

# Flying CARPET

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## Rajnar Vajra

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Recently, I'd given in to marital pressure and upgraded our aging but perfectly adequate home AI to the latest Household Operations Serving Technology, model J33V35, "Jeeves." It had taken me three intense hours to install, program, debug, and get the new HOST interfaced with the extended range in-wall speakers I'd been pressured into installing last month so that a certain party could enjoy ultra-fidelity sound anywhere in the house.

Now I was regretting the upgrade. This AI was a whole lot smarter and more sensitive than the old system.

I smelled coffee brewing, which meant Jeeves had calculated from our breathing or heartbeats or movements that at least one of us was awake. Either that, or the HOST had already come down with a case of system error.

I didn't want to be the only one awake. Such things bring responsibilities, and I felt lazy as . . . well, me every morning.

Lying face up, I barely had to turn my head to study the two women bracketing me. I kept my eyes nearly closed, trying to appear asleep to anyone feeling equally lazy and inspecting me for signs of alertness.

Allyse lay snuggled against my left side, a lock of her bronze hair tickling my arm. Her eyes were shut and her breathing slow. This told me nothing. Her hair hid her throat, where her pulse might've given me a clue. To my right, Devorah, my instructor in the art of reading pulses and reading faces, also seemed asleep. Her short white-gold hair left her neck exposed, but her back was to me so I learned nothing definitive. Her breathing, too, suggested the deepest snooze. Still, I sensed that someone, aside from me, was faking.

I played dead for another minute, trying to ignore increasing hints from my bladder. Recorded ocean waves and live melodies from a neighborhood oriole made the room peaceful as a still lake. None of us so much as twitched.

"Fine," I whispered. "What are the chances someone else will be bringing coffee this morn?"

Both women spoke at once. "Zero to none," Dev murmured with more artificial sweetness than I'd dare put in her java while Al said "Less creamer this time, Jackson, si vous plait."

I pampered my bladder, then donned my robe and headed downstairs with the kind of tread I hoped would express a justified sense of being put-upon. Hearing the offensively wide-awake voices now emanating from our bedroom, I deduced that my stomps had gone in vain. Dev was

teaching me how to think like a police detective, and her training was clearly taking hold.

Jeeves had warmed the stairs for the comfort of bare feet, but the kitchen still felt chilly. The HOST had, however, already pre-warmed our cups.

“Jeeves,” I said, “you are my only true friend.”

“Very good, sir,” came the response from the nearest CAVE speaker, which could, for no good reason, produce sounds so deep they’d make an earthquake jealous and sounds so high even a cat couldn’t hear them. Jeeves’s politeness cheered me even though I’d programmed that response myself.

Lesser humans might use a tray to carry three cups of coffee. I carried one cup, gripping the other two handles with my other hand. Didn’t spill a drop on my way up the stairs, but toward the top I stopped, less to cavedrop than to avoid interrupting something truly rare.

Dev regarded herself as a practical person, focused on evidence and logic. Now I heard her confessing a feeling vaguer than a hunch, and it obviously made her uncomfortable. Her lovely Brazilian accent had thickened, and she sounded younger and uncharacteristically uncertain.

“Can’t put a dedo—a finger on it, Alyse. Just a . . . wrongness.”

A chill trickled down my spine. I suppose forebodings can be catching.

“If I had your job,” Al said, “I’d constantly feel that way. Crime never sleeps, right?”

“Não. This is different.”

“Maybe your subconscious picked up on something but isn’t ready to go public.”

“Now you talk like our Jack.”

I climbed the final stairs and entered the bedroom. Jeeves had replaced the sleeping ambience with Friday morning baroque, Lully I think, and Alyse had scooped over next to Dev to un-complicate the coffee-delivering process. I planted myself on Al’s side of the bed and waited for the conversation to resume.

It didn’t. Dev changed the subject, and her mates took the hint.

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When I first moved to Connecticut, traffic tended to be a nightmare anywhere near Hartford, horrendous during rush hours. Greater Hartford’s latest Automatic Traffic System has cut my average commute from home to High Street to a mere twenty minutes.

The new six-lane time-stiles work perfectly. The old stiles, allowing only two cars at a time to reach the highway gates, created queues a half-mile long. Now I typically reach I-91 within five minutes.

Dev and I carpoled as always, but got interrupted halfway to work by a call on her police-band implant. I knew this wasn’t trivial from the way Dev tensed up.

I happened to be slouched behind the wheel, letting the highway ATS do the driving, but I instinctively sat up straight before Dev spoke.

“Take the next exit,” she ordered. “We’re both needed at a crime scene. Then at another. No siren.”

“Why would they want *me*?”

“Something technical, what else? I don’t have details.”

I triggered the exit blinker. The system ushered us into the far right lane, and then onto the next off-ramp. We passed though the stile, and after a warning buzz, I had control over the car. Dev guided me to our first destination, following GPS instructions from her implant. We pulled up to a curb near a parking lot’s worth of official vehicles. An officer posted at the door of a well-kept Colonial handed us shoe-covers, gloves, oversized jumpers, and small tubes of odor-killing paste. That last made me wish I were elsewhere, but we donned the gear, and I followed Dev inside.

We both stopped a few feet in to smear paste on our upper lips, and even then I caught whiffs of rotting meat and voided bowels. No corpses in the living room, but I guessed more than one was somewhere in the home from the intensity of stench. Houseflies buzzed. An officer waved Dev toward a staircase while a dark-suited man whose face had apparently spent too much time in a boxing ring called me over to join him near the home’s central control panel. I felt immensely grateful to not be following Dev up to the bedrooms.

“Jack Monroe, right?” the boxer asked.

I nodded agreement. I'd seen this detective at headquarters, but we'd never more than nodded.

“I'm Mike Cassidy, Homicide.” He didn't offer to shake hands, which I guessed was crime scene protocol. “I'll fill you in.”

We both turned toward the staircase as crews descended, carrying two gurneys supporting filled body bags, one adult size and one much smaller.

I turned back. “What happened here, Detective?” My voice squeaked, and I had to dab another smear of paste beneath my nose.

“Seven deaths. The entire Bennett family, two parents, two grandparents, and three kids. A relative with entry privileges couldn't reach them, got worried, drove here, and found 'em this morning. The ME thinks carbon monoxide, and that it happened between 2:00 and 3:00 AM Wednesday morning.”

I shook my head, stunned. “How—how could that be possible? Every home in Connecticut is required to have safeguards that—”

“*How* is what you're here to figure out, Monroe. Forensics checked the boiler, but the first word is nothing seems wrong. Venting perfect, boiler efficient. House air is good. Aside from the stink.”

I brushed some hassling flies away and frowned at the panel; every control light glowed a healthy green, and none flickered.

“You think their *HOST* caused the deaths? No way!” Also, even the earliest model *HOST* would sound CO alarms, alert emergency services, and if anyone stopped breathing, would instantly call the police.

Cassidy shrugged. “Something sure went wrong here, and right now no explanation makes sense. We need to check every possibility. Your part is to test the tech. You're the top tech guy, right?”

I frowned, pointing at the panel lights. “Looks perfect, but I'll run a full system scan. Mainly to rule out the impossible: that the *HOST* caused this.”

“Go to it. Hey, I heard about you. You're in a three-way marriage, right? What's that like?” He smirked, winning no points with me.

“Complicated.” And not at all what you imagine.

I downloaded the latest diagnostic software into my implant and had the expected hassle getting the *HOST*'s permission to accept me as a temp admin. These things are designed with serious firewalls to prevent tampering. Once the AI reluctantly confirmed my police authorization, I ran the test wirelessly, and my implant stored the data.

“Done,” I told Cassidy who'd been staring at me while I did nothing visible. “I'll analyze results when I get to my office. Detective Silva and I came here together, so one of us will need a ride if you'd like me to study this right away.”

He shook his head. “Both of you are expected at the other crime scene. Better hang until she's ready to go. Wait outside if you like.”

Very much I liked. Getting back into fresh air was a blessing, and I dreaded our next destination.

Dev showed up five minutes later, and soon we were back in the car, on our way. Neither of us spoke.

The second crime scene was worse. Worse stink, more flies. More dead bodies—five adults and four kids. Two of the corpses had died in the living room. I watched the forensic crew in action. Not like on TV. Most of their equipment looked old and battered. Funding issues.

When Dev and I had finished our respective chores, we exchanged a commiserating hug, outside, of course, and drove to headquarters. Not a cheery ride. Then it took so much time for me to interrogate the data from two *HOST*s, and for Dev to do her own work, that we didn't get home until midnight. I'd given Dev the non-results of my labors, but she felt too exhausted to return the favor. AI was already in bed, asleep, by the time we turned in ourselves.

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Next morning, I woke up way too early after a night of little sleep and headed downstairs where I sat in an armchair, futilely interrogating the sunrise. I'd never experienced a murder scene before, and these deaths now meant something personal to me. That chilly touch I'd felt yesterday morning about Dev's hunch was back and had grown long, icy fingers. Jeeves made our coffee maker beep to remind me it was on, snapping me out of something more nightmare than daydream.

I delivered the brews. Dev sighed, took a sip, and started talking.

"Two cases, Alyse. Two families murdered in their homes, the first around 2:30 AM Wednesday, the second three hours later, all doors and windows locked. Carbon monoxide. Gas backup heating, all furnaces checked out fine. Jack worked diagnostics on both HOSTs. Errors? Não! Crazy! Why no alarms? Why wouldn't working AI's flag us that someone had died? Why no record of *anything* wrong?"

A heartbeat-worth of pause from Al, a rarity with her lightning-fast brain. "Would HOSTs have any way to create that kind of pollution?"

"Porra! Of course not!" The more Dev is shaken, the more Portuguese emerges. "Hosts could turn up the thermostat, starting the furnace, sim. But they couldn't make a furnace burn wrong! Não, this was done by cruel hands. Someone to turn on and misadjust furnaces, and later to, eh, normalize everything. But Jack says HOST reports show no doors opened in either home after 10:30 the night before the murders."

"I assume you ran CARPET?" Al said.

"Com certeza! After sweating blood to get an emergency session authorized. Ran a quick week's worth, and then practically real time for hours before and after the deaths. Full moon that night. Even without vision boost, I could see the doors. But nada. No stranger entered or left either home by door or window. Neither place even has a chaminé . . . a chimney."

Al studied her coffee. Genius at work. I could practically hear her polished mental gears whirling. "I see very few realistic possibilities," she said.

Dev snorted softly. "Just one for me. Someone already inside screwed with house systems and furnaces."

The bed frame creaked as Al braced herself higher on my favorite sleeping pillow.

"Devorah," Al said, "you believe the murderer or murderers were hiding inside? Wearing, say, scuba gear? And then what? Waited until everyone else had died before leaving? But if no doors or windows were opened, how did they leave? Also, *two* such bizarre events in one night? So very unlikely, love. Any HOST-authorized family members or friends unaccounted for?"

Dev looked as if she'd bitten into an especially sour lemon. "We haven't found any without steel alibis. Yet."

"At least we can rule out suicides. Who would've adjusted the furnaces afterwards? Also, think about how difficult it would be to bypass all the redundancy in HOST security functions."

"What are you saying?"

Al shook her head. "Neither of you will like this. Perhaps someone with professional skills not only tampered with the HOSTs; they also tampered with your CARPET reconnaissance."

Dev leaned out past Al to look at me. "Is *that* possible?"

Since I was now, thanks to accursed budget cuts, the entirety of Hartford Police Department's full-time IT department and had helped set up Hartford's CARPET in the first place, the issue lay right in my wheelhouse. But before answering, I wanted to feel out the implications. Gradually, Dev's eyebrows rose, and her eyes narrowed and stayed that way. She has an incredibly mobile face, which changes expressions so often you can miss its intrinsic elegance. A bad sign when her face goes still.

"I don't see how," I admitted to starve her impatience. "Can't imagine it could be done remotely. And on site, CARPET security is rock—hell, *diamond* solid."

The silence lasted far too long. I wasn't the only one worried about implications.

Al broke it. "Jack, can you determine with reasonable certainty if anyone unauthorized accessed the system or, ah, its components?"

"You bet. Also anyone authorized. The only way someone could do any video sleight-of-hand

is to hack into the meta-server housed near the CARPET mainframe. That server's strictly for handling and compressing video feeds. Mainframe, server, and controller are all installed in the same radio-isolated room. Isolated except for a single heavy-duty communications port with a firewall that could . . . could block the malware version of a nuclear detonation." I inserted a touch of irony. "And where is this ultra-secure room? Why, in the middle of Connecticut's largest police station."

"Aside from location, what makes this room so secure?"

"It's built like a bank vault, including the door, with state-of-the-art identifying sensors. The only way to reprogram the server is through the controller console. Even then you'd need special authorization."

Dev waved her non-cup-wielding hand. "Perhaps we should climb out on limbs, Alyse, and rule out our Jack as a suspect."

"Thanks for the pass, dear." I gave her a sour look that rolled harmlessly off her. "I seldom murder strangers."

"É mesmo?" Which means "really?" Brazilian sarcasm.

"What happens," Al asked me, "if a component fails?"

"I call the manufacturer, Eladdin. They rush me a replacement, and I install it. Never touched by human hands," I added, trying and failing to lighten the mood.

Dev rested a hand on Al's sheet-covered knee. "Saturday or no, Jack and I should go into work, and I'd adore it if you'd come along."

"And postpone grading student research papers? Superb idea! I'm yours until tonight."

Dev made that little chuckle I love. "Obrigado. Let's get dressed and fed. I claim first shower. If we could leave by nine, it would be great."

"More like a miracle," I muttered, which got ignored. "I'll check in to see if the CARPET room is available sometime this morning."

"Don't bother," Dev suggested. "I'll call Tony and make *sure* it's free when we arrive. I'd say this qualifies as a necessity, não?"

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We keep tightening security at Headquarters, which is a complex of buildings hogging over 150,000 square feet. East and West Hartford have their own headquarters, but this is cop central.

We checked in with Tony Cortez, weekend Operations Officer, and my little family reached the CARPET chamber within two minutes. Even Hartford's Chief of Police, mighty William Warren Lorenzani, couldn't have done that in less than five. Since I'm the one who set up the latest security protocols, I built in something of a private . . . front door for bypassing most of them.

Above the big door, the words were spelled out on a cartoon flying carpet using a faux Arabic font, someone's cute idea: Computer Assisted Recordable Police Event Tour. A forced acronym, a backronym sure, but accurate enough except it omitted the key element. This "tour" was conducted in a semi-virtual environment using a GEV interface. GEV is yet another acronym, but its inventor expended no sweat to make it a word. God's Eye View.

Let's face it: acronyms are out of control. We need a bigger alphabet because so many of the damn things mean too many damn things.

"Should we all go in together?" Al asked Dev who turned to raise an inquiring eyebrow at me.

I nodded. "We have enough nullsuits. It'll be cramped but we'll fit. Not much to see, Al, but it'll give you a peek at the setup."

I grabbed three nullsuits. These ugly, stretchy, and pricey garments cover from scalp to shoe sole, keeping contaminants away from sensitive electronics while allowing a wearer to breathe normally, although they make me feel a bit suffocated. They include a self-cleaning system so effective that officers, in a time pinch, have been known to briefly wear one in lieu of taking a shower. More importantly, they provide an electromagnetic filter that allows the inductive GEV to function while blocking all other EM intrusion. The conductive material on the crown reminds me of a tinfoil hat worn to annoy mind readers. The GEV interface rests on this to do its thing.

I pulled up my headpiece after the sensors had recognized my left iris. I heard the massive bolts shoot back and opened the door. We squeezed into the “airlock,” pushed through wind and electrostatic filters, and reached the Holy of Holies. An array of panels brightened, revealing an ultra-ergonomic chair, a carbon fiber rack holding mainframe and server, and various electronic stalks menacing us from the curved walls and ceiling. I freed the one finger the nullsuit’s gloves allowed me to free and touched a button. I could barely feel the tiny scrape. As I tucked my finger back in, the big console rose from the floor.

“Sophisticated biometric sensor in this button, Al. Way beyond mere fingerprint. Uses a tissue sample. Anything off and no console appears. See that liquid forming on the button? Cleaning solvent. No chances taken.”

She tilted her head, which I knew meant some odd thought had come her way, but she kept it under wraps.

“Those panels in here,” I offered, “use specially designed OLED bulbs that don’t create EM interference.”

“I see. Who’s permitted to operate the device?”

I smiled. “The correct term is ‘flying.’ I’m in charge of keeping the beast honest so I have a free pass whenever no session is scheduled. I need a go-card to actually fly, but our supply officers have standing orders to issue a street-level card to me whenever. Otherwise only detectives actively working cases can fly, but they need manna from on high to get even street-level permission, and higher-level authorizations are harder to get proportional to how much privacy they’re asking to invade. Cards go into this slot here and each only works once. For street-level, there’s generally a waiting list.”

Al’s head remained tilted, and curiosity bit me. “Something special on your mind, Alyse?” From past experience, I doubted she’d be ready to talk about it, but you can’t always trust past experience.

“Perhaps.”

We waited, but she didn’t continue. Dev released an exasperated whoosh of breath. “Is it pertinent to why we’re here, Al?”

“Not sure. I hatched a troubling idea but need to keep sitting on it for now. But I have a suggestion. Jackson, perhaps you should give this system a very thorough test.”

I studied her face. “Why do I sense there’s a specific way you’d like me to do this testing?” As usual, she wasn’t just a step ahead of me, she’d already reached the next block.

She moved her head very close to mine to imply the kiss she couldn’t give me since our mouths were covered with nullsuit. “You *do* know me. Plenty of sun Tuesday, and Dev mentioned the full moon later. Concentrate on Tuesday afternoon through Wednesday morning. I suggest you locate a fixed object, perhaps a tree, in a fairly open space away from any artificial lighting. Then set the CARPET speed to where you see the shadows move slowly but noticeably.”

“And I’m looking for?”

“Anomalies. Some point or points where shadows skip backward.”

“Got you. Any glitch could mean a loop. Even brief loops could add up to enough lost time for an intruder to get in or out. I’ll check with Tony and see when CARPET will be free for long enough to run your test. Probably have to come back late and work until either the dawn cracks or I do.”

Dev nodded firmly. “Sooner the better, meu marido.”

As her loyal marido, or as I’d put it “husband,” I couldn’t argue. “Tonight then. Run it by someone upstairs, Dev, and I’ll stop before we leave and grab a card from whoever’s on duty.”

\* \* \*

Sergeant Wallace Eames, one of our four supply officers who dispense everything from bullets to battering-rams, glowered at me while handing over my go-card, which I’d signed for on three different forms. His hostility didn’t trouble me. He treated everyone badly. I’d been hoping that Magnus Erikson, my favorite supply genie, would be on duty instead. Mag had lost the use of his legs after a bullet had struck his spine. He was often in pain yet always managed to brighten my day. I liked trying to brighten his.

Eames wasn't alone. Another supply officer and our official evidence-locker dean, Justin Glass, popularly known as Just In Case, sat hunched at a desk, oddly triangular face staring down at one of his omnipresent crossword puzzles. He ignored me.

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After a late dinner, Dev and Al clearly noticed the expression of noble sacrifice on my face as I prepared to return to the station. But rather than the adoring and admiring looks I deserved, I'm sorry to report that they exchanged smirks. Shame on them, I told the universe while heading to the car.

They'd been together for eight years before we three had become friends and eventually more, and sometimes I still felt something of an interloper. Funny thing. If I hadn't been hired to do programming and initial testing on Hartford's CARPET system, I might've never met Dev, and so wouldn't have met Alyse. On such slender threads do our lives grow and intertwine.

I'd been headhunted for a reason. I have a rare talent for spatial visualization combined with a perfect if temporary photographic memory. My visual memories have a short shelf life, fuzzing out after a few minutes. But hand me the most intricate machine part and let me look it over, and I can close my eyes and mentally rotate it in any direction, seeing every detail.

This talent combo is mostly a damn nuisance. I can get overwhelmed by precisely remembering *everything* I've just seen along with what I'm currently seeing. It's like simultaneously experiencing surround vision plus X-ray vision. Example: still seeing a front door's exterior and the foyer beyond after reaching, say, the kitchen. I've learned to ignore most irrelevant input, but often need to close my eyes to regroup. I can only drive safely because I get anxious behind the wheel and anxiety makes my visual memories evaporate almost instantly.

Still, it's my rare talents that allow me to test and correct CARPET functions so quickly. By running comparisons between a benchmark flight and a new one, I can literally see the slightest errors. I've never heard of anyone else who could do the same.

As I put the go-card in its slot, my headpiece seemed to vanish, and the basic menu materialized in front of me. The console looked the same, but I was now seeing it through electronic eyes. I selected time and spatial parameters supplied by Dev, and poof . . .

I floated outside in sunlight, a size-less center of seeing and hearing, no body to weigh me down, no visible arms or legs. Didn't need them. I rose up a hundred feet and studied the streets and buildings below to get my bearings, and unlike other flyers, I had no blind spots thanks to my freak memory. The software's remapping algorithm perfected the bird's-eye view without needing drone-mounted cameras or satellite pics.

An unobtrusive see-through readout displayed real time, elapsed flight time, rate of time flow, the time when images had been recorded, an altimeter tracking my virtual position, and an expandable map. Other available features included visual enhancements such as infrared and ultraviolet translation and the only add-on I summoned: a time-rate controller.

I'd materialized about a hundred yards distant, as the crow walks, from one of the crime scenes, and a narrow slice of greenery between streets provided the isolated tree Al had suggested. I descended to hover above the tree's shadow and increased the time flow until I saw the shadow creeping. I tried to keep my attention focused right there, but my mind, along with my current point of view, kept drifting. A thought kept pestering. Could I automate this damn search so that I could go home and get some sleep?

So, after a few real hours, I almost missed it. The sun had retired; the moon noticeably crawling up the sky. I'd just increased brilliance setting to see better and braced myself for more boredom to come when I noticed something odd. Nothing to do with the steady-as-she-goes shadow, now cast by moonlight. But I noticed a shimmer in the direction of the murder scene as if for an instant, a thin film of water had obscured the view.

I rolled back time by a minute and flew to the home in question. Close up, I saw no distortion when the minute elapsed, but when I returned to my previous position and backed up by the same minute, there it was again. No wonder Dev hadn't seen this when she'd run her CARPET survey.

A truly chilling revelation. My virtual body couldn't shiver, and I couldn't feel my real body,

but I hoped it had the sense to shiver on my behalf.

The system *had* been hacked. What kind of hack would only show up at a distance? I could only think of one possibility, an ugly one.

To check my theory, I moved away from the home again, sped up time twofold, and kept watching the house. An hour passed. Another shimmer, just as I'd feared. I skipped three hours and two miles of geography to run an identical search at the second crime scene. I found the same distortion, again twice, only visible at a distance.

Wally Eames glowered at me as I returned the go-card, but this time he had reason. Each card only works once, until it's reactivated, and each *must* be returned to a supply officer directly after use. Rules. By night-flying CARPET, I'd forced a supply officer to join my night vigil, and Wally had drawn the proverbial short straw.

\* \* \*

"Time differential?" Al murmured to me in the darkness.

I'd tried to sneak into bed without waking anyone, but even a ninja couldn't sneak past these two.

"Has to be. What else could produce that effect?"

"Tell me again why Alyse's idea flopped," Dev ordered.

"The doer didn't loop the feeds but altered them in a way that I didn't think possible." I'd have said the same about gassing families without setting off alarms.

"Keep explaining, but slower this time."

"Your wish is my etcetera. Videos are captured at thirty-two frames a second, the practical speed limit for current memory storage considering how many recorders run day and night."

Dev's nightgown rustled. "Downtown Hartford alone runs two thousand."

"Exactly. When you fly, CARPET combines and plays back live or recorded feeds from anywhere within its assigned territory—given available vid-cams. That's why you can seamlessly fly anywhere in real time or use CARPET as a snooping time machine. I figure our murderer somehow slowed the feeds from the cameras covering the victims' homes for just long enough to get inside, moving between frames as it were."

"Why not just stop the cameras?" Al asked.

"Two separate systems watch for any dropouts. It's that important to know when a camera's gone offline. Hacking both would be a whole other level of impossible."

"É verdade," Dev confirmed. "But, Jack, why didn't I see that flicker you saw when I ran my own sequences? How fast could our doer possibly enter the house?"

I smiled and thanked the dark for hiding that particular smile. "Right there. A blazing red flag. Seems our hacker, God knows how, added a program glitch to hide any, uh, frame-rate changes from a CARPET observer close to the murder scenes. Probably filled in the empty frames with cloned images. Interpolation. So the murderer could've strolled into the house, no great rush."

"But the interpolation wasn't perfect," Al offered.

"Yeah. Not even our homicidal genius could get a perfect time match with more distant feeds. From a distance a little wobble shows up, but as you get closer the frames run silky smooth. Dearly beloveds, we got a problem. Far as I know, these things can't be done. Conclusion: someone knows how to do things that can't be done. The only positive is that we can scratch off anyone who's ever worked IT at headquarters since I got hired. We've had IT specialists come and go. None of them have the juice to pull this off. I'm sure."

\* \* \*

Sunday in our household is our official day to relax. Instead, we held a long and unproductive War Council and then settled down to worrying the afternoon away. My wives skipped their beloved twilight run. I kept myself semi-awake with caffeine but could've passed for a zombie.

So we were home, bathed in sunset through our living room window, when Dev's com implant signaled. Another family gassed, a triple like us, but with two husbands, one wife, and three children, one adopted from China. Dev was devastated. She took murders connected with murders she was already investigating extra hard. And we all took dead children *very* personally. We hoped to have children ourselves before long.



These murders had taken place on the outskirts of East Hartford, beyond Dev's jurisdiction so we wouldn't be welcome at the crime scene. Still, she would've gone anyway if Al weren't so convincing. Alyse could sell Moon dust to the Moon. Video recorders become progressively sparser as population density thins, which likely meant no useful CARPET data. But we knew what a flight review would've shown.

We sat huddled on the living room couch, bookending Dev who kept herself in what I thought of as her "vulture posture," hunched up with raised shoulders. I held one of her hands, cold and usually so warm. Al, doing some thinking out loud, held the other.

"One general problem I've observed is that when our tools reach a certain level of sophistication, we tend to become dependent on them." Her voice stayed gentle and affectionate despite the intellectual content.

"What are you getting at?" Dev asked, more irritated than interested.

"CARPET is such a powerful instrument that it is easy to forget the potential benefit of using others."

"Such as?"

"Looking for some connection between the three murdered families."

Dev pulled her hands free and turned toward Al, but I could practically see Dev's glare from behind. "Porra! Don't you think we've done that already?"

Al threw her magic waters on the fire. "Of course you have."

Poof. Tension gone. "No connection."

"None you found. But how much energy went into that part of the investigation?"

The gentle tone of the question and Al's smile combined to keep Dev mildly sedated. I have no idea how my genius wife does this although she's used it on me plenty. In entertainment media, the ultra-smart are almost always portrayed as socially inept and amusingly neurotic. If anything, Alyse is *too* socially competent. When she decides to manipulate you, good luck trying to avoid getting manipulated.

"Perhaps," Dev admitted, "you make a point."

"Let's assume the killer had a reason to target those particular families. Wouldn't you think the connection most likely lies in the past, even the distant past, rather than the present?"

"Alyse, even if so, we don't have the time or resources to run such a detailed investigation."

On a hunch, I leaned out to get a better look at Al's face and found her gazing straight at me.

"Got an idea, don't you?" I said. "And it involves me."

"It's as if we share a single mind, love." Right. My part is that little lump toward one side. But no sense in trying to hold back the tide. . . .

"What do you want me to do?"

"I understand that CARPET is designed to merge digital video feeds. I'm wondering if it could be used to merge raw data streams."

The concept absolutely floored me.

"That's . . . quite an idea," I understated. "Never heard of anyone trying that, but yeah, might be feasible. I'd need to program a link between the—good lord, to do this right I'll need *massive* permissions."

"What are you two talking of?" Dev complained. "Tell me."

Somehow, without a word or visible shift in expression, Al invited me to answer.

I tried to fake assurance. "If I can program CARPET to overlay all NGI files concerning the three murdered families, any connections between families might, um, show up." Big if. I had a vague idea how to assemble a triple overlay, but no clue how I could separate out any relevant intersections in the torrent of data.

"The NGI is the FBI's database?" Al asked.

"For now. It's getting upgraded into a global version. But the current one has the whole nine hundred yards: facial recognition and biometrics and bank records and whatnot, but mostly limited to North America."

Dev nodded briskly. "Why massive permissions, Jack?"

"The connections could be through other parties. So I'll need more than records on just those

families. Potentially, a lot more.”

“Would this allow an investigator access to *everything* in these records?”

“Possibly, but we might not need to go all that granular. Besides, it wouldn’t be practical to sort through every damn detail. I could start by limiting the data stream to places lived, jobs held, personnel in those jobs, friends and relatives. Hmm . . . also schools attended.”

Dev mulled before speaking. “On that basis, I’d say we can get you authorized.”

Al had a question. “Speaking of authorization, Devorah, you said you’d gotten top level permissions for your initial investigation into the deaths?”

“Sim. Easy as pulling a jaguar’s teeth. Not a sedated one.”

“So you checked *inside* those homes at the time the murders happened.”

“Com certeza. I saw no one sabotage nada, no one touch control panels, but even CARPET’s infrared can’t pick up much in unlit basements. Why do you ask?”

“Just an idea I had involving HOSTs. I’ll tell you both about it later after I run a few experiments.”

Street-level CARPET permissions allow the operator to view everything happening, well, on the street, plus the exteriors of structures, using any necessary visual enhancements. The next level adds considerable infrared sensitivity to image people inside buildings. At the next level, only when working in real time, laser reflections off windows and walls can be used to interpret the minute surface deformations caused by noises within buildings, an eavesdropper’s delight.

Full authorization grants the operator access to a home’s HOST and its files, unrestricted invasion of privacy. Perfect for voyeurs in both sight and sound. Most HOSTs even monitor their owners in the bathroom in case of emergency although the systems are legally required to include exemption options for specific areas of a home. At Dev’s insistence, Jeeves has blinders and earplugs in our bathrooms, but we’ll probably forego modesty after and if a baby joins us.

Al stood up and headed toward the kitchen. “Anyone care for tea?”

“Good idea,” I said, and Dev agreed but without enthusiasm.

I joined Al in the kitchen, waiting until she’d put the kettle on before I asked, “Yesterday in the CARPET room, you said that you’d, um, hatched an idea. Ready to talk about it?”

“I am. Assuming the killer gained access to your police records, they’d have access to every officer’s fingerprint scan and DNA profiles. Is it possible to print up human tissue from a DNA profile or actual DNA capable of fooling that fancy biometric sensor you seemed proud of? Black tea, white, or green, dear?”

“Which would go best with booze?”

\* \* \*

I crashed that night more than slept and woke up, still exhausted, to the lonely sound of Jeeves’s hawk impression, our latest workday alarm. But duty called, or rather nudged with feminine elbows, until I forced myself out of bed and fetched the much-needed brew.

“Jeeves,” I croaked. “We must make a robot body for you so that we can sleep in and you can bring the java.”

“Very good, sir.”

“It would be.”

Then I got so involved in my head, figuring out how to implement Al’s data mining suggestion, that I don’t remember delivering the coffee or drinking it. Or breakfast or showering. The women let me muse and talked quietly to each other, ignoring my mumbles of “Well, that won’t work.” By the time Dev and I got in our blue sedan after Al had glided off in our smaller car, I realized that the problem had too many facets to solve within a decade or two, but I didn’t have to solve it.

Dev took the helm, driving too fast while clutching the wheel hard enough to whiten her knuckles. Now out of my shell, it seemed a good idea to distract her before rather than after an accident.

“I have a plan,” I murmured, trying to emulate Al’s snake-charming tone.

“Sim? Tell me.”

“CARPET carries audio, but it’s more a visual tool. The GEV streams visual data directly into

the optical interpretive areas of the brain rather than through the optic nerve.”

“Does it? What of it?”

“Get me authorization to run NGI files through CARPET’s mainframe.”

“You are joking?”

“No. But I only need permission to fully open the files for the three murdered families. See? By streaming the raw data into CARPET, the software could convert it into visual data and feed it into the operator’s brain. Can’t imagine what this would look like, but by—”

“Any connections would appear?”

I hedged my bets. “They should.”

“You are unsure.”

“Won’t stop me from trying.”

“Then yours should be the brain to be fed, *meu marido*. Who else has your talent with memory?”

I hadn’t considered that detail and didn’t care for the notion. I’ve never put “guinea pig” on my résumé. But she had a point, and I didn’t argue. She slowed to a mere breakneck pace, but now I had a new reason to be tense.

Headquarters was extra busy, typical for Mondays, and I went to the desk sergeant to ferret out any recent IT disasters the department had suffered.

Only the usual handful, but nothing that power cycling didn’t cure. The hard part was escaping from people who much preferred chatting to actual work. More nervousness set in as I worried about everything that could go wrong in the kind of experiment I envisioned. Trouble was that I had no idea what could go wrong, which kept spinning my mental wheels uselessly.

Speaking of wheels, to get some in motion while I solved arcane technical problems by pushing a button twice, Dev met with Captain Josephs, and they both met with Police Chief Lorenzani after dragging Tony Cortez in their wake. A seven-way meeting got scheduled for late afternoon with all of the above and the biggest police kahuna, Commissioner Gordon Coleman, plus one FBI and one DHS honcho.

Dev and I had lunch together, not using any of the “dining” options within Headquarters, but within walking distance. We didn’t eat much. When we returned, it was my turn to get sucked into the maelstrom.

I wound up outlining my plan to four ad hoc committees in four different parts of the building. Got rather slick at it. Then I was added as an eighth member to the combined meeting at 4:30 P.M. Despite Coleman and the government honchos attending via video, Lorenzani’s office was crowded and a bit ripe. Took over an hour to get my basic go-ahead, but we needed permissions from even higher up the food-chain including a judge-issued federal warrant before I could actually set things up.

If it weren’t for the potential for more murders, all this could’ve dragged on for weeks. And if the FBI and the Department of Homeland Security weren’t gradually fusing into a combined National Security Bureau, the red tape might’ve stretched until it broke.

Still, three days and nights elapsed before the final authorizations came through, and even Al-yse, usually an emotional lifeline, seemed troubled and withdrawn as we waited. She wasn’t home much and kept commuting up to her old M.I.T. stomping grounds to run tests of some sort. She wouldn’t specify which sort. Apparently, her local stomping grounds, Rensselaer, lacked some required equipment.

I spent my free time working out programming details, working out at the gym, and working out at the piano, playing the kind of upbeat jazz that never moves my soul but allows lots of walking bass line practice. I finished the coding Wednesday night but had no way to test it. Dev, not the most patient of humans, was the kind of bear you’d best avoid if you enjoy having a throat. None of us had a trace of libido, and none of us slept worth a damn.

On the bright side, no new murders.

Friday morning, I got the all-clear. At work, I paced outside the CARPET room while a detective finished his pre-scheduled flight, after which I threw on a nullsuit and shoved my shiny new code down the CARPET mainframe’s gullet, wishing like hell I wasn’t up for test pilot duty.

Then I resumed pacing outside the room, waiting for the crowd to arrive.

You'd think the operation involved nuclear launch codes. Our improvised protocol required three people. One to allow me access to the NGI, and then to monitor that access should I exceed my permissions; one to monitor CARPET firewalls while the extra ports I needed to handle the extreme data load were open, and me. On top of that, four armed guards stationed themselves outside the CARPET room at DHS insistence to pile more icing on the security cake. Don't ask me why. You can't guard against system exploits with bullets. Last to the party came emergency medical personnel and equipment including a stretcher. No one had tried this stunt before, and brain injury wasn't impossible. I felt like a true pioneer: scared as hell.

While everyone else was setting things up, I had plenty of time to imagine failure. No doubt the NGI had the relevant information, but could I really find it this way? NGI stands for Next Generation Identification, with "generation" referring to upgrade level. The title has outlived its meaning. The data mine seriously deepened way back in 2015, and by 2025 held detailed info on virtually every North American and probably their pets.

I frowned at my go-card. Magnus Erikson had supplied this one, which came with the no-lee-way time limit a federal judge had demanded. Even Mag's easy grin didn't soothe my nerves. I had precisely two hours to find a link between victims. Not a second more. If I failed and it still seemed worth a try, we'd have to go through the entire approval process again and might not get it. Not everyone, including the judge, had thought this plan a wonderful idea.

The head medic got around to checking my vitals and then felt a yearning to stick some biometric telemetry on me. I had to explain the facts of life and physics concerning nullsuits before she gave up. The time had come.

\* \* \*

Once in the pilot seat, temporary extra ports in place, console raised, I slipped go-card into slot, but it took triple the usual time for the GEV to come online.

Then it did.

Holy *FANTASTIC!* Beauty beyond belief!

But . . . what the hell was I seeing? After a confused minute, my brain had a serious talk with my eyes, and I began to pick out countless narrow bands of colored movement. They resembled luminous rivers seen from high above.

Even then, I had trouble focusing on individual rivers because they were everywhere, like molten pastels in a thousand colors, flowing, sparkling gently. Rivers behind rivers between rivers below rivers, some flowing in parallel, others with occasional or frequent connections. Each one started at some definite point, attached to another river, and many terminated suddenly. Countless occlusions, but everything remained visible including, I belatedly noticed, a tiny virtual menu. I activated the labeling function and voila!

The rivers were human lives. Each sparkle represented a time-stamped financial event, perhaps paying a bill or having a deposit appear in a bank account. Tint and shade variations within each river, sub-streams, symbolized medical and physical information, political affiliations, employment history, education and test scores, marital history, sexual and gender orientation, location history, and more, all modified appropriately as the river flowed along.

This felt like a true god's eye view, a meta-time where I perceived entire lifetimes all at once.

Now that I had my bearings, sort of, I looked all around me. If my targeting filter had worked . . . yes! There they were: three groups of rivers larger and more intensely colored than the rest. All rivers within each group ended simultaneously. If I hadn't bungled the coding, these groups were my three dead families.

Using the menu's toolbox, I expanded one family record until it filled my visual field. The labels identified two husbands, a wife, and three kids. Right! The most recently murdered family. Further expanding one husband's river, detailed labeling appeared. How about that! The color and brightness of individual sparkles depended on the amount of money involved in that specific transaction. Gold meant deposit, silver withdrawal. I now had access to this man's entire financials, but I backed off to investigate the other significant groups.

Group two turned out to be the Bennett family, the first to be murdered. When I zoomed in

on the parents, I noticed a series of largish silver sparkles and two particularly bright golden sparkles in one of the husband's accounts. I called up these specific records, and the magical scene got hidden behind the prosaic image of two online monthly bank reports. The name on the account was Clyde Bennett.

A deeper dive showed the Bennetts in financial trouble because baby Jamie had developed spinal muscular atrophy, and even with insurance, treatment would soon bankrupt the family.

But on the fifteenth of August and then again in September, a \$50,000 deposit had mysterious appeared in Clyde Bennet's bank account. A network-savvy and generous anonymous donor? I doubted that because Clyde and his family had died on the fourteenth of October. Assuming another fifty grand was due the next day, this pointed strongly in one direction.

I wasted the next half hour trying to determine the source of those funds. They'd been drawn from two separate and now closed-out accounts registered to two nonexistent companies. The NGI offered no electronic or paper trail to follow, and I had to give up.

Then I began doing what I came here to do: looking for connections between the three families. Not easy even with the GEV revealing places where those rivers of life touched. They'd all lived in Hartford County but in different school districts. It wasn't surprising that members would go, for example, shopping at the same store at the same time now and then. But I found no hint that any family member knew any member of another family. On two occasions, members had stopped at the same Zip-Charge station within minutes of each other, which proved nothing. The only common thread I found is that of the adults involved, five were or had been software developers.

Tracing the patterns backward through time was taking too long, and my permit was running out. On a hunch, I began hunting from further back, focusing on the parents, starting from when they were teenagers. I was sweating despite the filtered breeze from the room's shielded vents.

Four minutes until my two hours was up I hit the jackpot. Husbands in the first two murdered families and the wife of the third had belonged to a quartet of "crackers," as they were once called, software pirates who would remove copy protection from software and then sell or give away the "cracked" version. The four young pirates, who'd met in online chatrooms, had been arrested and released without any prison time, but with community obligations and a stern warning. Details had been sealed due to juvenile-protection laws, but the NGI scoffed at such seals, allowing me to retrieve the full story.

Here, I ran into a snag. The fourth and youngest cracker, and the actual ringleader, was a bright lad with the unwieldy name Horatio Winchester Castelletta. His river was marked "tangential," which in FBI/DHS terms meant someone involved with the unfortunates I had permission to investigate, but not someone I was allowed to investigate. I could learn no more about Castelletta than his name. The NGI wouldn't even let me call up pictures of him, which seemed small-minded. His river, unlike any other I'd seen, faded out rather than ending sharply. Lack of data, I guessed. Then my time elapsed, and I found myself in the CARPET room, bearing a golden cup of triumph.

The party broke up rapidly. I thought the security officers seemed depressed that they hadn't had a chance to shoot anyone. I got my blood pressure, pupils, lungs, and heart checked before the medics conceded that I might not be any worse for wear.

Dev, along with both Captain and Chief, awaited me in the central lobby, but only Dev looked at me anxiously and gave me a hug. I grinned and she seemed reassured. Meanwhile Captain Josephs demanded a report on the spot, which I supplied despite feeling woozy. The way Dev looked at me after I'd finished blabbing warmed me to the core.

"So you think this Castelletta is the doer?" Josephs asked me.

"The most likely suspect." The only suspect so far.

"And his motive?"

I shrugged uncomfortably. "I don't want to jump to conclusions, Captain."

Big frown. "Spit it out."

"We now know he had been involved in, um, small-scale cybercrime with someone from

each of the dead families. Also, I told you about the whopping expenses and unexplained deposits in Clyde Bennett's bank account. So I'm guessing Bennett was blackmailing his old friend. I have no idea how Castelletta came up with that much money."

Dev and Josephs looked thoughtful but Chief Lorenzani grabbed the reins. "According to your statement, Monroe, none of the victims have been in contact with Castelletta or each other for decades."

"We can't be sure. I didn't have NGI cred to investigate Castelletta, and his . . . trail vanished after his crew got busted. I suspect an identity change. But I figure Clyde Bennett must've bumped into him, maybe early in August, before that first deposit came in."

"Even if Bennett recognized him, what leverage could he have for blackmail?"

"I couldn't say."

Grunt of reluctant acceptance. "I'll expect a full written report on my desk tomorrow morning."

Figures. "Yes, sir."

The boss class strode off to their respective lairs, and Dev gave my hand a squeeze before she returned to work. I headed upstairs to return the go-card to Supply, Evidence, and Procurements.

Sergeants Eames and Glass were there, Just In Case doing a crossword. As I handed Eames the card, my good mood foolishly impelled me to attempt a little friendliness.

"Thanks, Wally. This flight paid off."

Eames only grunted, but Glass looked up from his latest crossword challenge. "Hey, IT nerd, what's a four-letter word for Microsoft system failure?"

Before I could even absorb the question, Eames answered.

"BSOD. Blue Screen Of Death. Doesn't happen anymore."

I may have staggered a bit while departing. Apparently, I'd stepped into some alternate reality where Glass asked for help on a puzzle and Eames would voluntarily offer anyone assistance.

The FBI proved unusually cooperative and speedy, and before Dev and I had left work, the police had Castelletta's file and assorted pictures of Horatio himself, but not one beyond toddler stage. His post-baby face was white generic but modern cosmetic technology meant he could look like a Samoan woman for all we knew. He'd ghosted himself, erased his original identity, and with incredible skill. A damn shame I'd hadn't been allowed to investigate his teenaged self with NGI data, but even there, I suspected nothing would've showed up.

\* \* \*

Another Saturday shot. Dev and I drove back to Headquarters while Al stayed home, grading student papers. She planned to head out to M.I.T. later, and her warmth had returned so it seemed her experiments were going well. Al had also consulted an expert on the possibility of 3D printing sufficiently accurate skin tissue from a DNA sample or profile. The answer was a bold probably not.

The Authorization Angel had come in the night, and the normal NGI search engine had become available to Dev, as the case's lead detective, and to me as her pet assistant. Without the privacy issues of CARPET involvement, tangentials were no longer off limits so long as we kept searches focused on Castelletta and the victims. Relevant juvenile records had been legally unsealed, and the FBI had even opened a red carpet portal to those files. Dev went to her desk to begin poking around, and I went downstairs to my modest office to do my own poking using my personal work roll-out. I rate police-issued computers "crap minus."

Midmorning, I got a call from Beth Kaplan, weekend Operations Officer, to inform me that I'd be getting a celebrity visitor before noon. I thanked Beth for the heads-up, trying to sound cool about the news, and scurried over to Supplies to borrow a handheld vacuum cleaner. Mary Badaleaux was on duty with Just In Case, mental nose in what I guessed was a Sudoku, demonstrating how not to keep someone company. Mary lacked Magnus Erikson's charm, but compared to Wally Eames, she seemed warm enough to melt rocks.

The arriving celebrity was Zephyr Fields, a specialist detective and media consultant on cybercrime, regarded as a goddess by cybercrime investigators. Commissioner Coleman himself

had called Boston's Chief of Police and asked if we might borrow a cup of sugar and the services of Ms. Fields for a time. Everyone involved proved amenable.

Most techs, upon learning a VIP was due would start hurling empty wrappers and the like into bins. But despite certain lies a certain pair of women might put forth, I am the soul of clean and tidy . . . in my workspace, at least. Aside from quick vacuuming, all my cleanup energies went to my desktop screen. I couldn't have Ms. Fields thinking me sloppy.

I saved and closed everything except for "Halloween Surprise," a program of mine ready for compiling days ago, but still uncompiled because I'd been too busy to test for bugs. I'd written Surprise to prank Dev come the 31st, but now that I'd learned first-hand what Dev had to deal with, I thought the idea of scaring her sucked pickled eggs. Still, it went against my grain to erase the program before seeing if my coding worked. So I activated compiling and minimized the activity window. The job wouldn't take long, but I saw no harm in letting an extra app lurk, if necessary, in my taskbar during Fields's stay.

The legend herself materialized mere seconds later, ten minutes early, one hand gripping a large carrying case, the other held out for shaking purposes.

"Mr. Monroe, I take it?" she asked with a Boston accent plus a trace of Southwest twang. What she took was my hand.

"Just Jack, please."

"I'm Zephyr."

She had a striking face, dark and angular with big hazel eyes that reminded me of Dev's, and was thin and tall, taller than she looked, because she kept her head jutting forward and had the kyphotic posture typical of those who sit all day, staring at screens. I thought she might have a few years on me but couldn't be sure.

After relatively normal geeky small talk she said, "Got another chair?"

She had a pleasant scent, a fresh touch of citrus.

"Sure do," I said heading to the room's storage closet and rolling out a second Axion, both chairs paid for by me—one to keep my back happy and the other to keep my most frequent visitor, Dev, from getting jealous. "I planned to have it ready for you, but—"

She grinned. "I've arrived prematurely since birth."

I laughed and pushed the Axion her way invitingly.

"Fancy. Quite comfortable, thank you. I see you've got two roll-outs set up and neither look like toys. Great, I won't bother unpacking mine."

I kept the second computer for Dev's use when she needed to operate online without any Internal Affairs officer able to cyber-spy on her. "Sometimes it's helpful to work in tandem with another IT tech," I semi-lied.

"We'll be doing just that. First, brief me on the situation. Pour it on thick."

The "briefing" took me a solid ten minutes because she kept having me backtrack to go over details such as Al's tissue-cloning idea.

"You come up with using CARPET for this overview yourself?" she asked when I'd run dry of things to pour.

I got a little tempted to take full credit because it would've felt nice to shine in her eyes. "No. I'm married to two women, both smarter than me, but one's a certified genius: Professor Alyse Guillory. Guess who had the idea."

"Righteous choice in partners, then. But hun, that stunt shouldn't have worked."

"Why not?"

"Even with a narrowed search, you'd get far too much information to handle. The human brain ain't built for it."

"Seems mine is." I turned to boot up the second computer, unfurling its screen a bit more to make both monitors match in size, then I assigned a separate NGI feed to the computer she'd be using. All my flailing around in the files had accomplished nothing, and now I learned the difference a specialist could make.

"If you say so. But you're off about a few things," she said kindly enough.

"Such as?"

“Let’s see if I’ve got the picture. You figure Horatio C. was blackmailed by this Bennett dude from a cracker group Castelletta had once led.”

“Right.”

“Then C. decided to get clear by killing all his former buddies?”

“Seems to make the most sense.”

“So he broke into those peoples’ homes after hacking the local video feeds to hide the breaks, rigged the backup heating systems to gas everyone inside, hacked the homes’ HOSTs, and—my favorite part!—remotely hacked your CARPET system to hide his other hacks. Remotely!” A hint of smile widened her lips.

A worm of unease uncoiled in my stomach. “Pretty much. An expert threw, um, coldish water on my wife’s tissue-cloning idea. Without a tissue sample, no console. Without a console, I don’t see any way to edit the server.”

“Hon, then Horatio’s the sort of super-cybercriminal you watch on a big screen or VR with a bag of popcorn handy.”

“Not so realistic?”

The way she talked reminded me of AI, not in tone or word choices but in the complex organization. Another human beyond my intellectual league.

She chuckled. “Let’s reconfigure. I know CARPET systems. They’re not common, but we have one in Boston. You told me *you* couldn’t hack one remotely, so you imagined up some . . . hacker mastermind. Trust me, it can’t be done. CARPETs are used not only to solve crimes but for gathering evidence to use *in court*. Understand? They have safeguards on their safeguards, some you never heard of at BIOS level. And talk about thick firewalls!”

I wasn’t convinced but didn’t interrupt.

“Then we reach something almost as impossible: hacking a HOST. HOST security’s gotten so beefed up that even . . . resurrected Steve Jobs would go nuts trying to diddle the alarm functions of his *personal* HOST.”

“Then how—”

“Sit tight. I’ll get there. Video-cams can be hacked, I’ll give you that. But they have special safeguards to prevent loops. I think using the CARPET server is the only practical way to mess with the feeds. As to hacking NGI files, no way. For ten, eleven years now, I doubt even your fantasy mastermind could break into any major database from outside. Those bastards be *sealed*.”

“What about fifteen years ago?”

“There you go! That’s our in. Fifteen years back, Thundercloud tech hadn’t been implemented and couldn’t have been used because data crawled along a thousand times slower than today.”

“Okay. How does that help?”

A flash of largish very white teeth. “Think. With Thundercloud, personal files are . . . atomized, pieces scattered among globally-networked computers, packets routed wherever it’s most convenient. All changes happen globally almost instantly. But in days of yore, federal databanks preserved complete records and full backups on individual computers, a *lot* of computers. Ye old timey Cloudy storage. Get the pic?”

“Beginning to. Yeah. Might be unaltered backups somewhere. Any of those older units still active?”

Another grin. “Good news: many were integrated into Thundercloud with legacy data preserved in isolated partitions. Brilliant foresight for situations like this? Ha! Just usual government inefficiency.”

“Okay,” I said. “So if our killer changed his identity way back when, and we can magically call up isolated legacy data, we might be able to—no. That big a search could take forever.”

“Sure, if I didn’t carry an ace up my sleeve.”

She didn’t have a sleeve but pulled a Samsung mini drive from a pocket and plugged it into a hyper-port. An army of prompts appeared on her screen.

“Search program?” I asked.

“Comparison analyzer specifically geared to identity-shift.” She made a pleased sort of grunt.



“With preauthorized access to—wait for it!—legacy files. Got those magic keys late last night after waking up two bigwigs. I’ve used this ’ware with good results. Settings need to be tweaked for each job.”

I nodded, impressed. “Must help to have your reputation.”

Warm chuckle. “Good to be the queen.”

With a soft “Olá,” Dev strode into my office, which meant it was lunchtime. I made introductions, gave my wife a progress report, and begged off from our lunch date.

“I could get take-out and bring it back here,” she volunteered.

Nothing but aye votes, and Dev departed after taking food orders.

I got right back to it. “Let me guess. You’ll limit the search to when Horatio vanished from view.”

“We can do better than that, hun. Much.” Her eyes sparkled, but maybe with a hint of caution. “Let’s ask some thorny questions. If a HOST’s fundamental programming can’t be hacked, what could prevent one from sounding danger alarms if it detects CO?”

It dawned on me that the question wasn’t rhetorical. “I suppose having the HOST or its detectors disabled.”

Somehow she beamed approval while her face stayed somber. “Exactly. Now the thorns get sharp enough to draw blood. How could anyone delete a HOST’s memory of being disabled, or of someone disabling the detectors?”

I tried not to look as stupid as I felt. “I’m . . . not sure. I suppose an EMP blast could do it, but I tested the HOSTs. Would’ve found damage from a strong enough pulse.”

“Indeed, so how could someone remotely disable a HOST or break into a home without HOST permission and without leaving a physical or electronic trace of a break in?”

I chewed on all that and wound up with an ugly, ugly taste. “Emergency override.” Stunningly obvious now that she’d led me to it.

“So your beautiful wife didn’t marry a dummy?”

Just one. “Dev’s going to *bate* this.”

Police departments alone—ignoring rumors that certain government agencies could do likewise—have the authority to send override commands to home HOSTs in emergencies. If a big fire erupts too fiercely to be squelched by a HOST-controlled extinguishing system, even firefighters need police override, obviously requested en route, to enter the burning house unless they yearn to break doors and be deafened by alarms.

In fact, “dummy” fit me perfectly for not considering override protocol, but in my defense, the lapse makes sense. I’m on the *inside* when it comes to the Department, and despite some petty friction, regard the officers here as my comrades, all of us working in a common cause. The doer in this case lurked at the intersection of Mass Murderer and Serial Killer streets, and the notion that this monster wore a badge wasn’t just repugnant, it had been unthinkable for me. Until now.

“*Really bent cop*,” I muttered. “Great.”

“I’m afraid so. Then most difficulties vanish. Your doer doesn’t need to scam their way into this building to reach your CARPET lair, the faulty HOSTs could’ve been shut down *after* opening doors, and HOST records of the shutdown expunged. Only one big problem remains: how the doer diddle NGI data.”

“Only one? What about how I’m the CARPET specialist here, and even I have no idea how to . . . diddle video feed timestreams?”

“Simple: you ain’t top CARPET guru here.”

Damn! She had to be right. “Yeah.”

“Any other IT savants around?”

“Um. Not really. I suppose Mary Badaleaux, our firearms instructor and part-time supply officer, comes closest. She helps with minor IT issues sometimes. We call her ‘Battleaxe,’ and she looks tough as one but is really quite sweet. There’s no way she could be Castelletta.”

“Don’t be so sure. She could’ve edited records. Or transitioned to female.”

“I guess. Talk about blind spots. Christ! I might’ve worked with Horatio Castelletta for

months.”

“You probably have. But this sure simplifies our search.”

I made an effort not to snap at her. The idea of Battleaxe being a killer really upset me. “True. But I’ve got my own questions.”

“List ‘em,” she suggested, turning to her keyboard, answering prompts and selecting options.

I talked to her profile. “I’ve been digging into NGI files all morning before you got here, and I don’t see why it would be so hard to make changes.”

“Aha! You think the FBI has granted us an open door to their data bank? Right this moment, hon, I guarantee that sharp-eyed folks are monitoring everything we do on these computers, each keystroke, and probably watching and listening to us as well.”

I’d taken precautions to keep spies from secretly activating the video cameras facing us or the built-in microphones, but that didn’t stop me from suddenly feeling a bit naked.

She gave me a quick arm-pat. “Give me a minute to set parameters, Jackson, and then we’ll look at your other questions.”

I nodded, and she resumed working, typing no faster than me, but her progress seemed smoother despite her throwing in some on-the-fly coding. Twenty minutes later, she finished. By then Dev had returned bearing food. Zephyr thanked her, asked what she owed, and was informed that her money was no good here. I sallied forth to fetch a third chair. My office had gotten crowded. And savory.

“Either of you mind if I stay and watch?” Dev asked between munches, despite the fact that her professional status meant that I couldn’t say no.

Please do, we both said in different ways, but I was the only one chewing at the time.

\* \* \*

Post lunch, I filled Dev in on the bad news, and she took it better than I’d expected, because she’d realized a cop was the only likely doer last night. My wives had conferred during Dev’s lunch-gathering expedition, and of course Al had figured it out already but hadn’t wanted to distress Dev, expecting Dev to reach that sad conclusion on her own.

Al had mentioned that she’d nearly proved a theory of hers, but until full results were in, she’d continue to emulate a clam. As I’ve often said, both wives brighter than me. Pity that smarts aren’t contagious.

Zephyr requested the names of personnel who could be granted entrée to CARPET, and a good thing that Dev was with us, because I had no access to personnel files. The list proved lengthy. Virtually every detective in Connecticut had to be included, although operations were mostly reserved for major crimes.

I forwarded the list to Zephyr who merged the data into her search software and put it to work looking for discrepancies between Thundercloud legacy files and police personnel files.

“Nice,” I said. “That should do it.”

“It didn’t,” the cyber-detective sighed almost before I finished my sentence. “Zero results. Of course, this only skimmed the surface. But someone *really* covered their tracks or we’re barking up the wrong dog. What’s our time pressure, Detective?”

Dev looked as grim as I’d ever seen her. “The killer took out everyone in his . . . old crime club, yes. But we don’t know if anyone else would recognize him from those days. After being blackmailed, he might want to—as Jack would say—nail that door shut.”

Zephyr nodded. “Serious time pressure then. So we have a problem. I can set my app to look for irregularities at a really deep level, file by file, but the search might take weeks, and we’ll need everyone’s complete records.”

“I can get those,” Dev offered.

“Good.” Zephyr tilted her head as if listening to distant music. She didn’t seem to be enjoying it. “Let’s come at this from another direction. Jack, I know how we do it in Boston, but detail the process here of getting to fly CARPET.”

“Three hoops to jump through,” I said. “First, you ask the operations officer for a slot, either Tony Cortez or Beth Kaplan depending. The Double-O then reaches out to Captain Josephs, or more typically his secretary, and asks for the blessing. If Josephs grants your supplication, word

comes down to one of our four supply officers, who then issue an appropriate go-card.”

“Who programs the cards?”

“My custom software handles the actual programming. Whoever’s on duty only has to fumble the card into the right slot.”

“Can anyone aside from your supply crew program the cards?”

“No. Retinal scan security.”

The women exchanged looks I couldn’t read, which meant I’d missed something. Dev’s shoulders rose an inch or two, a bad sign for sure.

Our borrowed expert stared into outer space despite the wall three feet from her nose.

“Tell her,” Dev suggested, “about CARPET security.”

Boston’s system was older and perhaps used different protective methods, and Zephyr didn’t object, so I went through the process from nullsuit to DNA sample.

Zephyr’s eyes narrowed. “That’s what worried me when you told me about your wife’s tissue-printing idea: the tissue sample is the real security measure. Who replaces the fluid that melts it?”

“Oh. Right.” Mr. Slow-on-the-uptake had finally up-taked. “One of the property officers.” If someone replaced the acid with water, retrieving the sample would only take tweezers. . . .

“Let’s try to connect Castelletta with one of the four. Can you narrow our suspects down, either of you? Even with only four, a deep search could take days. Names?”

“Four sergeants. Wallace Eames heads the crew,” I began. Hard not to add “a piece of work.” “There’s Magnus Erikson, Justin Glass who’s also chief evidence manager, and that part-timer I mentioned, Mary Badaleaux. All about the right age.”

“Progress!”

“Mary switched sexes,” Dev explained. “We can’t rule her out.”

“She never told me,” I said, surprised.

“Unlike you,” my dear wife said, “I’m easy to confide in.”

Zephyr chuckled. “I considered that possibility. Thank you for the information, Detective. Yet if she’d been Castelletta, would his old amigos have recognized her?”

“Hard to be sure,” I said. “Maybe the recognition wasn’t, um, visual. But we can scratch Magnus. He’s paralyzed from the hips down, and his wheelchair wouldn’t fit through the CARPET doorway.”

“Could he crawl inside just using his arms?”

Sheesh, what a thought! “Maybe, but I doubt it.”

“How about faking paralysis?”

Dev gave Zephyr a major scowl, and growled, “I waited in the hospital while they cut the bullet out of his spine.”

“Solid, but let’s not rule him out quite yet. Eames, Glass, and Badaleaux easily make the cut. Any favorites, Detective?”

Dev shrugged. “Nothing comes to mind imediatamente. What about you, Jack? You look bright-eyed of a sudden.”

I’d been interrogating the old brain cells and had gotten a surprise hit. “Eames.”

Zephyr studied me. “Why so certain?”

“Two reasons. I recently overheard Glass asking for help on a crossword puzzle. He needed a term for a kind of old-timey computer failure. Eames answered quick as lightning.”

“Old timey computer savvy. I’ll buy it. What’s your other reason?”

“I don’t like him.”

Dev sprang into action. “Switch places,” she ordered me in a tone that got me almost leaping from my chair. “I’m calling up coroner’s reports and the station’s timesheets.”

Dev, already logged into the system, had the information displayed on a split-screen in seconds.

“How about that,” she said, showing a jagged edge of frustration. “Eames has alibis on the relevant nights.”

I should’ve figured that someone who seemed so likely to enjoy killing people wouldn’t actually be the murderer.

“Could our doer have an accomplice?” Zephyr asked, but immediately answered her own question. “Forget that. After being blackmailed, Castelletta would never put himself in anyone else’s power. But are we so certain the murders required a human presence?”

I turned my palms upward. “A police officer could take over a HOST using override and use it to turn a furnace on remotely. But fixing the gas orifices to burn dirty enough to kill everyone in large homes, plus disable any mechanical safeguards? Then switch everything back later? Personal touch required.”

Zephyr quirked her mouth. “These days, hun, *HOSTS* probably control all safeguards.”

“Maybe, but not the orifice sizes. Not adjustable.”

“Don’t know jack about heating systems, but why couldn’t a HOST just close off a boiler’s exhaust vent?”

Here I stood on solid ground. “Venting is done through flaps that open from exhaust pressure and close when the pressure stops. No HOST control involved.”

Zephyr nodded slowly. “Could the orifices have been jimmed before the nights of the murders?”

Dev fielded that one. “We checked utility records. We’ve had a local cold snap for over a week, and backup heat came on regularly in all three homes of the victims.”

“So the modifications were done on the night.”

Zephyr fell silent and closed her eyes. Her face grew very still, but I could see her eyeballs moving beneath their lids. REM contemplation, I thought. Dev fidgeted, and I tried to imagine a sensible next step.

When Zephyr started talking, I still hadn’t come up with a thing.

“Detective,” she said, “please call up the full personnel files on our four main suspects. We’ll check out the lot and see whose past turns to smoke and mirrors during or after the year when Castelletta vanished.”

“After?”

“Our doer might’ve had more than one change of identity.”

Dev shook her head and snagged the records, over three terabytes worth, and switched places with me again while they were downloading.

Meanwhile I opened a new, dedicated link between our computers, and Zephyr installed her search-and-compare app into mine. When the download ended, I kept the Badaleaux and Erikson files and sent Glass and Eames to Zephyr. My pair were innocent, said both my heart and brain, and I didn’t trust my objectivity about Eames.

Then the labors of Hercules-light began, slow and tedious work as I plugged each of my pair’s monthly folders, one month at a time, into the app for comparison testing. Worse, before long before multiple inconsistencies popped up, most in Mary’s records but Magnus wasn’t entirely clean. I had to crosscheck every damn one to test for clerical errors and either shovel it out of the barn or highlight it. The thought of either Mary or Magnus being our killer made me feel ill. Dev hung around for another hour, back-seat searching, but she had other cases and guilt finally pulled her upstairs.

“I’m finding issues with my two,” I announced as calmly as I could.

“Same here,” Zephyr said. “But almost entirely on Glass’s side.”

“What the hell? Could *all* of them be bent?”

“More likely hackers gonna hack. My finger of suspicion is pointing straight at Eames pointing the finger of suspicion at the other three.”

“Right! If Eames edited the files, are we wasting out time going through them?”

Zephyr shrugged. “I suggest we keep at it. We still might learn something useful.”

I suppressed a sigh. “Okay. Back to it.”

Sorting anomalies within info likely to have been corrupted began to make me cross and cross-eyed. Zephyr began to sing quietly to herself, which should’ve annoyed the hell out of me, but didn’t because she had the good pipes. I found myself listening more than working. . . .

Damn. My mind had drifted, and I forced it back on task.

Dev, bless her heart thrice, had coffee sent down after we’d labored for another hour. Zephyr

and I sipped while we searched, and whenever she wasn't sipping, she wisely kept her Styro-foam cup on the little table at her side. One peeve I keep as a pet is when people risk beverage spills near delicate electronics. Whoops, drifted again.

Time passed, and nowhere was gotten. The sun gave up waiting for us to leave, and the one long and narrow clerestory window visible from my office turned dark. Dev reappeared, bearing dinner for only two.

"If I know you, marido, you will not wish to stop, não?"

"Too true, esposa."

"I will drive home and prepare dinner for Alyse and me. Alyse is our third half, Zephyr. When she arrives and is properly softened by my delicious cooking, I shall pry from her what she has been doing these last days and will return to pick you up whenever you wish."

"Smart plan." My eyes had already returned to the mess on the screen. "Tchau, for now."

"Tchau. Amo voce."

"Same here."

Dev took off, leaving the office feeling a little colder.

We searchers took a break and ate before the food, too, could get cold.

"What language was that, hon? Sound's kind of Spanish."

I glanced Zephyr's way in unjustified surprise because it seemed so obvious to me. "Portuguese, Brazilian style."

"What was she saying?"

"Sweet nothings. Goodbye, I love you." I grinned without showing it. "Don't worry. We weren't talking about you."

It was her turn to look startled. "I never imagined you were!"

I had to laugh, and after a second she joined in. "All right, you got me," she said. "But revenge is inevitable."

Laughing seemed to loosen some knots, and I resumed work with more vim. After another two hours a thread of sanity drifted my way, and I turned to my temporary partner in anti-crime.

"It's getting late, Zephyr, and you must be exhausted from the long drive and then working all day and into the night. The department can put you up in a local hotel if you like, or better, I'll call Dev and you could stay with us. We've got guest rooms. With beds even."

She studied me. "You feel like quitting?"

"No, but I'm not—"

"Me neither. Besides, don't I look fresh as your proverbial daisy?"

She looked as tired as I felt. "Dew-covered. All right, but the moment you feel ready to shelve it for the night, let me know."

"Count on it, lazy bones."

My phone chimed. "Speaking of Dev, just got a text from her with an attachment. I must brag. She could've called, but this way we don't get interrupted."

"She's a rare one."

"One in a million." I read the text. "Hmm."

"Something relevant?"

"She wonders how we're doing and if I'm ready to come home, and reminds me that you're mortal and might need sleep at some point. She suggests you stay with us for the night."

"One in a billion."

"Also, Alyse wants to talk with me, and I should call her when I can."

"What's the attachment?"

"Opening it now. Huh. Weird. Forwarding it to you."

Zephyr opened her copy and expanded it. "Looks like a smartboard image. Physics, I'd say. Wave-shapes on 3D graphs and math way over my head."

"Al teaches physics, and she's been running mysterious experiments connected to this case. I guess this is the result. I'm texting Dev that we'll work for another hour and then I'll call Al and ask her to decipher all this."

I don't know if delaying that call was the worst mistake I've ever made, but it was definitely

in the top two.

An hour later, when I was still doing a kind of manual checksum test, the equivalent of counting bits and letters to see if they added up correctly, Zephyr suddenly belted out “Hallelujah” so loudly that only my skin kept me from jumping out of my body. I turned to see a blazing grin aimed my way and thought that maybe her revenge involved more dBs than I’d expected.

“We got him, Jack!”

“Fantastic! How?”

“Had a thought and borrowed FBI clout to add Sony and Microsoft and Meta legacy data into the mix. Not many old-time gamers were crackers, but almost all crackers were gamers. Truth?”

“A bit before my time, but I take your word.”

“Castelleta was just a kid when he got busted, so I reckoned he kept on gaming after he switched identities. But he didn’t want to lose any game standing, so . . .”

“He took over his old accounts under his new name?” I shook my head. “I would’ve never thought of that! When did you get FBI permission?”

“When I finished my half of the files an hour ago.”

I’d had the delusion we’d been working at the same pace! “Well, we still have the alibi issue.” Or did we?

“Your face tells me that you just got it. Master hacker, remember? He simply altered on-duty records. Are you aware that you’ve started growling?”

I hadn’t noticed. “It’s Eames’s, right?”

“Guess again.”

Shit! “*Glass* is our killer? But how could he stroll into those three homes to screw up the heating systems and be sure everyone inside was asleep and would stay asleep? On top of that, remember those video flickers? We *know* someone hacked the camera-feeds, and you say it had to be done through the server. See the problem? Why go through the bother if he used override the way we think?”

She sat silently for a moment, rubbing her eyes. “Time,” she finally said, “to discard an assumption.”

“Which one?”

“That the gassing couldn’t have been done remotely.”

I sighed involuntarily, frustration’s own exhaust valve. “Ignoring the orifice issue, again, why would a remote operator set up time differentials between video feeds? Seems pointless.” Strange thing: I’d wanted Eames to be the guilty one, but now that I knew he wasn’t, I mainly felt angry and a sort of creeped-out disgust.

Her gaze at me remained rock-steady. “Depends on how smart our killer is. What about misdirection on top of a solid alibi if anyone had brains or luck enough to spot those flickers?”

“That sounds . . . improbably elaborate. And if he re-used a tissue sample to reach CARPET’s console, seems like a whole lot of trouble just for a slim chance at misdirection.”

“Ah! But if he’d invented a new way to murder remotely, he might’ve wanted us certain it *wasn’t* done remotely. If he needed to use it again.”

My own words had reminded me of something Al had once said. She’d been describing principles that stage magicians use to fool audiences. One was preparation so elaborate that no audience member would dream that much effort had been involved.

Whoa! Had Glass’s call for help on that crossword puzzle clue about ancient Windows crashes *also* been misdirection? Just how damn clever and sneaky was Sergeant Just In Case?

“If you’re right,” I backpedaled, “it still leaves us with the impossibility of using a HOST to fill a house with carbon monoxide.”

She turned and called up Al’s physics diagram. “Suppose this could explain it?”

A sudden sick feeling that I didn’t understand made my guts feel watery. “I’ll give Al a call right now.”

I tried ten times and got no response, not even the “leave a message” prompt guaranteed to come up when no one answered. Same result when I called Dev, and when I tried the home com.

“You all right, hon?”

The question made me notice that my hands were shaking.

“Even Jeeves doesn’t answer.”

“Jeeves?”

“Our new HOST.” It all came to me in a terrifying rush. “Shit. Computer crime. Glass would’ve *known* I’d be involved in investigating his murders. And he could’ve used his access to CARPET to install some kind of . . . trip wire. If he learned I’d found his original name, he could’ve—shit, I bet he did!”

“Did what?”

“Bugged my office. Mini cams! Zephyr, I’ve got to get home *NOW!*”

“Any police station close?”

“Not close enough.” I spoke fast. “I could get there before local cops. Under fifteen minutes this time of night. Damn! I’ll need a patrol car which means red tape!”

“We’ll take my car.”

“*Then let’s go!*” I had no memory of getting up, but I was already standing.

She stood as well and put a palm toward me. “Hang on, hun. Fifteen minutes could be too long. Think. If your family’s in danger, my working theory is that Glass is here, right now, to keep his alibi running while he kills.”

She was right. I wanted to run upstairs, grab fucking Just In Case, and do something, anything, to stop him. I wanted it so badly that only her next words kept me from running out of the room.

“Jack, aren’t *you* the IT deity here?”

I stared at her for an instant. Then I jumped back into my chair, working quicker than I’d worked in my entire life.

Zephyr watched over my shoulder as I muttered a running commentary, barely aware I was speaking. “Kicking everyone but me out of the system. Done. Excommunicating Glass and de-authorizing his biometrics.”

“Terminals here require biometrics?”

I grunted. “Plus passwords. Put in a backdoor for myself.”

“Never met a system tech who didn’t.”

I didn’t slow down. “Glass has still got the edge. No point checking for an override on Jeeves, it won’t show up in the system. So I’m doing my own HOST override. Praying it’s not too late.”

“You’ve got the authority?”

“Not for any of this. But Dev does and she didn’t log out, just had to use her password. Hang tight.”

I tried Al and Dev’s private coms, no luck, but this time got the message-leaving prompts. So I called Jeeves directly and the HOST answered. “Good evening, sir. How may I assist you?”

I heard my teeth grinding. “Are my wives there?”

“Indeed they are, sir.”

“*Page* them.”

“I’ve done that, sir. They do not respond.”

Shit. “Jeeves, turn off the furnace if it’s running and keep it off while running the air exchanger full blast. Open all windows.”

“Very well, sir.”

I whirled the chair around and stood up. “Hope your car has police priority.”

“Good for all New England. Siren even.”

“Then let’s get the hell out of—”

“Let’s not,” said a voice from the hallway, and Justin Glass stepped into view. Now that I knew he was a monster, he looked different to me. His triangular face now reminded me of a praying mantis head, and his pale eyes seemed to glitter. More to the point, he kept a police-issued Glock G50T aimed at us with a non-police-issued silencer slipped over the square muzzle. Silencers don’t make gunshots all that silent, but they don’t make bullets any less deadly.

“Here’s what you’re going to do, Monroe,” he said. “First, you’ll reinstate me in the network.

Then we'll all go for a long drive."

"Zephyr, this is Sergeant Justin Glass."

"Thought it might be. Glass, I've got some dreadful news for you."

"Yeah?" Against all probability, his expression became even nastier.

"The FBI has been monitoring these computers, and they're watching and listening to us right now. Sorry, but you won't find it so easy to switch identities these days."

"You let me worry about me. You worry about you. But I'll tell you something for free: you've underestimated me. As of five minutes ago, no agency is watching us. Peeing their pants trying to, I'm sure. Honestly though, I'm grateful you're so stupid, Monroe. That diagram your wife sent you? It's her death warrant, and you've still got no clue."

"What'd you do, Justin?"

I'd never seen him grin before and hoped to never see it again. "Haven't you guessed? I went old school." He pointed at the ceiling with his free hand. "Sweet little microcam inside that grate. Perfect view of your screen. You get me accepted back into the system *right now*, Monroe, or we'll find out how good my custom silencer works. Play nice, there's a chance you'll walk away from this."

No chance, I thought, swiveling back to my keyboard.

A pang of terrible grief at never seeing the people I loved again, and never even learning if they'd lived through Glass's attack made me want to howl.

Instead, I did something desperate, probably confirming Glass's opinion of my intellect. Working too fast, I hoped, for him to track all my actions while covering both of us with his gun, I maximized my local network app to fill the entire screen. Then, hoping he didn't know IT protocols, I used it to call up a station-wide personnel list as if I couldn't reinstate him without reinstating everyone I'd booted out of the system. I set the long list to scroll, highlighting names.

Under this smokescreen, I activated my minimized Halloween prank, keeping it hidden behind the list, and setting its autotimer. The compiling had been finished hours ago, and I could only pray the program was bug-free. Leaning forward, as if eager for the names to stop scrolling, I reached under my desk to where I'd mounted a master volume control and a small joystick. I pushed the control to the max and the joystick all the way back and to the left.

Sometimes I like to hear music when working, so I'd brought in my old, pre-CAVE surround sound system. Eight-hundred-watt receiver-amp combo. RMS. Absurdly overpowered for the small space. I'd moved the joystick to put the entire output in the speaker directly behind Glass.

I flashed a warning look at Zephyr, knowing she'd figure something was up. Then I braced myself and tried to remember to breathe.

"Hey! What are you—" Glass began, until the most obnoxious scream I could find online blasted from that lone speaker. Even knowing what was coming, I was stunned. Glass must've missed the appalling monster face grimacing from my screen because he'd instinctively spun around, as I'd hoped, to face the anti-music.

My plan was straightforward. He'd turn. I'd pick up my chair and clobber him with it. But I was too slow.

Instead, Zephyr clobbered him with *her* chair before I could fully get upright. He went down face first and hit the maple floor hard enough for me to feel the clunk through my feet. The gun went skidding into the hall as Zephyr pushed her four-legged weapon away to sit on Glass's back and ready some kind of chokehold, although she didn't yet seem to be exerting any pressure.

I guess even detectives of the cyber variety get combat training. My Halloween "surprise" had ended, but my ears kept ringing so I could barely hear Zephyr shout, "He's out cold. Have any handcuffs lying around?"

"Would duct tape do?" I yelled back. Show me a tech with no duct tape, and I'll show you a tech out buying duct tape.

"Perfect."

I fetched the roll from a drawer and got a quick tutorial in how to immobilize a human. Tape legs together, same with arms, then tape bound legs to bound arms behind the back with a loop around the neck to discourage movement. Done.



“He’ll stay put,” Zephyr stated unnecessarily. “We’ll call it in. After.”

We leaped over the trussed turkey, ran down the hall after Zephyr had scooped up the Glock, and up the stairs. My favorite IT-detective led the way outside and toward the visitor parking lot. If it weren’t for adrenaline, I couldn’t have kept up. While running, she asked for my home address, and then called 911 on her police-com implant, added me to the call on my implant, and rattled off all relevant info including possible CO poisoning. The dispatcher promised that cops and an ambulance would be sent to my house ASAP.

Zephyr then buzzed the desk sergeant whom we’d just left gawking at our backs as we ran past and explained the situation. Dear Justin would be in a special holding cell soon, possibly still taped up. As I slid into the passenger seat of Zephyr’s car, I called Jeeves, ordering the HOST to unlock the front door. If an emergency crew showed up before us, I didn’t want them locked out.

Jeeves detected no present danger from CO in my home, but when I asked about CO levels over the entire evening said, “My deepest regrets, sir, but I cannot access that information.” Right.

Portable siren on the roof flashing and screaming threats, traffic parted for us like magic except for the usual handful of idiots who felt too important to pull over. Once on the ATS, our priority rating really showed. The system doesn’t take control of official vehicles radioing emergency status, but all traffic was routed out of the left lanes, and we belted along at a steady 135 MPH. I kept calling the house and only getting Jeeves while Zephyr set up a five-way on-speaker conference call, waking up at least three people in the process.

It’s foolish to talk on the phone while driving, and suicidal when driving fast, but I had no complaints. For one thing, this particular driver kept grim eyes on the road as if trying to catch it committing a crime.

I felt too scared to pay much attention to Zephyr’s rapid cross-introductions between conference members: Captain Josephs, Chief Lorenzani, FBI sub-director Joe Warner, and one Lieutenant Marie Corona from the Boston Police Department. But when Josephs snapped “What’s this all about, Fields? I hear a siren.” her crisp response grabbed my ears hard.

“We have a situation, people. Jackson Monroe, Hartford’s top system tech, is with me. That siren in the background is mine. We’re driving to his home, which we believe has been attacked by the individual responsible for the recent carbon monoxide deaths you know about. I’ve called this meeting because the doer is *extremely* smart and just as nasty. We’re not expecting it, but we can’t rule out a trap ahead. To be on the safest side, I’m sharing what we’ve learned with you.”

After a quartet chorus of agreement, she continued.

“We’ve identified the doer as a police supply officer, Justin Glass. Has a juvenile criminal record under the name Horatio Castelletta, arrested as the leader of a four-person cybercriminal ring.”

Chief Josephs interrupted the flow. “This is confirmed?”

“Confirmed. We’ve captured and, ah, immobilized Glass in Hartford’s main police station. The man’s an ace hacker. By my request, he should now be in a radio-isolated holding cell to prevent him using any . . . unusual com implants.”

“Sensible precaution,” the FBI honcho admitted.

“For sure,” I muttered. The thought of implants modified to affect nearby electronics hadn’t crossed my mind.

“Stay out of this, Monroe,” Josephs ordered. “Give us the gist, Fields, and make it simple.”

Zephyr reached over to pat my arm in sympathy. “Here’s your simple with some educated guesswork. I believe that one of Castelletta’s former associates, a man named Clyde Bennet, encountered Glass in uniform several months ago and recognized him as Castelletta. Glass would’ve been fired or even prosecuted if the department learned he’d faked his identity. Possibly on this basis alone, Bennet blackmailed Glass, making the fatal mistake of using his personal bank account for the blackmail deposits.”

Anxiety muted my appreciation of how tightly she’d assembled the pieces, but I got the impression one piece remained missing.

Josephs felt compelled to state the obvious. “That’s how Glass tracked Bennet.”

“Glass paid out big twice but came up with a plan to default. Since he didn’t know if Bennet had shared his discovery with other members of the old gang, he decided to kill them all and didn’t care who else in those homes died. Probably used public records to find the locations of the other families, and it apparently—”

“But *how* did he kill them,” Josephs interrupted. “We know he used gas but—”

Zephyr interrupted back. “We haven’t yet determined his exact method, but part of it involved getting control of the homes’ HOSTS with emergency override.”

“He doesn’t have that authority!”

“World-class hacker, Captain. He faked permissions. There are cracks in your security you’d better patch pronto.”

Long moment of silence. “How would he know all his victims were home when he attacked?”

“I suspect he used Hartford’s CARPET for surveillance.”

“Now you’re talking nonsense. *That* security is locked all the way down.” Josephs didn’t sound like a person who enjoyed nonsense. “Didn’t Monroe explain our system? You need preauthorization and iris scans to get through the door. Then it analyzes the hell out of a tissue sample before releasing the control console, and even *then* nothing happens without the right go-card.”

“Glass is one of only four not only authorized but required to replace the tissue-destroyer fluid. No one checks to see what kind of fluid he puts in. And hun, his job includes programming go-cards. We know Glass used the console at least once, because Mr. Monroe found proof he’d hacked CARPET’s server.”

Another long pause, then a grudging, “Still . . . if someone caught him at it—you seriously think he took that kind of chance to end the blackmail?”

“No, not just for that. What can CARPET do better than anything else on Earth?” Another silent moment before she answered her own question. “Spy.”

“So?”

“Irony alert. I’m guessing that before he got blackmailed, he was doing a fine blackmail business of his own. Where did he get the hundred grand he paid out to Bennet?”

Missing piece found!

“That makes perfect sense!” I burst out, and this time Josephs didn’t tell me to shut up.

Sub-director Warner offered a sobering thought. “So *every* CARPET system is vulnerable to abuse. Likewise police override.”

Chief Lorenzani piped up, sounding phony as hell, like the politician he was. “Thank you, Detective Fields and you as well, Mr. Monroe. You’ve both done the community a great service in solving these murders and uncovering this unexpected risk inherent in our surveillance systems. We will act immediately to preclude this kind of misuse!” Easier said than done. “I will personally relay the information to every relevant agency.”

Lieutenant Marie Corona, who hadn’t contributed to the conversation until now said, “I imagine one agency already knows.”

“Good catch, Marie,” Zephyr admitted. “We’ve been working with help from the FBI tonight.”

I gestured urgently at a highway sign.

“Everyone,” Zephyr announced, “we reached our exit and I’m logging out. Thank you all, and we’ll be in touch.”

“Good luck to you, Monroe,” Lorenzani called out, getting in the last word of the call.

“Take the first right past the stile,” I said, my voice shaking. “And second exit at the rotary.”

\* \* \*

From the front, the house was dark except for the porch light. The blue sedan blocked the driveway; Dev had planned to pick me up and hadn’t bothered pulling it into the garage. I was out of the car and sprinting toward the front door while Zephyr was still braking. Then dread froze me at the front door, just long enough for Zephyr to catch up, and we entered the house almost together. No traps got sprung; no bombs went off. Faithful Jeeves turned on the downstairs lights.

“Dev? Al?” Only silence answered my shouts as I ran a quick circuit through the semi-open floor plan. No corpses so far.

“Come,” I called to Zephyr in a voice gone hoarse. I took the stairs three at a time.

Jeeves obligingly activated the upstairs hall light, but we usually keep it dim to maximize the impact of the stained-glass window that Al made and I installed into the far wall. So I could see a little brightness leaking around the edges of the bedroom door, but oddly, none from the thin gap beneath it.

Feeling as if my stomach was full of vacuum, I tried to open the door. It wasn’t locked but something resisted my push. I shoved a little harder, afraid to push too hard in case the obstacle was a body. A blast of cold air hit my face, and then I got the door open enough to slip inside the room and saw why no one had answered my com calls or my shouts.

Al was kneeling over Dev, performing mouth-to-mouth CPR with total focus, and only swiveled her eyes toward me as I moved closer.

She switched to chest compressions. Now I could see Dev’s face. Pale as milk except for a tinge of ugly purple.

“I was a fool,” Alse panted. “Never thought *we* were . . . in danger. Found her passed out. Kitchen floor. Carried her here. Opened window. Shoved . . . towel beneath door. About to call you when . . . she stopped breathing. Been doing this . . . long time. Didn’t dare quit. Take over, Jackson? Tired.”

I moved forward, but Zephyr grabbed my arm. “Hun,” she said to Al, “you already saved her. Look. Her color’s coming back. Just wait for one moment. See? She’s breathing on her own, and CPR tends to damage ribs.”

Al sobbed once, stopped pressing, and stared down at Dev’s face. “You’re right. Thank you.” Her voice came out so softly it almost broke my heart.

“She’ll need some pure oxygen,” Zephyr said, “maybe hyperbaric treatment. Hear that siren? An EMT team is almost here. I’m Zephyr Fields, your husband’s assistant for the day.”

More the other way around.

With my help, Al stood up on shaky legs and somehow managed the faintest ghost of a social smile. “Alse Guillory.” Then she collapsed in my arms, head turned to keep an eye on Dev. “I was so scared, Jackson. Was CPR even the right treatment? I never studied carbon monoxide poisoning. God, I hope she’ll be all right.” The unsaid phrase “possible brain damage” practically echoed in my head.

The recommendation is to apply CPR for a minute, chest compressions only, and then stop long enough to call 911. But all I said was, “You did great. Just great.” Relief tears were running down my face, but I wouldn’t let go of Al long enough to wipe them off.

Just as Zephyr did the sensible thing and closed the window, Dev groaned and opened her eyes. She tried to sit up but winced, clutching her ribs. “Ai!” That’s “ouch” in American. “What happened? Why is it so *cold*?”

I ordered Jeeves to turn the heat on, and then Zephyr and I took turns filling her in. Dev’s brain seemed just fine, but her mood needed work. I think the word “furious” isn’t strong enough. She wasn’t pleased with Just In Case, and only paramedics armed with an O<sub>2</sub> tank and a mask interrupted some fascinating speculation about Glass’s personal habits. I did pick up some new and valuable Portuguese terms—which I promised myself to look up later.

Despite pressure from all parties, Dev refused to go for an ambulance ride, insisting that she was perfect except for her ribs. Admittedly, she did seem fine, but I would’ve appreciated her following professional medical advice. I overheard an EMT muttering that Al must’ve done CPR like a pro, and I thought they departed looking somewhat disheartened. I suppose an empty ambulance is a sad ambulance. As for me, by then I couldn’t stop smiling.

It was Zephyr that asked Al the question. “Jack and I still have no idea how a HOST could make carbon monoxide using a gas furnace.”

Al looked a bit confused. “Didn’t you see the chart? I sent a pic to Dev asked her to forward it to Jackson.”

“We saw it,” I admitted, “but some of us aren’t physicists or as savvy as Glass. I wish *he* hadn’t

seen it with his damn micro cam.”

“I thought it was self-explanatory. HOSTs control home sound systems, and CAVEs can produce powerful sound waves below the range of human hearing. I knew that it’s easy to directly extinguish flames with such waves, but had to use an acoustics lab to determine if ultra-low frequencies, generated at a distance, could make boiler-flames burn inefficiently enough to produce significant quantities of CO. After four days of experiments, I had the required frequencies and amplitudes. I’m so sorry it took that long.”

“You’ve got nothing to apologize for,” I said. “Considering the whopping blackmail payments Glass forked over, I’ll bet it took him two months to figure out the same thing.” But without an acoustics lab, I didn’t add.

Zephyr emitted a sigh of total satisfaction. “I’ll leave you good people to get some sleep, and find my way home. This has been a day and night for my personal record books and I’ll say it right now. If I still had some energy, I’d be jumping for joy at the outcome.”

She did look more joyous than tired. Her big eyes practically glowed.

“It’s well after midnight,” I said, “why not stay here tonight?”

“Thanks, hun, but I couldn’t sleep after all this and a long drive will settle me down. But how about you walkin’ me out to the car? Won’t keep you long.”

“I happen to be free at the moment.”

“Folks, you are a lovely, lovely family and I hope to be seeing you all again before long.”

Al and Dev, holding hands now, wished her goodnight and a safe trip, and I followed Zephyr out of the house.

As we walked down the driveway, fallen leaves crunching beneath our feet, nagging me that I’d been neglecting chores, she asked, “That god-awful scream you played, the one that made Eames turn around, you keep something like that handy in case armed murderers show up?”

I laughed. “Hardly. Just a stupid prank I’d been working on, but I’d bet any noise played that loud would’ve done the trick. Glad you brought it up. I’d meant to tell you how blown away I was at how fast you acted despite that noise. Scared the crap out of me even though I expected it.”

“I’ll take a little credit there, but not much. I saw you fiddle with something under your desk and I’d noticed your speaker system. Then that look you gave me . . .”

“Still—”

“One thing more, Jackson. I was born nearly deaf.”

In the darkness, the light dawned. “But you obviously hear just fine, so you’ve got audio implants.”

“Uh huh. With built-in limiters. They cut in the instant anything really cuts loose. But even then, that was one ugly noise. And, hon, I thank you for it from the bottom of my soul.”

Her praise warmed me despite the temperature. “Offend and protect, that’s my motto.”

We’d stopped at her car. “Guess this is goodbye,” I said. “You’ve been wonderful to work with. I wish it could continue.”

She chuckled. “You think it won’t? I’ll be coming back to sift through Hartford’s computer records to find more hard evidence against Glass that’ll convince even the stupidest jury. And we’ll both be asked to testify in his trial, no doubt. But that’s not the main thing. What you did, using your CARPET to turn NGI files into something you could *see*? I wouldn’t have believed it and still don’t understand it. You’ve got some kind of crazy brain, right? Count on me putting it to good use.”

I grinned. “Okay. I’ll start counting.”

She gave me a brief hug, got in her car, and drove off. This time, no siren. I turned, still grinning, and practically ran back inside, and not just to get out of the cold.