It wasn't working. Jillian had been over the connections a dozen times. Run diagnostics. She'd even crawled around the campus communications lab after hours, checking wires and plugs. The conclusion was inescapable. The satellite feed she'd been collecting for the last two years as an undercover signals intelligence officer was broken.

Fixing it was going to be like walking through a haunted house—potential danger lurking around every corner.

It was possible the connection was fractured somewhere upstream, where the satellite data was routed through Telekom Berlin. But to investigate would take her off campus, and with a cover as a Canadian exchange student, she didn't have an obvious reason to go poking around West Berlin's communications infrastructure.

There was also the possibility that the copy she made had been discovered and severed deliberately. And her cover gave her even less reason to knock on BND's door and demand to fix it. The West German intelligence agency would detain her on the spot.

Jillian rested her head in her hands and closed her eyes. She just had to think. There was an answer to this problem. She didn't need to solve for world peace. She just needed to fix a broken comms link. It might be difficult, but it wasn't going to be impossible. It was a matter of proper diagnosis and resourcing.

Of course, because she had to be cautious and not blow her cover, this problem was also not going to get solved in a day.

She typed up a note explaining the situation and the actions she'd taken thus far. Picking up her bag, she put the note in her pocket for easy access at the dead drop. Instead of the usual

tapes of compressed satellite data, all she'd send home this week was her update. But it needed to get done. It was the first time the feed had gone down, and Jillian wasn't going to be able to fix it before someone at the newly named Communications Security Establishment, or CSE, noticed it was out.

She hoped they'd give her time to diagnose the problem. As an electrical engineer employed by Canada's signals intelligence agency, she had a good chance of being able to find a solution.

Before she could get to the door of her small office, someone knocked on the other side.

"Jillian," Gerhard Fens said, stepping in and closing the door behind him. "I think I have a next step to your problem."

Gerhard was a professor at the West German Science Institute. On paper he was her PhD advisor. In reality, he was the man who had approached CSE about making a copy of the BND satellite feed. Consequently, he was the one person in West Berlin who knew the full scope of Jillian's mission.

"Really?" she asked. Because that would be amazing.

"When we originally set up the data flow, there was one part that needed to be installed at the main cable relay that comes into West Berlin, yes?"

It sounded right, but Jillian didn't actually know. She hadn't done the initial setup. That had been her old boss Frank, who had then trained her on maintenance of the feed.

"There was a tap, or something like that it was called, to divert the traffic long enough to make a copy. My nephew, he works at the cable company and was able to help us set it up. But I remember, the tap needs to be reset every so often. The exact timing, I'm not sure. My nephew

takes care of this. But he has been promoted. And I forgot about the tap reset. I'm sure that is the problem."

It made sense. The tap in question would allow the traffic to be buffered for a couple of seconds so the CSE copy could be made, and buffers sometimes got full. Often the data never fully purged, so little bits stayed in the buffer, over time reducing its capacity. Hence the device required a periodic reset. It was the kind of thing that in Ottawa she would have been able to diagnose quickly. But covert operations did not come with easy access to the infrastructure.

"Your nephew, can he introduce you to his replacement?"

Gerhard nodded. "Yes, I'm sure he can. But when we set this up, Frank, he said that anyone new who needed to be included in the operation had to be vetted by your office."

Of course they did. And wasn't that going to be difficult. "Yeah. Okay, if you could get the replacement's name, plus date and place of birth without raising any suspicions, I can put him through the vetting process. If he passes—and let's hope he does—you can approach him and figure out if he's interested in helping us."

It was work that, at home, Jillian would never have handled. But here in the field, she was it. She hoped that this new guy, whoever he was, would be sympathetic to helping West Germany's allies in their efforts against Soviet Russia and its followers—without breathing a word to anyone actually in the West German system.

Jillian could only sigh. It might happen. But she supposed she should come up with a plan B, because the chances of this problem having an easy fix were becoming less and less likely.

The only part of her job that Jillian didn't like was her isolation. She had no one to problem solve with. The few people in this city she could talk to honestly knew nothing about the engineering behind signals intelligence operations. Even her handler out of the embassy in Bonn, Jean-Marc Belanger, was more a traditional spy. Running agents and the like, he didn't know anything about how to collect signals intelligence. There wasn't anyone in West Berlin to help her when she hit a technical roadblock.

Sitting in her apartment in front of a fan and eating mint chocolate chip ice cream, Jillian sorted through her options.

If the new guy didn't want to help, should she try to recruit someone else? Was there anywhere else that tap could be placed to create a buffer? The person who would have the best insight was Frank. But he wasn't even at CSE anymore, having been sent on assignment to the human intelligence section of Canada's policing and security organization, the RCMP.

Jillian tapped her spoon on her lips, thinking. Frank still had his clearance. And this setup in West Berlin had been his baby, the access he was most proud of. The chances were high that he had all the details in his head. He was anal that way. If she could get to a secure phone somewhere, talking to him would probably be enough.

There were secure telephone units, called STUs, all over this city. The question was, which one was the most legitimate for her cover?

Her friend James was a captain in the British army stationed here in West Berlin. No doubt he had access to a few STUs, but they would all be buried in high-security rooms on the base. Even if he could get her in, to reveal her clearance would be to reveal her cover. Safe enough maybe, with British intelligence, but she'd have to get authorization ahead of time.

Her best bet was probably the Canadian consulate. Although mostly focused on issues involving trade and commerce, they still had a means of secure communication.

The only problem was, she tried never to go to the consulate. Like the embassy in Bonn, it was heavily monitored by adversary agents, and to go more than reasonable for the average expat would raise suspicions. But foreign students did need to interact with official government services, so her cover would be appropriate for a rare visit.

Jillian knew her current situation was exceptional. The entire collection program was disabled. It either had to be fixed or shut down.

She rummaged around in her kitchen for a pen and paper. Another note for her next dead drop, this time to Jean-Marc. He was in the best position to set up the consulate access. She figured the easiest way was to go in saying she'd lost her passport, but Jillian would leave that up to him.

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"Frank, it's Jillian. It's, um, been awhile."

"Jillian, we're on secure phones. What is going on? And please tell me that feed in West Berlin hasn't been compromised."

Jillian smiled, relieved. She wasn't good at idle chit chat either. "No. But it's broken, and I'm pretty sure the problem is the tap on the source cable."

Frank sighed. "The weakest link. I knew that tap was going to cause us problems. It's the reset, isn't it?"

Even though it was Frank, and he was usually irritated with her about something, it was great to be able to talk to someone who understood the engineering. "Yes," she replied. "I mean, I'm not one hundred percent sure, and I won't be until I can verify the flow somehow, but at this point the reset is the most obvious technical issue."

"Why has it stopped?" Frank asked.

"Gerhard's nephew has moved on to a new position."

"And what? He can't get down to the cable room every few months and press a button?"

"How would I know, Frank? It's not like I ever met the guy. Until Gerhard showed up in my office last week, I didn't even know about the reset."

"It was part of our commitment to him," Frank said. "He was nervous. He agreed to help if only his uncle and I knew about his involvement."

Jillian thought for a moment. "And someone in personnel security, right? Did you clear him?"

"Are you telling me how to do my job?"

Jillian rolled her eyes, but only because he couldn't see her. "No. I'm just trying to figure out what to do now."

"Yes, I had him cleared. Your best bet is getting him to keep on doing what he was doing."

"What if he can't?"

Frank was silent for a moment. "It's going to be a pain in the ass."

"I've already asked Gerhard to get the new guy's name, address, and date of birth. Then, I figure, Gerhard can do the approach if I give the thumbs up." "Listen, Jillian, personnel security is going to take weeks, if not months, to clear someone new for that op. Unfortunately for you, it got on their radar last year, which is why I've been exiled to the RCMP. Once you put the request in, Bob Cranton is going to use it as an excuse to snoop around. I can't guarantee that he won't try to shut the whole thing down."

Jillian started, unprepared for that news. "What? Why?"

"Because he's pissed off at the world. When I connected you with James, Cranton came in waving the Official Secrets Act at me, saying I broke the law and was one step away from treason. He wanted me fired. He didn't get it, and now he's looking for an excuse to dismantle what I built over there. This is not a man who puts the mission first."

Jillian thought about that. "So my best option really is to get Gerhard's nephew to agree to keep on doing the resets."

"That is far and away the best choice."

"I need a plan B though, Frank. The nephew might not have the access we need anymore."

There was silence on the line.

"Frank?" Jillian asked.

"Shut up, I'm thinking."

Jillian let the silence churn on awhile longer. Whatever Frank could come up with would be better than getting into a fight with someone back at CSE and sacrificing the collection to a territorial pissing match.

"Okay. The first thing you need to do is confirm it's a reset issue. Gerhard's nephew surely can do that. If the light is green, then the buffer is working. If the light is flashing red, then the buffer needs to be reset."

"Seems clear."

"Idiotproof. No reflection on the nephew, but human error is almost always the thing that fucks these operations up."

"And if it's not a reset issue?"

"I'll have to think on that. It would have to be somewhere between the buffer and the copy you get."

"Right," Jillian said. "Like BND has figured out what we're doing and is rerouting the traffic."

"If that's what's going on, get ready to come home, because there's nothing you're going to be able to do about it. Of course, in that case you need to get that tap and send it back via the consulate. We don't want BND to find it and connect it to us."

"Noted. So our best-case scenario is that it is a reset issue. Can I evaluate the new guy by myself?" Jillian had gone way outside her official SIGINT duties over the last year. Not that she was now an expert in human intelligence, but here in the field it wasn't as easy to stick to one's official area of expertise.

"No. And before you get all defensive, it's not because you couldn't. It's because it's so far outside protocol that you'd come home and find out you don't have a job anymore."

"So, are you going to come over to Berlin and check out the replacement yourself?"

Frank barked out a laugh. "It's not in my area of expertise either. But that feed gives us really good intel—a lot of which we share with the RCMP, which means they have a vested interest in it continuing. And vetting people for loyalty and discretion is what they do."

"Aren't you working with the RCMP now?" Jillian asked.

"Yep. On anything that's of interest to both our agencies."

Jillian's brain whirled as she tried to keep up. "You seem to be making an argument that this feed qualifies."

"I think it does," said Frank. "I also think I can make the argument that I'm in the best position to direct how it gets fixed."

"Which means?"

"Let me figure it out, but I'm going to try to send you someone."

"Someone who can properly vet the new contact?"

"Yeah, and who can confirm this operation is staying off BND's radar."

Jillian's stomach muscles relaxed. "Thanks, Frank. Are you going to send me the contact?"

"No. Just let me know when you verify if it's a reset issue. I'll start the paperwork in the meantime. And when she gets to Berlin, she'll have instructions on how to find you."

"She?" Jillian asked, intrigued. There weren't a lot of women who did overseas intelligence assignments. In CSE Jillian was the only one. The RCMP might have a few more, but it wouldn't be many. The old boys' club was hard to break into.

"Yeah. You're going to love her. You can spend all your time commiserating on what a pain in the ass I am to work with."

Jillian smiled. "I would never say that about you, Frank."

"Sure," he said. "When you confirm, just leave me a message. Unsecure phone is fine.

'Yes' if it's a reset issue, 'no' if it isn't. This is the better way to go, because neither of us has a friend in the head of Personnel Security at CSE. This way allows us to bypass him entirely, while still somewhat following protocol."

Great. "Does this stuff ever get uncomplicated?"

"Yeah, when you get home. But trust me, you're going to miss it when you do."