

(Photo courtesy of Eric Barbeau via Unsplash; modified by author)

Saving Taipei: 2036

Maj. Justin R. Davis, U.S. Air Force

Emma Yoda: The Cyber Master 1500 EST, 5 January 2036 Offensive Cyber Ops Floor, CYBERCOM, Fort Meade, Maryland

Emma threw off her headset, knocking over her desk pen holder; she raised both hands in excitement and shouted, "GOT IT!"

"Shhhhhhh!" Liam leaned back in his chair, peered around the shoulder-height partition into Emma's cubicle and whispered, "Got what?"

"I just secured an administrator login for the Taipei subway surveillance network!" answered Emma.

"Wait! What?" Liam sat up, scooted his chair around the partition, and whispered, "That's awesome!

But we handed that over to the NSA; they were running point on this. If the colonel finds out—"

Emma interrupted, "He won't find out. Unless I tell him ... which I won't, but I might. Should I?"

Liam looked shocked and then shook his head in disbelief. "We'll talk about that in a second, but let's rewind the tape. How did you do it?"

As Emma gathered up her pens that had fallen out of her desk pen holder, she explained, "Well, you remember how last week you were able to get user rights into the subway network?"

"Yeah," answered Liam. "But I thought it was just a low-level user account with no access to the actual surveillance system."

In her best Yoda impersonation, Emma said, "Truly wonderful, the mind of a child is."

Liam rolled his eyes. "Okay, Master Yoda, teach me your ways."

Emma looked around the ops center to see if anyone was listening in and then leaned in. "You remember how the user account could remote-in to other users on the network?"

"Yeah, but you needed to pair a username with a computer name to be able to do that, right?"

"Indeed. You do. You wouldn't believe the lack of OPSEC displayed by whoever they got from China to run Taiwan's infrastructure. You think they would at least—"

"Emma!" Liam interrupted. "The admin account."

"Oh yeah, sorry." Emma leaned in again. "So I monitored their tech support chat room used to trouble-shoot common system errors and was able to identify an admin user. This user, who apparently has lots of computer problems, got transferred to a private chat with tech support. He must have been giving his computer name to tech support so they could remote-in and fix whatever issue he was having, but instead of posting the computer name to the private chat, he posted it in the main room! So, I already had his username, and that gave me his computer name."

"But that doesn't give you admin access," Liam said. "It just gives you the ability to remote-in to his computer. If he's at his desk, he'll see you. Nice try."

Emma sat up and tried out her Yoda voice again, "Do or do not, there is no try." She leaned back in and said with her normal voice, "That's not the end of the story, bozo."

Liam rolled his eyes. "Continue."

"The next day, before he got to work, I remoted-in to his computer and wrote a glitch into his system. I made it so every ten minutes, his computer randomly restarted. Then, I spoofed his VOIP phone to reroute any phone calls he made to my computer."

Liam sat up, and his eyes were wide open. "Are you crazy? What if he ran a backtrace on the phone call? That would have led him here, to CYBERCOM!"

Emma sat up. "I'm not stupid; I covered my tracks. Besides, based on his displayed ability with computers, there's no way he would even know how to do that."



(Photo courtesy of Bradfeldman via Wikimedia Commons; modified by author)

With a mocking tone, Liam said, "Alright, Emma, next you're going to tell me that you speak Mandarin, right? You know, since if his call went to your computer, and you haven't told anyone about this other than me, you'd be the one who would have to talk to him!"

Emma looked surprised and said, "Ni gè sha mào. How long have we worked together?"

"You speak Mandarin?" Liam was astonished. "I thought you were from Kansas?"

"My mother is Chinese; my father is a Kansas farm boy. Can we get back to my story?" snapped Emma.

Liam leaned back in with an intrigued look. "Yes, please."

Emma leaned in to meet him and said, "So after about an hour, his computer had restarted six times. His computer was never logged in long enough to log in to the tech support chat room, so he picked up the phone and called tech support instead. I answered the phone, listened to his problem, and then told him that I needed his username and password to remote-in to his computer. Can you believe he gave it to me?"

Liam's jaw hit the floor. "Wow ... just wow."

"I remoted-in, fixed his computer problem, fixed his phone, and he thanked me!" Emma leaned back in her chair and put both hands behind her head. "Can you believe that?"

"That's amazing, Emma. You really are like Yoda, which would make me Luke Skywalker. I'm good with that."

Emma laughed, "More like Jar Jar Binks!"

"Funny. Very funny." Liam leaned back into Emma. "You have to tell the colonel."

Emma looked worried. "I can't; he'll be pissed! I might be transferred off the team or lose my job!"

"Emma, you know the quacks at the NSA haven't gotten as far as you have. Having admin access to the Taipei subway surveillance system is huge! Think of all the civilians stuck in Taipei, think of all the U.S. soldiers outside the—"

Emma interrupted him, "Alright, alright. I'll tell him." Emma and Liam sat up in their chairs and turned around to meet the colonel. To their surprise, the colonel was standing right behind them on the platform overlooking the ops floor. His arms were resting on the guardrail, his feet were crossed, and he was looking right at them.

"Tell me what, Emma?" said the colonel.

Emma and Liam looked at each other in astonishment and then looked back at the colonel.

Emma walked up to the platform and said, "Well, sir—"

"Colonel," Liam interrupted as he walked to the platform. "Did you know Emma spoke Mandarin?"

A21 Huanbei Station 0005 TST, 12 January 2036 A21 Huanbei Station, Taoyuan, Taiwan

The driver made a sharp U-turn, abruptly stopped, put the Humvee in park, and turned to look over his right shoulder. There was Jake, sweating, looking down and fumbling through his fanny pack frantically. The driver cleared his throat to get Jake's attention and said, "We're here."

Jake looked up with a puzzled look on his face. "We are? A subway station? I was expecting something a little more—"

"A little more military?" interrupted the driver. "Well, it turns out subway stations make for excellent protection from the Chinese long-range artillery; although, that's mostly stopped now."

Jake looked back down and continued to fumble through his fanny pack. "Does this hunk of metal have a light back here?"

The driver reached for the light switch next to the steering wheel and flicked it on. "What are you looking for?"

Jake moved his fanny pack out of his lap and on the seat next to him, then his eyes turned to the floor. "Ahhh, here it is. Must have fallen out of my fanny pack on the rough ride." Jake leaned over and grabbed a black rectangular device and turned it on.

The driver had a dumbfounded look on his face. "What is that thing?"

"It's a GPS receiver," answered Jake. "You've never seen one of these before?" Jake stepped out of the vehicle and extended his GPS receiver in the air.

The driver turned his head slightly, with a curious look on his face. He waited about ten seconds, then turned off the Humvee, stepped out of the vehicle, shut the door, and walked over to Jake. "You kn-o-o-o-w—" The driver's voice slowly trailed off as Jake interrupted.

"Lieutenant Jaffe gave it to me right before we left. He told me to make sure I got an initial fix before I went into the command center."

The driver quietly chuckled to himself.

"This sure is taking a while." Jake dropped his arm and looked at the screen.

The driver smiled and said, "Did you do something to piss off Lieutenant Jaffe?"

Jake looked up at the driver, puzzled. "I was only with him for an hour; I don't see how I could have. Why?" Jake looked back at the GPS receiver for a few seconds and then put his right arm back up in the air.

The driver let out a sigh and said, "You know, that thing is not going to work out here."

Jake kept his arm in the air and looked toward the driver. "Why not?"

"Well, for starters, your mission is in the subway tunnels, and you won't have a—"

Jake interrupted, "Yeah, I know that, but he gave it to me in case I got separated from the group on our way back from the tunnels."

Annoyed by all of Jake's interruptions, the driver said, "And the second, and the more pressing reason is that all the GPS satellites are no longer functioning. Six days ago, the Chinese launched

Maj. Justin R. "RIOT"

Davis is an airpower strategist for Air Force (USAF) Futures at the USAF headquarters. He holds two master's degrees from the Command and General Staff College and the School of Advanced Military Studies, an MS from the University of Southern California, and a BS from the University of Kansas. He is a career A-10C pilot with over two thousand flying hours, including over 750 combat hours in Afghanistan, Iraq, and Syria.



(Photo by Staff Sgt. Madelyn Brown, U.S. Air Force; modified by author)

an antisatellite weapon at a few of our GPS and ISR satellites."

Jake dropped his arm. "Yeah, I had heard that on the news, but I thought they only hit four satellites?"

"That's true. I don't understand it all, but somehow the debris from those four satellites hit other satellites, and it sort of cascaded from there," explained the driver. "And, well, now your GPS doesn't work."

"Wow. I didn't realize the extent of the damage." Jake's surprised look slowly turned into a look of disgust. "Why did Lieutenant Jaffe do that to me?"

"Oh, sir, I wouldn't worry about it," answered the driver. "I'm sure he was just having a little harmless fun."

Jake leaned into the Humvee to grab his fanny pack from the back seat.

The driver whispered under his breath, "Or, he just doesn't like loud, arrogant reporters."

Jake pulled his head out of the back seat, shut the door, turned around, and strapped on his fanny pack. "I'm ready to go."

The driver looked Jake up and down with a smirk on his face and said with sort of a mocking tone, "Yes, you are, sir." The driver raised his hand and pointed toward the station, "Go up those stairs into the station, take a left, then head downstairs to the platform level. The captain's expecting you."

Jake started to walk toward the station entrance.

"Hey, sir—" Just as the driver started to talk, a loud jet noise interrupted him. Jake and the driver looked up, right as two F-35Ds flew over their heads, following their takeoff from the nearby Taoyuan International Airport.

The jet noise faded off into the distance as Jake looked back at the driver, "You were saying?"

The driver smiled, "If you're really worried about getting lost out there, ask someone for a map and a compass!"

This is NOT Combat 0012 TST, 12 January 2036 In the skies over Taoyuan and Taipei, Taiwan

RIOT lit his afterburner and began his takeoff roll on runway 23L from Taoyuan International Airport. After getting airborne on his twentieth combat mission over Taipei, RIOT raised his landing gear and began his departure turn to the south.

Primary radio: "Panther 1, check."

His wingman, Globe, excitingly responded, "2!"

Primary radio: "Kingpin, Panther 1."

Primary radio: "Panther 1, Kingpin, I have

you loud and clear, you are radar contact, go radio silent and standby data."

RIOT waited about ten seconds and received a message from Kingpin:

PANTHER 1, KINGPIN

RADAR CONTACT

IFF MODE 6/DATA LINK: SWEET/SWEET

PICTURE CLEAN

CLEARED DIRECT THE TAIPEI ROZ

ALTITUDE 20 BLOCK 25

MISSION: XCAS (AIRBORNE CAS ALERT)

MONITOR ASOC, C/S TRINITY ON

TAD 15

KINGPIN OUT

Primary radio: "Kingpin, Panther 1, good

data, leaving your freq."

Secondary radio: "Push TAD 15."

RIOT reached up with his right arm and changed the radio to TAD 15.

Primary radio: "Panther 1, check."

Primary radio: "2."

Primary radio: "Trinity, Panther 1."

Primary radio: "Panther 1, Trinity, I have you

loud and clear, go radio silent

and standby data."

"New message," displayed on RIOT's helmet-mounted display. He acknowledged the prompt and looked down on his right screen at the message, which read:

PANTHER 1, TRINITY



(Photo courtesy of Andrea De Santis via Unsplash; modified by author)

PUC 12C

TARGETS: Targets of opportunity outside of

Taipei

THREATS: Tactical Mobile SAMs,

MANPADS, AAA

FRIENDLIES: All friendlies North or West

of the Tamsui River

ARTILLERY: All PAAs are COLD

CLEARANCE: Digital clearance through

JTAC, C/S ICEBOX 69

ORDNANCE: Best

RESTRICTIONS: No ordnance approved within the Taipei metro

district unless specifically authorized

TASK: Scan three subway stations for pre-

pared defenses and report:

Dingpu Station: 51R UH 40352 60970 Bitan Station: 51R UH 51273 62928

Xiangshan Station: 51R UH 55774 69302

RIOT acknowledged the message and let out a deep sigh. "You got to be kidding me, another sixhour sortie, and we're tasked to scan three subway stations?"

"Well—" Globe paused, trying to come up with an upside, then continued. "Look on the bright side; we're logging combat hours!"

"True. Although, compared to what we did in the first few weeks, this is NOT combat." RIOT leveled off in his F-35D, looked at his data link display, and saw Globe was still in a 2-mile radar trail. "2, you've got 23 block 25, I'll take 20 block 22. With the GPS not working, I'd feel a lot more comfortable if you were at a different altitude than me. Let's go ahead and set up a wheel over Taipei."

"2!" Globe initiated his climb, started a right-hand wheel over Taipei, and leveled off at 24,000 feet. "2's established 23 block 25."

RIOT leveled off his climb at 21,000 feet, started his right-hand wheel over Taipei, and set the autopilot. "1's established 20 block 22." He lifted both of his arms and rested them on the canopy rails while his F-35D did the flying. He looked out the right side of the canopy and could see all of Taipei. What used to be a megacity teeming with life—lights, auto traffic, air traffic, and cargo freighters—now seemed abandoned. The city was dark despite a cityscape filled with skyscrapers; no cars were moving on the roads. The only activity could be seen on the north side of Tamsui River that ran through Taipei and Taoyuan.

"Globe, look on the north side of the river. It's crazy how you can see our perimeter around the city. It's like a standoff."

He looked outside and saw the perimeter that followed the natural terrain between Taoyuan and Taipei. "Why don't we just start bombing the city? Surely that will drive the Chinese out!"

that our Army isn't built to fight in megacities. They know our political masters won't let us drop ordnance in the city. And they know not to leave the perimeter of Taipei; otherwise, we'll see them, and you might get your first combat employment!"

Globe got excited, "I wish!"

There was radio silence for a few minutes while



What used to be a megacity teeming with life—lights, auto traffic, air traffic, and cargo freighters—now seemed abandoned. The city was dark despite a city-scape filled with skyscrapers ...



RIOT smirked and keyed his mic switch so Globe could hear him laugh.

"What's so funny?" Globe asked.

"That city has eleven million Taiwan residents down there, who we're fighting for. It would sort of defeat the purpose if we started bombing the city." RIOT paused. Maybe he had been too harsh. "We're not at odds with them; we're at odds with the division of People's Liberation Army that's occupying the city."

Globe didn't respond initially; he was thinking of alternatives. "Okay, well, if we can't bomb them, why doesn't the Army just drive their tanks into the city and fight the PLA?"

"Well, that's not a half-bad idea." RIOT actually thought this was a horrible idea, based on Taipei's size, but Globe didn't know any better. This flight was only Globe's second combat mission, and he was eager, which RIOT couldn't fault him for. "That's what they did for the rest of the island, but Taipei is different." RIOT looked to the south of Taipei and toward the southern tip of Taiwan. It looked different. The cities had lights; he could see traffic on the highways. What was once a war zone had already started to look normal.

RIOT continued, "Down south and on the west coast, the Army could maneuver a bit, and the PLA continued to withdraw to the north. We also did a good job of funneling them away from the mid-size cities with joint fires. But we backed them up to Taipei, a giant megacity! Now the PLA hides in the high-rises and the subway tunnels. They're not dumb. They know

both RIOT and Globe scanned the three subway stations for any prepared ground defenses.

Globe started thinking about how no aircraft or SAMs were threatening them over Taipei, a mere one hundred miles away from mainland China. "RIOT, you flew in the first couple nights of the war, right?"

RIOT continued to look at his display, scanning Dingpu Station, while he responded, "Yeah, why?"

"How was it?" Globe asked, "I heard it was crazy busy."

"Yeah, you could say that." RIOT looked up from his display and toward the northwest. He could see a black abyss for about one hundred miles and then an explosion of lights over mainland China's coast. On the horizon, he could see Shanghai's lights to the north and Hong Kong's lights to the southwest.

RIOT continued, "We took off from Guam at midnight. The weather was crap. We were in radar trail for the first two hours until we had to refuel, and then we had to rejoin on the tanker in the weather. We stayed on the tanker's wing for another hour, where we got our top-off, and he dropped us off about three hundred miles from Taiwan. From there, it was about an hour of fighting Chinese S-400 (SA-21) SAMs while fending off J-20 fighters. Wave after wave of our F-35s and F-22s, as well as Navy and Marine F-35s, for a few weeks. And now, here we are, flying over Taipei relatively carefree."

"That's crazy," Globe responded. "I missed the bulk of the action by like a month. While you were shooting down J-20s, I was learning how to control those autonomous drone swarms in the skies over southern Arizona." "Yeah, we used those drones quite a bit in the beginning. They were great for overwhelming the SAM targeting picture. Now we don't need them anymore, and a lot of them got shot down."

RIOT shrugged his shoulders, "But that's what they were designed for."

"New message," displayed in RIOT's helmet-mounted display again.

Globe asked, "Did you ever get shot at by the—" RIOT interrupted his wingman. "Standby, 2." RIOT read the message and then grinned ear to ear. "Well, Globe, looks like you might get your first combat em-

The Briefing 0022 TST, 12 January 2036 JTF-Taipei Command Center A21 Huanbei Station, Taoyuan, Taiwan

ployment after all!"

Aiden stood at the bottom of a large set of stairs, three levels underground, waiting patiently. He looked down at his watch; a green holographic "0022 TST" appeared above his wrist, accompanied by a voice, "The time is zero-zero-twenty-two. Your next meeting starts in thirteen minutes." Aiden looked annoyed and uttered under his breath, "I know, I know. Where is he?" Just as he looked up to the top of the stairs, there was Jake rushing down the stairs.

When Jake was halfway down, he shouted, "Ahhh, Captain Wellington, I've been looking for you."

Aiden responded, "Mr. Denton, please. Call me Aiden."

Jake continued down the stairs, "Well, alright then, Aiden, you can call me Jake."

"Jake it is," Aiden said.

Jake finished walking down the stairs and stood in front of Aiden, "I apologize for my tardiness; I had to stop by the restroom. I'm a little nervous—"

Before Jake could finish, Aiden interrupted. "It's no problem, but we are running late." Aiden looked down at his watch, and the familiar voice said, "The time is zero-zero-twenty-three. Your next meeting—" He lowered his wrist, turned around, and started walking. Aiden turned to look over his right shoulder at Jake, who was still standing there adjusting his pants, and said, "Come on! Twelve minutes until the briefing starts!"

Jake started jogging to catch up. "Okay!"

Once Jake caught up, Aiden asked Jake, "So, you work for CNN?"

"Yes, I do. I'm attached to the Taiwan office out of Taipei."

"I see." Aiden looked down at his watch. "The time is zero-zero-twenty-five—." Aiden lowered his wrist and looked at Jake. "So, how did you get this assignment? I imagine your whole office was itching for this story!"

"Well, I was on holiday in Singapore when the Chinese invaded. That was ..." Jake looked up at the ceiling and scratched his head, "... about two months ago. While I was on holiday, the rest of my office was in their headquarters in Taipei, where they still are."

Aiden stopped walking and looked at Jake. "I'm sorry to hear that."

Jake stopped with Aiden, "Oh, it's alright. I assume they're fine. Although, we haven't heard from them, and they haven't put out any stories in the last two months."

Aiden continued toward the briefing; Jake followed. "You know, the Chinese are notorious for censoring the media. The fact that your office hasn't put out any stories does not surprise me."

"Yeah, I've heard that," responded Jake, in sort of an upbeat tone, "Anyway, back to my story."

"Yes, please," responded Aiden.

"I was at a nice pub in Singapore and saw the news. Terrible, just terrible. I needed to get back, but I figured there would be no way. So I booked a flight to Tokyo, Japan. I linked up with our CNN office in Tokyo and worked with them for the last two months. Two weeks ago, I wrote a rather pro-military piece on how you guys had liberated nearly all of Taiwan, except Taipei, of course. About two days later, my boss called me in his office and told me I was headed on this assignment. I don't know if it was the piece I wrote or that I'm the only one from the Taiwan office not in Taipei, but I couldn't believe it. I flew into Kaohsiung International Airport two days ago and last night rode a military taxi—a rather rough ride, I might add—all the way here ... four hours, it was painful."

"Well, we're glad you're here." Aiden turned the corner; the briefing room—made of glass walls—was right in front of them. The doors were closed. "Great, they started early. Why do they always start early?"

Jake looked embarrassed and nervous. "Should we wait outside?"

"No," Aiden snapped. "If you're going to be on that mission, you have to be in that briefing. We'll sneak in the back. Let's go."

Aiden stopped at the double doors and turned back to look at Jake. "Try and be quiet during the briefing; the general hates interruptions."

"Okay." Jake and Aiden walked through the double

Tank looked at Jake and interrupted him. "The name's Tank. Now, pay attention."

Jake snapped his head to the briefer and said, "Yes, sir." Tank looked up at the colonel, "Alright, colonel, I can look outside and see the weather; jump to the part where you brief the CONOP."

"Alright, sir." The colonel looked over to his slide



Alright, sir. As you know, we've been at sort of a standstill with the PLA for a few weeks. This morning, that standstill will end with a major joint offensive into the Taipei metropolitan area.



doors; the meeting was already in progress. A colonel was up front, briefing to a crowded room filled with joint and multinational officers. In the front row sat Lieutenant General James "Tank" Savage, the JTF commander.

Aiden spotted two empty seats in the back and headed that way. "Come on."

Jake followed Aiden toward the back but continued to look toward the front of the room at the briefer.

"Watch out!" someone whispered from the crowd. Still looking toward the briefer, Jake caught his foot on a leg of a chair and stumbled forward a few steps.

Aiden turned around to look at Jake and saw Tank standing at the front of the room, looking directly at him.

"Captain Wellington!" Tank barked.

Aiden responded with a nervous yet confident tone, "Yes, sir."

Tank again barked, "You're late!"

Aiden, feeling brave for some reason, looked down at his watch, "The time is zero-zero-thirty-seven. Your next meeting starts in three minutes." In the quiet room, with all eyes looking at him, the watch voice seemed to shout.

Tank heard Aiden's watch and barked, "If you ain't five minutes early, you're late! Bring your embed up here; I've saved him a seat."

Aiden looked at Jake, who had a very nervous expression on his face. "Good luck. I'll see you after the briefing."

Jake turned around, walked to the front of the room, and took his seat next to Tank. Jake said sort of sheepishly, "Good morning, General Sav—"

clicker and said, "Go to slide twenty-five."

The large screen behind the colonel displayed an aerial view of the greater Taipei metropolitan area. There was a subway map overlaid on the image, with major rivers, terrain features, and highways labeled.

The colonel began the briefing, "Alright, sir. As you know, we've been at sort of a standstill with the PLA for a few weeks. This morning, that standstill will end with a major joint offensive into the Taipei metropolitan area. Before I get into the different phases of this operation, I'd like to remind you of our force disposition across all domains. In the space domain, nearly all of our low-earth and medium-earth orbit satellites are still inoperative and will be so for the foreseeable future. Of note, this primarily affects our GPS constellation and our ISR satellites. Our SATCOM satellites out in geostationary orbit are still operative, for the time being." The colonel paused to make sure Tank had no questions.

Tank nodded at the colonel, "Go ahead, colonel."

"Alright, sir. Moving on to the air domain, we effectively have air superiority over Taipei, thanks to the tireless effort by the Air Force, Marines, and Navy in the opening weeks of this conflict. Currently, no strategic Chinese SAMS can range Taipei. We have a continuous SEAD and counterair presence overhead, ready to strike in case they reconstitute any of their SAM sites or send any fighters our way. In addition, F-35s from the joint force are spread out throughout the day in an airborne CAS alert status. Of note, it's important to realize that while we have air superiority, due to political restrictions, our traditional air assets,

other than some niche ISR capabilities, have no game within the city of Taipei. More on this later."

Tank looked over to Jake, who was taking notes furiously. "Jake, any questions so far?"

Jake put down his digital pen and tablet, "No questions so far, General—I mean, Tank."

Tank nodded and looked back up at the colonel, "Continue, colonel."

"Yes, sir. In the maritime domain, the Navy's blockade of the Keelung City Port is holding steady. The U.S. Navy, with heavy assistance from our coalition naval partners, continues to patrol north and south of Taiwan, keeping any Chinese naval assets from reaching Taiwan." The colonel paused and looked at Tank.

Tank gave the colonel a nod, "Okay, continue."

"Moving on to the cyber domain; our offensive cyber mission teams that are aligned to us from CYBERCOM have done the lion's share of the work. Their primary feat, thus far, was to shut off power to the city. Other than that, they have worked around the clock to covertly gain access to the PLA's computer systems that are still powered by their extensive farm of emergency backup generators, operating und—"

Jake looked up at the colonel and interrupted, "Why haven't you just bombed the generator farm?"

Tank looked over at Jake and gave him a look of disdain, which went unnoticed.

"Mr. Denton, I was getting to that," the colonel said with a tone of annoyance. "The generator farm is underground, in the Taipei subway system. Up until this past week, we were unsure where their source of power was coming from. But a week ago, we gained access to their subway surveillance system and were able to ID the generator farm located in the subway tunnels underneath their division HQ. More on this later."

Jake looked down to jot down the colonel's response on his tablet. While still looking down, he said with an authoritative tone, "Okay, thank you, continue."

Amazed with Jake's response, the colonel looked at Tank, who looked like he was restraining a violent outburst.

Tank looked at the colonel, took a deep breath, and calmly said, "Please continue, colonel."



(Photo courtesy of William Daigneault via Unsplash; modified by author)

"Yes, sir. And finally, we move to the land domain. Our forces are arrayed in a defensive perimeter, oriented along the Datong Mountains on Taipei's west side. To the South of Taipei, our defensive perimeter is oriented along Highway 9 that runs east-west through the mountains. So, other than the PLA on the inside of our Taipei defensive perimeter, the rest of Taiwan is in coalition hands. Sir, if there are no questions on our current force posture, I'll continue to the CONOP."

Tank looked at Jake and said with a sort of mocking tone, "Mr. Denton, sir, any questions?"

"No questions; I'm eager to hear the plan," said Jake. The colonel began. "Alright, sir. As you know, we've heavily utilized our AI planning system, nicknamed 'HAL,' for this CONOP. The goal of our—"

"HAL?" Jake interrupted.

The colonel answered Jake, "Yes, HAL, you know, from 2001: A Space Odys—"

Jake cut off the colonel. "Yeah, I know the reference. But what is it? HAL just gives you a plan, and you blindly follow it?"

"No, sir. HAL is effectively part of our planning team. We provide the overall objective, intent, and forces available; HAL provides a range of solutions that he wargames and analyzes, based on COA decision criteria that we provide. Within minutes, HAL gives us several COAs to consider and provides a recommended COA."

Jake looked down at his tablet and scribbled down a note. "I see; very interesting."

The colonel continued, "In this case—an operation within a megacity where nearly eleven million people are being held hostage—our overall intent that we gave HAL was to sow chaos and present the Chinese multiple dilemmas in all domains while keeping collateral damage in the city to a minimum."

The colonel walked to the other side of the stage and continued, "The first step of sowing chaos—and the near-term objective of this morning's operation—is to

cut off power from the generator farm to the PLA division HQ. The PLA division in Taipei is highly reliant on comms from mainland China; disconnecting that link will hinder its ability to command and control its forces. Now, this generator farm is isolated from any virtual network, so we have to cut it off physically—on site. Which presents an obvious challenge."

"Point taken. Actually, several challenges." The colonel turned to the slides and started pointing as he talked. "The first challenge is that the most

direct route to the center of the city, where their HQ is located, has two brigades of PLA infantry deeply entrenched in urban terrain, in the way. This forces us underground, which presents the second challenge. Aside from a subway map that you can pull off the internet, we don't currently have a high-fidelity map or an accurate force disposition of the Taipei underground. The hacked subway surveillance system gives us some idea, but nothing we should risk our soldiers' lives on. There are more challenges, all of which are either solved or mitigated by our plan."

Jake quickly noted to the colonel, "You mean HAL's plan?"

"No, Mr. Denton, OUR plan, which I'll get to now." The colonel turned to look at the slides and continued to point along with the briefing. "In the first phase of the plan, the Air Force will launch twenty Tomahawk drone deployer missiles from Guam on Taipei, with a TOT of 0300 TST, this morning. Each missile will air-deploy forty MQ-10 multipurpose miniature drones at an altitude of one hundred feet. Once the eight hundred MMDs are deployed, they will self-organize, based on location, into twenty separate swarms. They will gain access to the subway system at multiple preprogrammed sites throughout the city and begin mapping the underground. As they fly through the subway tunnels, their multi-spectral sensors will publish

real-time data to the Joint All Domain Operations Common Operating Picture. Their sensors will primarily scan for subway physical specifications, air composi-

tion (including chemical particulates), and the location, size, and loadout of any personnel operating in the subway tunnels."

"Certainly some, if not a lot, of these drones will be destroyed by the Chinese. Isn't there a risk of the drones falling into the wrong hands?" asked Jake.

The colonel turned to look drone is forced to stop for any

at Jake and said, "Each MMD is programmed with an auto self-destruct feature. If the reason outside its intended path, the self-destruct feature will initiate, and the sensitive

electronics will be destroyed. The explosion is small enough to fry the electronics but not large enough to harm anyone nearby."

Tank followed the colonel up. "Besides, in the grand scheme of things, these MMDs cost pennies compared to the F-35s flying overhead the city right now. If we can get them back, that's great. But they upload to our COP in real-time, so if we lose a few of them, no one will lose any sleep. Continue, colonel."

"To deceive the enemy and present him with multiple dilemmas, our forces will perform one feint and one amphibious assault." The colonel turned to face the map and pointed on the west side of Taipei. "First, the Iron Rakkasans of 3rd Battalion, 187th Infantry, will conduct a feint on the west side of Taipei. The PLA has placed the preponderance of their defenses on the west side of the city, as they expect our attack will come from the west; this makes it a perfect deception plan."

The colonel now pointed at Keelung City, approximately twenty miles to the northeast of Taipei. "At the same time, III MEF will conduct an amphibious assault on Emerald Bay Beach and the Pa-tou-tzu Fishing Harbor to the West and East of Keelung City. Initially, this assault is to draw PLA forces away from Taipei; however, in follow-on phases of this operation, III MEF will play a more integral role in Taipei's liberation. Once the MMDs have mapped the subway system, and

(Photo courtesy of Cryteria via Wikimedia Commons; modified by author)

the feint and amphibious assault are underway, the infil will begin. Three light infantry companies from 1st Battalion, 187th Infantry, will air assault to three separate tunnel entrances on the south side of Taipei."

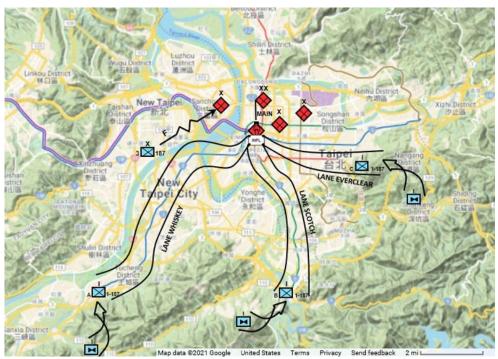
The colonel turned to the map and pointed at the three locations. "Alpha Company will infiltrate the Dingpu station on the southwest side of the city. Bravo Company will infiltrate the Bitan station on the south side. And Charlie Company will infiltrate the Xiangshan

station on the east side of the city. These three companies will infill on thirty-six Defiant helicopters operating in whisper mode to mask their approach. Ten minutes prior to infil, the cyber mission team will effectively lock the PLA out of the subway surveillance system. So, unless they physically disconnect the hardline, we will be able to monitor their surveillance system, and they will not. One minute prior to their infil, two F-35Ds will employ low collateral bombs on prepared defenses at each infil site. In addition, the Defiant helicopters will be escorted and supported by several flights of Raider attack helicopters. I'll pause for any questions."

Tank looked at Jake, "Mr. Denton?"

Jake responded with wide eyes, "No questions right now; I'm just taking it all in."

"Very well. Once Alpha through Charlie Company of 1-187 IN are in the tunnels, they'll utilize the information obtained by the MMDs to plot their course to Taipei Station, beneath the division HQ. They'll follow three infiltration lanes: Lane Whiskey in the west, Lane Scotch in the south, and Lane Everclear in the east. In case of obstacles in the tunnels, one platoon of sapper engineers from the 21st Brigade Engineer Battalion will be assigned to each infantry company. Once they hit their link-up point, the sappers will rig the explosives for the



(Map courtesy of Map Data ©2021 Google; modified by author)

generator farm, and the three companies will exfil through their respective lanes. Now, the final move to complete this phase is for 2nd Battalion, 187th Infantry, to complete a deliberate wet-gap crossing across the Tamsui River. Once their wet-gap crossing is complete, they will move into position at the same tunnel entrances that 1-187 IN infiltrated through. Phase one is complete when 1-187 IN conducts a rearward passage of lines through 2-187 IN."

"Alright, colonel. You can stop there." Tank walked up to the stage and faced the crowd. "Mr. Denton, come up here."

Jake put down his tablet and walked up to the stage, next to Tank.

"Alright, team, the colonel just talked about this excellent plan designed to sow chaos in the enemy by cutting off their remaining source of power and ability to communicate to mainland China. This plan is deliberately complex; it maximizes the strengths of our joint and coalition partners; it leverages effects across all domains. Now, the one domain we haven't discussed yet is the information domain. Our narrative must be unified, and we must tell it to the world before China can spin a counternarrative. That's why I asked Mr. Denton to come on this mission."

Tank looked at Jake and put his hand on his shoulder. "Jake, you're going on one of the choppers and will

see firsthand the tireless efforts of our soldiers as they integrate with our joint force to accomplish this vital mission. You come home safe and then tell our true narrative to the world; the narrative that the free world will not stand for authoritarian regimes attempting to exploit small democratic nations."

Jake looked back at Tank and said, "Sir, I'll tell the truth about how I see it out there."

Tank smiled and replied, "Jake, this isn't China; I can't tell you what story to write. But I'm confident that you will see the effort that the men and women

of this coalition effort put forth to liberate nearly eleven million Taiwanese hostages and write the truth. Good luck."

Jake nodded at Tank. Tank looked at the crowd and said, "God speed. Dismissed." Tank began to walk away from Jake.

"Tank," said Jake as he took a few more steps toward Tank.

Tank turned around and said, "Yes, Mr. Denton."

Jake smiled and said, "Sir, do you happen to have a map and compass I can borrow?"

■

GLOSSARY

AAA—antiaircraft artillery

ASOC—air support operations center

CAS—close air support

COA—course of action

CONOP—concept of operation

COP—common operational picture

CYBERCOM—Cyber Command

GPS—global positioning system

IFF—identification friend or foe

ISR—intelligence, surveillance and reconnaissance

JTAC—joint terminal attack controller

JTF—joint task force

MANPADS—man-portable air-defense system

MEF—Marine expeditionary force

MMD—multipurpose miniature drones

NSA—National Security Agency

PAA—position area of artillery

PLA—People's Liberation Army

ROZ—restricted operating zone

SAM—surface-to-air missile

SATCOM—satellite communications

SEAD—suppression of enemy air defenses

TAD—tactical air direction

TOT—time on target

VOIP—voice over internet protocol

XCAS—on-call close air support

US ISSN 0026-4148