

Prologue – Six months earlier – *There's no time like the present*

“Ling, we gotta go. We have to get out of here! Can you stand?” asked JAC.

Ling was having trouble staying focused or comprehending much of anything. As the mental fog began to lift, words started to make sense again. Responding however was another matter. It was only after several minutes and with a great deal of struggle that words could be formed.

Ling finally questioned, “Where am I? And now that I think about it, when am I?”

JAC realized that Ling was still weak and in no condition to move under her own power.

“I can see you need a few minutes to gather yourself. You must understand the diversion will only last a few minutes and then the guards will return. You probably should have answers to get your thinking de-fogged, but time is of the essence, Ling. I can explain later when we have more time. Right now, we gotta go.”

Ling was lying on the table and rolled her head to the right in order to orient herself to the surroundings. It was an oppressive room with a stink of neglect and disuse.

“You are already too late,” asserted Ling. “There is a video camera just over the door. They must know already of the escape attempt. You should make your way alone. I can just barely move my head and you look like you’re ready for a marathon. Thanks for trying, whoever you are.”

JAC was frustrated with Ling’s attitude, but advised her, “We knew there would be a camera inside this area and right now we are feeding a video loop through it that still shows you lying on the table with the narcotic drip feed stuck in your arm. We expected that your muscles might have atrophied after this length of time, so I gave you a shot of B-complex with an adrenaline boost as a chaser to help get you amped up. With what I shot into you, it wouldn’t

surprise me if you wanted to run down to the beach for a ten kilometer swim. By the way we are one hundred kilometers from the beach.

“How are you feeling now, Ling? Can you stand? We gotta go.”

Ling smiled then responded more coherently, “Now I know who you are. You are JAC, aren’t you? Why would you come to rescue me and Grasshopper?”

JAC’s smile quickly turned to a solemn dark look as she apologized, “Ling, I’m sorry about your assistant. They must not have valued him the way they did you. They saw to it that Grasshopper did not make it this far.”

Ling now was awash with remorse at the loss of Grasshopper and with guilt at having survived by the whim of her abductors. Her resolve to get up melted.

Ling’s voice cracked, “Then my fate is here and I shall follow behind my dear Grasshopper. All I see ahead now is emptiness, and I don’t want to face it without his strength.”

JAC’s eyes now flared from her temper, which was escalating to fury as she commanded, “Soldier! Colonel! I gave you an order! You will stand up and you will follow me out of here so we BOTH don’t suffer the same fate as Grasshopper! Maybe you should understand that they tortured him before they killed him. I am giving you a chance to escape and extract revenge from your abductors! Don’t you want to get even? Don’t you want to live for Grasshopper, so they can pay for their crimes? Don’t you owe that to Grasshopper?”

Ling began to feel the adrenaline boost kick in and the goading from JAC about revenge ignited a storm inside her. Ling swung one leg down and then the other, which gave her the momentum to sit up on the side of the table. Her eyes now burned with hatred for those responsible.

Ling stared into JAC's eyes and responded in crisp military fashion, "Colonel Ling Po reporting for duty as commanded, sir! Get me out of here!"

JAC smiled knowingly and placed Ling's arm around her neck to assist as she stood to walk. They moved slowly and carefully towards an opening in the floor that allowed them to then drop into the underground drain/sewer systems which snaked below the structure. The underground system lead to a shallow river. Going with the current they finally located an area that was flat enough to make it up onto dry land. Ling's strength was almost all gone, but she grinned from ear to ear at their good fortune. JAC flashed a light signal into the dark, and a signal was returned. Shortly after, they were taken on board a craft and placed under cover as it moved downstream.

Ling used the last of her strength to ask, "What happened to my original escape plans? How did I end up here? Who was it that had me?"

JAC marshaled her features as she solemnly conveyed, "As far as we can tell, it looks like someone among the exit personnel compromised the operation and sold you out to Chairman Lo Chang. You have been here for months. We got a snippet about your location from the Internet chatter and staged this exit strategy. Now all we have to do is find a new place for you to operate from and a new identity."

Ling Po smiled as she said, "Thanks for getting me to go. Making me move was not easy. I will trust you for now."

Having spent all her physical and emotional energy, Ling dropped off to sleep while the boat made its way down river to freedom.

Otto sat in his Zurich office. He casually ran a hand through his thick stock of well-cut white hair, and reviewed the plan he'd put together to fulfill the requirements requested by Prudence under one of the United States government contracts. The R-Group's contract was primarily focused on gaining information on where each of the global players was militarily with nanotechnology. He struggled with understanding the goals that each of these major players envisioned for the use of nanotechnology, how it might be applied, and what the potential downsides or risks were to each of the global powers. This was always the backdrop to their assignments.

The R-Group was a closed-family operation that had been founded during World War II by two brothers and a best friend. It had all started with the capture of an Enigma Machine that the Germans used to encrypt communications. As the founders of the R-Group, which included Otto's father, fled from Poland to Switzerland, this acquisition did as well. They formed their operation to encrypt information and used the expanded capabilities they created to help preserve and transport the wealth of those under Nazi scrutiny.

Over the years the family operations had grown to include real-estate, and financial investments along with the banking aspects, financial security, and, these days, a huge focus on information technology. They had many businesses established around the world that were subsidiaries of the primary family business. Trails from any of those subsidiaries back to the R-Group were obscured from the most in-depth reviews available to anyone outside the family. The overarching mandate of their organization was for human rights and options for good succeeding over evil.

R-Group resources for information technology were impressive by any standard. As their operations had grown, they had shaped bleeding edge technology and leveraged it far ahead of the intelligence agencies of any country in the world. As a result, they provided information services to those entities or countries with a goal of continual assessment of the capabilities of world powerbrokers. Decisions on which projects they would accept or reject was a review process with a voting right tied to the original founders. Each member of the inner circle of the family was highly educated in a general sense of the family interests, yet typically had a primary talent at which they excelled. The three primary members at present were Otto, Wolfgang, and to replace the recently departed Ferdek, Quinton Ferdek Watcowski, who was better known as Quip.

Otto himself had a real head for finance as well as most of the direct dealings with their clients from the world's intelligence communities. He also sculpted the vision for the organization expansion, yet maintained focus on their core mission.

Wolfgang was primarily focused on all financial matters with his ability to find even the most deliberately buried money trails. Additionally, he was brilliant in real estate and the primary moral ethics of the family and its associated business endeavors.

Quip, the youngest of this voting arm of the team, was the architect of their information infrastructure as well as an advanced technology integrator. His ability to access systems without detection, join programs and information together for analysis, and maintain the highest security levels was without equal.

Otto's daughter, Petra, was an encryption guru with the ability to create programs and algorithms to secure information. Her abilities were equally valued by the clients she assisted,

based on their requirements. She was valued as a consultant to many individual customers world-wide.

Jacob, Wolfgang's grandson, had recently joined into the family business after he'd grown up in the United States with his mother. His mother had been killed, essentially in the line of family duty. Jacob was educated in both structured and unstructured programming, and gained significant experience as he worked with financial institutions on security of their systems. He was renowned for his ability to perform near exhaustive penetration testing.

Additionally, all the family members were educated to be multi-lingual for reading and speaking which allowed them to easily work with customers all over the globe. Their manners and attire spoke of wealth without being gaudy or trendy. They were all masters at hiding most of their feelings from all but each other. For the few skills they did not have within the family they had developed strong contractor relationships, such as for advanced telecommunications. They supported those that helped mankind and helped detour those who carried the same mindset as the Nazis.

Prudence, an Avatar identification for interactions with the R-Group by those in the Western intelligence community, had contracted for two services. One service was verification that the CIA was or was not involved in a terrible explosion in Mexico that could possibly derail the joint efforts by the United States and Mexico. This effort had been completed and would be provided in due time to fulfill that assignment. The other service, which was the one Otto was focused on, was the information requested around the terms "nanotechnology", "grasshopper", "biometric implants", "peer to peer mobile communications", "satellite uplink tethering", "near field communications in combat situations", "po", and "pilotless drones". The information from simple searches of these terms was certainly within the capability of the agencies at Prudence's

disposal. So without further guidance, Otto had presumed that she required a broad deliverable for the service across world powers and their respective use of communications for identity and location of people and things.

Otto had outlined many of the possibilities that he thought might be applied with use of these technologies in part or total combination, but he wanted the insight from the key staff he had assigned to focus on the project. As he walked toward the conference room, located in the primary technology center in Zurich, he was absorbed with the direction he planned to take with that discussion as he took his seat.

“Good morning, all. I trust that you are refreshed and ready to tackle this new assignment. Of course, as other pressing matters arise from customers we will decide if any of you need to break away for those issues. Otherwise, I would like you all to focus on this assignment,” began Otto.

Quip offered, in non-typical seriousness, “Otto, I have shown both Jacob and Petra my current modifications to our Immersive Collaborative Associative Binary Override Deterministic, or ICABOD, system. The enhancement made with facial recognition as well as some enhancements Jacob made for handling rapid review of the Big Data collected dovetailed well with the updated next generation encryption from Petra. It seems to be performing well with these additions, and Jacob will continue to modify as things are processed to continually improve. I believe this will be key to not only gathering and classifying the information by the sources and owners, but also for the modeling of where each of the leaders in using these technologies are at present and what their plans are.”

“Good,” Otto replied as he smiled and then continued, “So, we all seem to be on the same page, which is important.”

Jacob suggested, “In looking at each of the aspects of potential application of nanotechnology, the use of locating people rather than objects seems to be the focus. Problems to overcome that seem most obvious include: how to easily maintain power, how to be used with a person, and how to avoid falling into the wrong hands or effectively hiding. At least I believe these would be initial critical category questions.”

Petra chimed in, “All of this development would be ripe for stealing by different entities if they think one group is ahead of another. The encryption would be extensive by any group to help avoid information theft. At this point, given enough time, we can open any file and create the needed encryption keys.

“Toward that end, I have been doing surveillance on several of the most easily identified targets for military and non-military development. So far the feedback is meager, but the content is fairly rich from sources in the U.S., England, Middle East factions, and China.”

“If those are the targets at present, then I will start tracking all the money sources for each of these primary players,” Wolfgang offered. “As other players are added, we can expand the financial aspects.”

Otto grinned and declared, “It is so nice not to have to provide assignments since you each know where you can provide the most help. I suspect we will begin receiving other requests from these entities as they are hitting walls in developing or deploying the newer technology. We also need to determine if England is working independently, or augmenting efforts for the United States.”

Each of the professionals at the table nodded in agreement. They didn’t know what would be the full value of this project, and frequent reviews would help direct their efforts. For the time

being, they would work out of this operations center which would also hone the team further to make them a more cohesive force.

“I, for one, would like at least update meetings every couple of days until we see where these trails take us,” requested Wolfgang.

“Agreed. I also need to think of the best ways to get a bit of an update on our friend Su Lin at Texas A&M. I would not like her to become a target for any of these players,” advocated Otto.

“We’ve kept a fairly close eye on her activities, but she is very adept and clever when she gets focused. So you might be right. Though nothing is present on the radar screen with her,” confirmed Quip.

Wolfgang asked, “Don’t we also owe Prudence an update on the CIA involvement in Mexico? I know Quip and Jacob were working on the report completion and the presentation framework, but I didn’t hear if that was finalized and ready for delivery.”

Both Jacob and Quip grinned at the same time, then looked to each other to see who was going to speak first. Quip nodded toward Jacob to do the honors.

“As you know, the CIA was not directly involved in the operation that brought down the building in Mexico and killed several pornographic-linked criminals. However, we have been able to create the impression, if we all agree, that the CIA potentially was behind the incident. We don’t want to report a lie by any means. However, we were able to secure some facts which might make this the best option for the slant of our final report.

“One, there was trace evidence, found by the authorities that investigated the damaged site, that indicated the C-four was part of a shipment that the CIA had stockpiled in a southwestern U.S. location. Additionally, there were several CIA operatives that were identified

as being in close proximity, though assigned other tasks, during the time of the incident. That information came from CIA correspondence. It would be a short step to weave these elements together suggesting this was an inadvertent communications glitch that resulted in a tragedy. There is no other evidence tying to any other source, and we dug really hard.”

Quip offered, “The other option is to simply point out these facts in our report and that no other culprits could be identified, which is totally true. Jacob and I agree that outright lying on this would be wrong, but assembling the facts along with the evidence of the activity would arm the U.S. agencies during any subsequent discussions with the Mexican authorities. The evidence of the pornographic criminal activity has only partially been identified by those governments, so the report would include new information for Prudence on the actual victims of the activity.”

Silence reigned as each participant thought about the options. It was a fine line. However it made sense for conveying the information. Each of them wanted this chapter closed. Finally, Otto broke the silence.

“I think this might be the best choice to go forward. Complete the report then as you would like it to be submitted and send it to Wolfgang and me. We will read it very carefully and let you know the decision in the morning.

“Let’s get started, folks, on the new assignment, update as needed, but we will regroup together day after tomorrow. Thank you.”

Chapter 2 – Start over as in a fresh sheet of paper

Dawn, with the light reflecting off the Yangzi River, promised to be a beautiful start to a productive day. The light from the east scattered through the low clouds on the horizon producing magnificent colors. The warming land generated a light mist over the river that spilled over onto the banks much like the Scottish moorlands. What a great day to be alive! It seemed as if ying and yang were totally aligned for the troops that were assembled for practice maneuvers. What a shame!

The Captain, followed closely behind by the Lieutenant, ran into the command center and both screamed, “Get me ambulances now! Do you hear? Now!”

The Major was ashen white and could barely get any words out but finally said rather solemnly “We saw it on the cameras. They don’t need ambulances, but we clearly do need autopsies. We need to understand what happened and why.”

The Captain and Lieutenant stopped in their tracks as their eyes burned with fury.

The Captain reprimanded, “We saw it firsthand! They are all dead! The ones that didn’t die instantly from the goddam chip in their neck died trying to claw it or cut it out before it could kill them! Shit! A hundred men killed not by the enemy but by their own people!

“This was just supposed to be standard maneuvers to try out a new communications system. Some great new weapon this is! Now all we should have to do is get the enemy to use it! What in the hell happened?”

The Major struggled with himself to keep his emotions in check at this outburst, then solemnly ordered, “I want all of them taken back to base, and the chip set removed for analysis

by the engineers. We have to know why this new communications system malfunctioned. Additionally, this project and its results are to remain classified. Understood?"

The Captain brought himself under control with some difficulty and finally responded, "Yes, Sir. I understand, Sir. Will there be any more executions today, Sir?"

The Lieutenant however was still seething with anger as he barked, "You ordered it, didn't you? The communications chip with its own battery implanted in their neck for battlefield communications wasn't working as expected, was it? It worked fine in simulations and at first while we were still in pre-deployment formation. So what happened when we progressed with our standard tactical deployment and spread out?"

"We started losing communications with the edge points and.....and then you boosted the signal, didn't you? You amped up the power to receive and transmit in the chips so that all points could be reached, didn't you? The chips didn't have thermal regulators to dissipate the heat that the damn things generated so they started burning through the flesh in their hosts' necks! These son-of-a-bitching chips were imbedded right alongside their auditory canal in close proximity to their carotid arteries! You murdering bastard! I should kill you myself!" he shouted as he pulled his weapon, only to be shot by one of the guards in the room.

The Captain swallowed hard, looked the Major in the eye, and said, "I really wasn't looking for an answer to my earlier question. I have my orders, Major. Will there be anything else, Sir? If we are finished, I really do need to go outside and throw up."

The Major, now recovered from the debacle on the simulated battlefield area as well as the execution of the Lieutenant, waved on the Captain to complete the assigned tasks without saying a word. The Major wondered if there was a quiet place for him to go and throw up as well. The Lieutenant had been right. He had pushed the power up on the chips to get the full

range of communications. All those trusting volunteers had been killed by *expedient field testing* of a new communications methodology and it had been done on his watch.

This wasn't like the software world where you just recompiled poor code and tried again. You needed willing volunteers or at least volunteers. True, the military, regardless of the country, always had volunteers willing or otherwise to try *stuff on* to see if it worked as designed. The trick was always to not discuss how the previous group fared in the testing. As the old phrase goes, *with progress, someone always gets hurt*.

01010101010101010

In the primary examination room the doctor affirmed, "Major, your field observation of the chip overheating and burning through the surrounding tissue is fairly accurate. The chip needed a certain amount of size, circuit density, and a modest power source to even function correctly. We encased the chip with a non-toxic polymer coating to keep the electronics from the hosts' immune system, as well as to keep the chip clean. We didn't expect to have a great range with them, nor did we expect them to overheat when pushed to maximize the radio range.

"We understand the problem of battlefield communications and personnel location if they are wounded or captured. So miniaturizing communications with position awareness devices that can be worn on or in the human body is very desirable. But this technical approach is just too limiting and, as you saw, not without its drawbacks. I am afraid I must tell you this is a dead end approach, quite literally."

The Major nodded his head and reviewed, "Our first generation of wearable communication devices weren't bad so long as you didn't forget to put it on or lost it. We needed to be confident that the device would be on or, in this case, in the individual as a *set and forget* technology. Implanting the chips seemed the best way to track the individual. Placing the chips

near the auditory canal should have made it convenient to the host for speaking and hearing battlefield commands.”

“So, doctor, what about the soldiers who tore at their ears, or those we found bleeding from their ears? How would you explain that finding?”

The doctor explained, “Well, it looks like there was no thought given to volume control when the power was boosted. Some were getting good reception at the same time some weren’t. When the power was boosted, those with the best reception essentially had their units turned up so loud that the communication reached hyper-pain levels that had them clawing at the devices trying to remove them. Those soldiers simply experienced a sonic boom inside their auditory canal that ruptured everything.”

“So it’s back to the drawing board, huh? This was not what I wanted to report back to division headquarters. Device placement and a volume control would be critical from a centralized location.”

Chapter 3 –It seems so unjust that criminals get so much help than regular citizens

...The Enigma Chronicles

As a part of his standard process, Jacques Bruno reviewed the most recent notice on criminals from the Interpol Watch List. Each of the one-pagers identified the culprit, the crime, last known location, possible destinations, and background summary. He had captured many a criminal by consistent review of the watch list. As the Interpol Chief in Zurich, Bruno made it a point to stay briefed and make certain his team kept abreast of current events everywhere in Europe. The Top Ten List changed based on several factors and that included movement between countries.

Two of the criminals added to the most recent list had known affiliations with a splinter militant Islamic group that claimed responsibility for several deaths from bombs in London, Paris, Munich, and Hamburg. One of Bruno's closest associates in Interpol had been killed in the Paris bombing incident, which made the search for these criminals personal. The two men were identified as traveling together, a last known address in a poor neighborhood in Paris. They had simply vanished the morning of their pending arrest.

Oxnard Kassab, at first glance, seemed unlikely. He was from a reasonably good family in Iran, with some formal education at Oxford, and great interactions with his fellow students from all over the world until illness in his family sent him home. Several years later this devoted Muslim, identified as a leader in an al-Qaeda factional group, became a force against Western cultures. Oxnard was very vocal, very dangerous, and to date, elusive for capture. He had been captured once in London where his prints were taken along with the photograph provided in the summary. His known associates were primarily al-Qaeda affiliated members along with known arms dealers throughout Europe and Asia. Several aliases were listed, so he was apparently

connected with someone skilled in providing suitable identity papers. It was noted that he was vehemently against the United States, which was standard for most al-Qaeda members.

The other man was identified as Salim Bashir. His education was unknown but he was also a Muslim zealot with a history of petty crimes, having been arrested in several cities in Europe, but with the ability to pay his fines to avoid incarceration. He had only been jailed for a total of one month for six incidents. His affiliations were not listed nor was there any direct connection with Oxnard outside of the neighborhood in Paris from which he had vanished. With no real evidence, it was presumed they had teamed together on the Paris incident that had killed his friend. At the very least they should both be apprehended and questioned, perhaps providing other leads.

For all the years Bruno had been connected to Interpol, this was the first time a close associated had been caught in the crossfire. This caused him to be more focused on the list from the viewpoint of trying to find leads that others might have missed. He had put out feelers to all his informants to see if additional information could be garnered. After two weeks, no additional information had surfaced, but he kept searching under all the rocks. He'd even detained a few others that fit specific profiles to see if their sources might prove helpful. Like most agencies, Interpol rallied everyone when one of their own was taken out.

Zurich was in a quiet period for international visitors, so Jacques had accepted a lunch invitation from his childhood friend, Quip. They had tried for several weeks to have lunch and catch up on friends and family. Bruno hadn't seen Quip since Ferdek's funeral, so he wanted to make the effort. Ferdek had been like a father to Bruno, as well as Quip and Quip's brother, and had been a good mentor. Bruno knew he could count on Quip for some ideas with regards to how to look for and ideally apprehend these fugitives.

01010101010101010

Quip arrived at the restaurant to see Jacques already seated in a corner with not only a good view of the room but also of the entrance. He smiled and realized how predictable his friend Bruno was as he strolled to the table.

Quip extended his hand, “Bruno, my friend, how are you?”

Bruno shook hands as he partially rose. “Fine, my friend. So glad we could finally align our schedules. Please sit. Let’s order and spend some time catching up.”

As if on cue the waiter appeared and took their beverage orders as well as listed the specials of the day. They each selected one of the specials. To these two men, food was necessary and enjoyed, but not worth wasting time over selecting.

“Quip, how is your brother and the rest of the family? I almost feel guilty not touching base to see how you, since um ... well, you know.”

“Things have been busy and actually fairly good, Bruno. Yes, there are changes but isn’t that part of life? I am working hard on some technology inroads and even expanding efforts to secure new clients. You know me; I enjoy tweaking technology and solving problems. And you, Bruno, what has your brow wrinkled and caused the extra stress lines? Has some bad guy stolen your favorite parking place at the office?”

Bruno chuckled, “You always lighten things up! I am never at the office, so how would I know who parks where. As long as I don’t get a ticket, I am doing ok.”

They chatted back and forth like the old friends they were, updating on current events. Their lunch arrived and they continued the friendly banter. After the plates were removed and coffee was served, Bruno became serious, which immediately alerted Quip.

“One of the reasons I wanted to see you was of course to catch up, which we do far too infrequently, my friend. The other reason is that I was hoping you might help me a bit. It is somewhat personal.”

“Of course I can be your best man, but I had no idea you were even dating,” offered Quip without missing a beat, knowing it would lighten his friend’s serious expression. “Oh, thank heavens, it’s not that,” he added as he saw Bruno shake his head. “Tell me all then so I can cease my wild guesses.”

“An old friend I worked with for years on and off headed up the Paris office. He was recently involved in an event and killed. Two suspects recently showed up on the Interpol Watch List with high probability of being involved in the incident. The problem is they have vanished, but even without being there or questioning these men, I feel compelled to help at least bring them in for thorough questioning. With the ongoing problem with Taliban related groups and violence in Europe and the United States, I and my team always keep an eye out. However, with Pierre Renaud now a casualty, I want to do more.”

Quip recognized the conviction in his friend’s voice as well as the determination in his eyes. He mentally reviewed the recent Watch List that ICABOD had absorbed a week or so ago. As a matter of standard process, he had added uploading of the list to leverage the facial recognition element of ICABOD. With all the data sources ICABOD was tasked to use, it was always possible that he could offer locational information on any of the wanted suspects from Interpol lists to the FBI Most Wanted. ICABOD had them all.

“I am sorry to hear about your colleague, Bruno. It is always a blow when one of the good guys get taken down. I will of course keep an ear to the ground and even put out a few

feelers if you think that might be useful. Can you perhaps provide me a bit of detail on Pierre Renaud and the suspects you feel are culpable?"

"Quip, I can and will as soon as I return to my office. Is the secure drop-box you provided me long ago still available and secure? If not, I can bring it by Wolfgang's house tonight on my way home."

"It is still available to you, my friend, though Wolfgang would enjoy seeing you, I'm sure."

"Ok. If it looks like I will get home at a reasonable hour, I will take it by and say hello. Otherwise, I will call you and let you know if I am going to use the drop-box. Thank you, Quip."

"No problem, my friend, I am happy to try to help. I do need to get back to work, however we need to do this again soon," Quip responded as he signaled the waiter for the check.