doubt every single goddam word that comes out of your mouth, understood?

'Sir, I promise you . . .'

Franklin raised his hand and turned his head away. 'Don't make it worse by lying to me again. I'm being honest with you, Agent Shepherd, I'm just asking for you to do the same.'

The seat creaked as Franklin turned back to the briefing documents. 'OK, now I've put it out there so you know where we stand you can make yourself useful and explain to me the wisdom behind spending over a billion tax dollars putting a telescope into space that then costs over forty million dollars a year to run.'

Shepherd stared ahead through the spray and considered the question, relieved to be back on safe, familiar ground. He thought about the unimaginable distances the Hubble Space Telescope could penetrate compared to the relatively puny ones achieved by terrestrial instruments. He thought about the light from dead stars it could gather from the pure nothingness of clear space, carrying information all the way back from the beginning of time. But in the end he kept it simple. 'How many stars can you see tonight?' he said.

Franklin looked out into the wet, black night as a Big Rig hooned by, going way too fast for the weather and throwing up so much spray you could hardly see the edge of the freeway let alone the sky. 'OK, fair point, but why not just build a telescope on top of a mountain in Mexico or somewhere the sun always shines. Hell, why not just wait for a clear night, be a lot cheaper.'

'They did all that. There's a fifty-metre dish on top of the Sierra Negra volcano in south Mexico that can observe both northern and southern skies. It's pretty impressive. Trouble is the earth keeps turning, so it can only study a piece of sky for a few hours at a time. A space telescope like Hubble can lock onto a distant object and keep it in its sights for months, years even, while the earth turns beneath it.'

'And that costs forty million a year?'

‘It’s a very complicated process.’

Franklin grunted. ‘Sounds like a scam to me.’

Shepherd considered letting it go but didn’t want to slip back into the uneasy silence. ‘How good a shot are you?’ he asked.

‘Better than you, *Special Agent*.’

‘You think you could hit a tin can on the side of the road from a moving car?’

‘Depends how fast the car is going.’

‘Say it’s doing thirty.’

‘Nine times out of ten.’

‘What if the car was doing eighty-five?’

Franklin considered. ‘Maybe three out of ten.’

‘OK, now imagine the car is doing eighty-five thousand miles an hour and the tin can is on the other side of the country, perched on top of the Hollywood sign. Think you could hit it then?’ Franklin didn’t reply. ‘Hubble could. It could lock onto that can and take a picture of it so steady you could read the label. It’s orbiting the earth at around seventeen thousand miles an hour, and the earth is orbiting the sun at sixty-seven thousand miles an hour. That’s a total of eighty-four thousand miles an hour and yet Hubble can still fix onto a tiny patch of sky nearly fifteen billion light years away. It’s one of the greatest miracles of modern technology, the pinnacle of man’s achievements in science. That’s why it cost so much and needs all that money to run it.’

‘And all of that is controlled out of Goddard?’

‘Yes.’

Franklin shook his head. ‘Not any more – right now your gold-plated telescope couldn’t hit a barn door with a banjo. It’s spinning around up there like a bottle at a frat party. Someone managed to upload a virus that knocked out the guidance system and shut down all communication.’

‘Really? That would be – very difficult.’

‘How difficult?’



‘When I was working at Goddard they had a small systems security scare. One of the ground operating stations for another satellite was left wide open via an email account and some kid hacked into it. He didn’t do any damage but some of the ops systems got infected with internet junk that flowed in through the hole he’d made. It was picked up pretty quick and fixed but it prompted a review of the whole system. How much do you know about government cyber security?’

‘About as much as you know about firing guns.’

‘OK, so all state owned and operated computer operating systems are rated according to the Orange Book scale drawn up by the Department of Defense. This lays out specific security criteria for all government systems ranging from a D grade for non-sensitive, clerical stuff all the way up to beyond A1 for things like the NSA, the FBI and the military systems that launch the nukes. Following the scare at Goddard all the operating systems had to be upgraded to at least an A1. That means the prospect of Hubble’s ground-based operating system being breached by any kind of regular cyber attack is extremely unlikely. It would be like a junkie with a twenty-dollar pistol knocking off Fort Knox. Whoever did this must have known exactly what they were doing.’

‘You think it’s an inside job?’

‘Has to be. We should talk to Dr Kinderman, he’s in charge of Hubble and helped redesign the new system. He’ll be able to give us the names of everyone with the right kind of technical knowledge and any ex-employees who might have an axe to grind.’

‘Good thinking, Agent Shepherd,’ Franklin said, ‘only problem with your otherwise flawless plan of investigation is that Dr Kinderman is AWOL. Right now he *is* our number one suspect.’