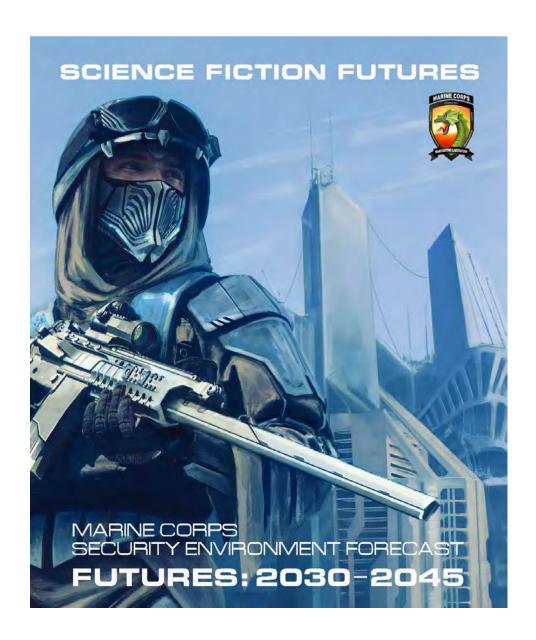
### SCIENCE FICTION FUTURES





SCIENCE FICTION FUTURES; MARINE CORPS SECURITY ENVIRONMENT FORECAST: FUTURES 2030-2045

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#### **Foreword**

The 2015 Marine Corps Security Environment Forecast: Futures 2030-2045 (MCSEF) provided a high level snapshot of the Marine Corps Warfighting Laboratory/Futures Directorate's continual examination of the deep future. The MCSEF was produced through modern foresight methodology, disciplined research, and a thorough international survey of background data and similar deep futures efforts. It augmented the Marine Corps Intelligence Activity's Future Operating Environment 2015-2025: Implications for Marines and sought to improve understanding of the challenge spectrum Marines will face beyond the next decade.



As we work together to improve the current Marine Corps, as directed by the Commandant, and create the future force envisioned in the capstone Marine Corps Operating Concept: How an Expeditionary Force Operates in the 21<sup>st</sup> Century, it is important to balance investment in capability requirements against multiple known, probable, and/or possible challenges over time.

Whether our goal is to sustain a better future peace or to prevail in times of conflict, we must make the best possible use of increasingly limited resources in an age of great change and uncertainty.

In this supplement, we take the broad worlds of the *MCSEF* and offer possible tactical- and operational-level vignettes of the distant future through the medium of science fiction. We proceed with full knowledge that we will not get it perfectly right; tempered with the understanding that we cannot afford to ignore possibilities that may come sooner than anticipated.

As we continue to think and work diligently to prepare for the challenges of the world we think we know today, we must leave room for imagination and creative anticipation. Our collective efforts to ensure the Marine Corps produces the right force in the right place at the right time demand we go beyond the relative certainty of today and prepare for possibilities beyond the knowable. Innovative approaches to anticipating the future such as the *MCSEF* and this supplement are well served by the imagination of the young writers that crafted this product. Open your mind and enjoy. The future is coming, ready or not.

Semper fidelis,

Julian Dale Alford

Brigadier General, United States Marine Corps

Commanding General, MCWL/FD

#### **Acknowledgments**

This collection of stories would not have been possible without the generous efforts of the people listed on the next page. All volunteered their time and terrific creative talents in bringing to life interpretations of the future worlds presented in the 2015 *MCSEF*. We hope their efforts have made these possible futures realistic for you, the reader.

This initiative would not have begun without the inspirational suggestions of Colonel Jonathan Dunne USMC and August Cole of the Atlantic Council.



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#### **Preface**

This is Marine Corps innovation. This is taking existing ideas, perhaps unrelated, and having talented writers-in-uniform turn them into riveting science-fiction stories in order to increase their impact.

In December of 2015, the Futures Assessment Division met with August Cole of the Atlantic Council *Art of the Future Project* and Colonel Jonathan Dunne USMC, Atlantic Council Commandant of the Marine Corps Fellow. What came out of that meeting was the idea that we could bring in uniformed service members for a one-day writing workshop with professional science fiction writers with the goal of bringing the *MCSEF* worlds to life. We put out a call for writers in the form of MARADMIN 023/16. Of the 74 applications that were submitted and screened, 18 were selected and notified via MARADMIN 049/16 to participate in the February 3, 2016, workshop. Max Brooks and Chuck Gannon joined August Cole in graciously donating their time to coach the writers and foster the narratives that came out of that workshop. Ari Popper of SciFutures lent his in-house science-fiction writer, Trina Phillips, to assist in editing the final stories, and Ari and Max also provided access to some of their terrific graphic artists.

The 2015 Marine Corps Security Environment Forecast: Futures 2030-2045 may be found at:

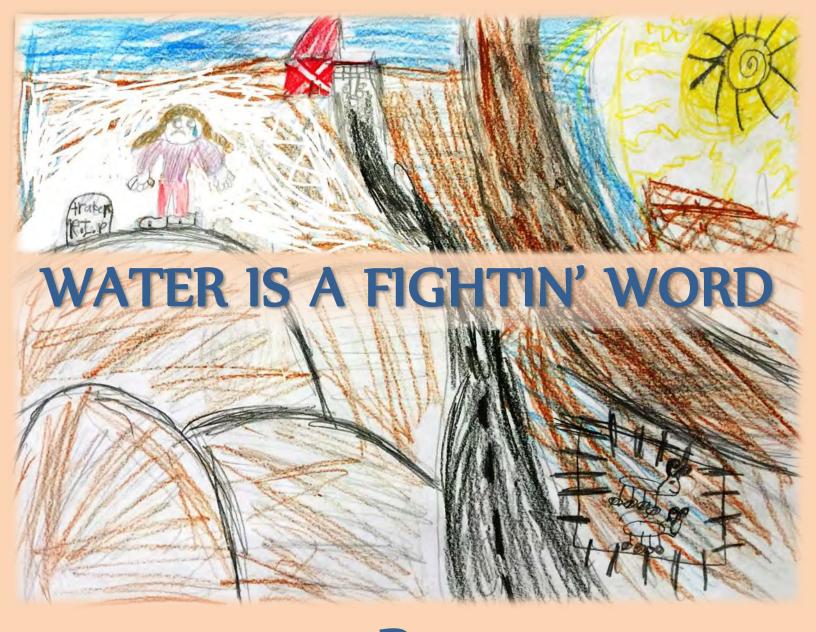
http://www.mcwl.marines.mil/Portals/34/Documents/2015%20MCSEF%20-%20Futures%202030-2045.pdf

The stories that follow are just detailed incarnations of three of the worlds articulated in that document. The worlds imagined in the *MCSEF* are vast. The three stories presented here are instantaneous glimpses into those worlds (a baseline future and two alternative futures) which could exist 15 or 30 years in the future... or sooner... or later. We hope that you, the reader, can be informed, inspired, and encouraged about the future. And that, should any elements of these futures come to pass, it will not be the first time that you have thought about these scenarios. In all reality, those lance corporals and second lieutenants who read this today will be master sergeants and majors as we approach these time horizons.

University of Hawaii Professor Jim Dator said, "Any useful idea about the futures should appear to be ridiculous." Good futuring is about projection, not prediction. It stimulates thought and debate. The best futures are the ones which prompt the reader to say, "That will *never* happen." It makes the reader consider the possible (and plausible) and apply rational thought to what events may or may not enable that world to come to pass. We don't have to get it right; we just can't afford to get it too wrong.

The difference with this effort, when compared with other similar efforts, is that the primary authors are *uniformed service members* with coaching from professional writers. Not only does this process make the authors better writers, but it gives the reader a focused lens through which to imagine the future. We did not contract writers to conjure a series of stories. These stories are written by your brothers and sisters in arms. We at the Marine Corps Warfighting Lab think there's something significant in that.

We hope you enjoy these stories as presented. As always, please share widely.



By
Lieutenant Commander
Molly Waters
USCG

#### Water is a Fightin' Word

About this world: Water scarcity results in massive domestic and international migration. The world is afflicted by an overwhelming lack of fresh water. The developed world is keenly aware of its daily water usage, while the developing world may go days without access to fresh water. A more introspective United States becomes an even greater destination for migration, forcing heightened efforts to restrict borders and strictly manage immigration and immigrant populations. China and India play increasingly larger global leadership roles and step up militarily to fill voids left by significant U.S. military drawdowns. Fresh water scarcity and overwhelming international migration, which at times overstress the coping capabilities of recognized governments, provide non-state actors with opportunities to become viable alternatives to traditional governance. The United States must rely more heavily on international partners as fiscal constraints and domestic issues grow more pressing.

### ear Steve: Mom shot Tracker today. She said the new water ration doesn't let us have enough for a dog.

His seven-year-old sister's voice sounded calm. The voice message accompanied her artwork, projected onto his visor. The colored pencil drawing depicted the family goat ranch in Greybull, Wyoming. Brown landscape, trickle of brown water in the ditch, brown grave marker for Tracker. Blue tears on the little girl's face as she prayed over the dog's burial plot.

Lance Corporal Steven West, USMC, maximized the image's opacity just before the tear broke free of his eye. The team didn't need to see him crying. Eugenia's reports were never easy, but the latest installment was a new low. Why am I here? It's as bad at home as it is here in Lagos. He closed his eyes and took a couple of deep breaths. Calm restored, he closed the message file and flipped up his visor.

The landing craft's interior was cool and dark. Stabilizers smoothed the ride across the choppy water. A red warning light indicated they were five minutes from the beach. Gunnery Sergeant Michelle Hitada stood and faced her team.

"All right, ladies and gents, quick update. A Red Cross relief facility was attacked at 0400 local. Map's loaded." The humans dropped their visors. A schematic of the city appeared, then zoomed in to a neighborhood within half a mile of the coast. A red diamond marked the compound. "We've got civilians injured and killed, water and supplies stolen, and medic and hydro bots missing. We're to secure the site, assess and mitigate damage, and recover those machines. Folks, this is a dry, desperate city. Keep your heads on swivels." The combat bots had heard the expression often enough that they no longer rotated their heads in response. "Any saved rounds or alibis?"

A bot piped up. "Gunnery Sergeant, what are the rules of engagement?"

"Thanks, Charlie Eight. Less than lethal. Go lethal only if a life threat cannot be dealt with otherwise. Keep in mind there are child soldiers of greatly varying skill levels. Other questions?" Silence. "All right. Last weapons check." Men, women, and robots checked their weapons and suits. The humans still had the old armor. West's helmet ignored his command, and he slapped it. Haltingly, it cycled through the mil-comms channels set up by the fleet's NavyNet gliders orbiting five miles above him, so he discreetly cued it to grab any local bandwidth as a backup.

The interior light turned green, and everyone stood and faced aft, weapons ready. They swayed as the craft grounded. Pneumatics dropped the ramp with a sigh, admitting blinding light and a blast of heat straight out of Hell's convection oven. Almost as one, the humans gasped and dropped their visors. West's helmet sealed, bathing his face in cool, clean air and shielding his eyes with a darkening tint. *Welcome to Hell*.

Gunny Hitada took off down the ramp, heat gun trained ahead. The team arrayed behind her, covering every sector. Set to stun, the millimeter-wave weapons instantly heated the water in an adversary's skin, producing a momentary burning sensation with no lasting damage.

They cleared the littered beach in less than a minute, and crossed into the city proper. Hot wind blew dust and trash in turbulent patterns. Everything was covered in grit. Lance Corporal West detected no signs of life amidst the dilapidated buildings and broken pavement. *How can anything be alive here?* Within five blocks, they arrived at what was no more than a pile of smoking rubble where a two-story building once stood.

Bleeding medics attended to bleeding colleagues and patients, dressing wounds with duct tape and rags torn from their own clothing. There wasn't a tube of suture glue or Patho-Flush in sight, let alone a roll of gauze. A row of bodies lay covered by torn and dirty tarps. Two International Committee of the Red Cross (ICRC) defender bots worked desperately to secure the perimeter against an ever-growing crowd of onlookers.

People ducked for cover when the up-armored Marines bounded on to the scene. It was the natural reflex of civilians everywhere they deployed, thought West; they just couldn't help it. Once the Marines and the bots began lifting rubble and debris no ordinary person could manage, the crowds returned as they realized the hulking forms were here to help, not harm. Gunny's voice came across the comms circuit. "Charlie Five, Charlie Six, assist in securing the perimeter. Charlie Seven, Charlie Eight, work triage. Hutchins, McCandliss, help the medics. West, with me." Humans and bots turned to their assignments with the same wordless efficiency.



A little girl that looked Eugenia's age sat on some broken masonry. A medic was bandaging her arm, and she had a large bruise on her cheek. The way she stared at them as they passed was unsettling. She looked calm, wise beyond her years. Very much like his sister's stony glare when the Wyoming Resources Authority patrols swept in at dawn to spot check the ranch's water consumption.

A harried, dust-covered woman with a tablet and bandaged eye had a comms unit to one ear and a finger plugging the other. She was attempting to block out the shouts of a local man. He was yelling at another man in a suit. The latter was clearly angry, but composed. Hitada activated external comms and selected a crowd control setting. "Lady and Gentlemen, how can we assist?" The shouting man cut off

in mid-word and clapped hands over his ears. The tightly focused directional setting spared the others the ear-splitting treatment.

The woman grinned slightly, ended her conversation, and introduced herself, "Marines, we're glad you're here. I'm Dr. Delia Ivanovitch. Please call me Del."

"Del, I'm Gunnery Sergeant Hitada, and this is Lance Corporal West. We've been briefed on the situation. How can we assist?"

"The medic and hydro bots. They've been taken, and we absolutely can't operate without them. We don't have enough staff to make up for the work of the medic bot, and without the hydro bots, people will start to die," Del said.

The man in the suit spoke up, "The neighborhood will go full dry if we don't get those bots back. I fear that if we don't recover them in this hour, we never will." He held out his hand, "Richard Shaka. Mayor of Lagos."

Hitada shook the Mayor's hand, "Understood. We'll do everything we can to get them back." She gestured to the now-subdued third man who was dressed casually, but expensively. A thick, gold chain was visible through his open collar. "Who is that?"

The Mayor said, "A local criminal, though he calls himself a businessman. I believe he had something to do with what happened here. He is apoplectic that I would levy such an accusation."

Hitada asked, "Is there any reason you need him here?"

"Absolutely not," said the Mayor. The Gunny nodded to her Lance Corporal. Lance Corporal West set his heat gun to "two." He trained it on the crime boss, moved to the man, and hoisted him by the shoulder. As he marched him to the perimeter, the local's feet barely touched the ground. West's suit may not have been the newest model, but the actuators worked just fine. "Charlie Five, Charlie Six, exclude this buffoon," he said as he shoved the man into the crowd.

"Buffoon excluded, Lance Corporal!" said the menacing combat bots as they trained their own guns on the indignant man, discouraging anything bolder than more insults. West scanned the crowd for threats as he made his way back inside.

Gunny asked, "So the bots were taken against their programming?"

"They used larger bots. Ours were physically restrained, picked up, and carried off."

"Sounds like a well-organized assault," said Gunny, skeptically.

"Unfortunately, Lagos's criminals are the best-organized people in this city," said the Mayor.

West was anxious to act. He asked Del, "Ma'am, do you have any means of tracking the bots?" She tapped on her tablet, and handed it to him. It was a map of the local area, with three clustered blips half a mile from their location.

She said, "Those represent the bots. The blues are the hydros, and the red-and-white one is the medic. They've been stationary for about an hour." As if she had jinxed them, the blips began to move northeast.

The medic bot's purpose was to save individual lives, which gave it value. But the hydro bots were literally priceless for they could save entire neighborhoods or even cities with their ability to map, manage, and manipulate hydro-infrastructure networks faster than any human could. That control over such an elemental and life-giving resource as water, of course, also made them a perfect weapon. Two of them together even more so.

Gunny noticed immediately. She said, "I think we've just run out of time. West, you're my fastest runner. Sounds like some nasty bots are involved, so take a couple of Metalnecks with you. Your choice."

"Aye, Gunny! Charlie Seven, Charlie Eight, with me," said West. The bots looked for nods from Hutchins and McCandliss before breaking away from triage.

The Mayor put a gently restraining hand on the arm of West's suit,

"You're going to need a guide. That map doesn't reveal everything." He looked over at the little girl, her wound dressing complete. She was still staring at them. The Mayor gestured her over. After a brief hesitation, she complied.



"Omo, ohun ti ni orúko re?" The suit mimicked the Mayor's voice, in English, in West's ear. "Child, what is your name?"

She hesitated, then said, "Sami."

"Sami. These people and bots are here to help you. They want to find the water and medic bots that were stolen by the people who hurt you. Will you help them find their way?" asked the Mayor. She looked at all of them with penetrating eyes, and West couldn't shake the uncomfortable feeling that she could see through their visors. She finally nodded, and held out her hand for the tablet. She studied the map and blips for only a few seconds before returning it. Without ceremony, she broke into a run, not checking to see whether anyone followed.

The combat bots fell in with West as he loped out of the ruins of the hospital. They picked their way through the dense crowd, almost losing Sami, but caught up with her as they cleared the gawkers. *Brave little girl*, he thought. He wondered to himself whether Eugenia was learning to be the same kind of brave.

A straight line on the map did not translate to a direct traverse. Rubble and dead ends blocked streets, and some of the map's buildings no longer existed. Sami's local knowledge was flawless, every move sure as she led them over, around, and under on their pursuit. They gained steadily on the abducted bots. A surprising number of buildings had clear basements and ways through. Perhaps this shouldn't have been surprising; the locals needed to maintain some mobility in the midst of crumbling and blocked streets.

In less than twenty minutes, they caught up with their quarry. A comparison of the map and environment indicated the bots just fifteen yards away, somewhere in the dilapidated, twenty-story apartment block looming ahead of them. West added another overlay to the display. The three machines were twelve feet beneath street level.

"Strong work, Sami! You found them..." West began. Sami had vanished. *Smart kid*. Things were about to get dangerous, and she had been through enough today. All the same, West would have liked to thank her.

"Seven, Eight, they're in the basement," West said. "Looks like there's a side door that leads down, if the map is correct."

The bots raised their weapons to the ready and stayed close to West as he worked his way around the building. The bad guys had either entered by a different door, or disguised their passage well. The alley was filled with refuse.

They found the promised door, of heavy steel construction, and took up position. West tentatively tried the handle, and wasn't surprised when it didn't budge. He nodded to Charlie Seven. The bot approached the door, slammed its hand through the steel, and ripped it clean off. Charlie Eight tossed a flash bang grenade down the steps. They waited for the explosion, then sped inside—a well-oiled team of Marine and Machines.

West's infrared sensors pierced the smoke and darkness. The room was similar to the others they had passed through. Random junk littered about, with the middle cleared for transit. He detected neither humans nor bots ahead. Seven and Eight still searched their own sectors.

His view instantly collapsed in static. Feedback noise stabbed into his ears, and every actuator in his suit failed. Three-hundred-fifty pounds of armor-turned-dead-weight bore him down to the dirty floor. He tried

desperately to stay upright and train his weapon. The suit was just too heavy; his senses, overwhelmed. He had scarcely hit the ground when the first blow fell. The suit's auto distress signals were unable to connect to the gliders' NavyNet.

His head snapped to the side as something heavy struck his helmet. Hard. Apart from hurting, the blow forced a reset. The feedback stopped, leaving his ears ringing, and grainy video feed warped back into view as he was struck again. And again.

West was surrounded by locals. Small ones. Wielding pipes and rebar. Shouting. His compromised suit wasn't translating, but he knew enough of the lingo. They thought he had water with him. He did, but it wasn't in a form they could use. The suit's recovery system collected his sweat and urine, purified it, added nutrients, and intravenously pumped it back in. The hated, but necessary, FueLine was standard mission prep.

He forced his head to the side and found Charlie Seven and Charlie Eight. He saw a boy, maybe eleven years old, bashing Charlie Eight's titanium head with the wooden stock on his Russian EMP rifle. His suit was recovering, but the EMP blast had rendered the robots to scrap. He tried to lift an arm to shield his helmet from the barrage. It took a Herculean effort to roll his arm onto his chest. A wiry teenager knocked it back to the floor with a crowbar, then went to work on his chest plate, attempting to pry it off. *This is it. This is how it ends.* 

"Reset actuators!" The process would take more time than he had, but he had to do something.

*Insufficient power. Recharge immediately.* The dispassionate words destroyed his last ounce of hope. Above the script, Sami appeared, pipe raised over her head, ready to smash through his cracked visor. And Steven West, Lance Corporal, United States Marine Corps, knew despair.



He wouldn't accept this betrayal as his last image on earth. "Latest message. Display attachment!" Eugenia's drawing appeared. Not a happy sight, but it was his sister's work. He waited for the blow to fall. And waited. He realized the beating had stopped. "Close message." The kids were all transfixed by his visor. They looked into his eyes now that the image had disappeared. Some had their weapons raised above their heads, forgotten. Others had lowered theirs.

These "child soldiers" were street children. They were smart. They knew what Eugenia's illustration meant: Their target had family. Family that was suffering as they were. The obsolete visor had transformed him into a fellow human. It had stayed his execution, if not saved his life.

**Reset complete. Operating on reserve power. Thirty seconds remaining.** He sat up effortlessly. The children scrambled away in alarm. His head swam. He stayed still for a few seconds. Sami appeared, unfazed and staring into his eyes. A tear rolled down her cheek. She looked more desperate than guilty.

West's helmet chimed in his ear; he'd somehow connected to a local network. He transmitted before he lost the bandwidth, "Gunny, West. Two bots down. Armor compromised. Request reinforcements. Bring power pack and water."

"Dammit, West, this is why we can't have nice things. En route. Don't die on me,"

"Copy, Gunny." *Shutting down in 5...4...3...* He slammed back to the floor with a grunt. A dead suit absorbed no impact.

Sami found the manual release and raised his visor. *Clever girl*. She sat down next to him and held his hand. Or, he thought she did. He felt nothing through the armor.

West made no attempt at Yoruba. In English, he asked, "Hard day, huh?"

She nodded.

Bilingual. Impressive. "Got some water on the way for you."

She looked away from him and sighed, "I'm sorry."

West said, "It's okay, honey. Water is a fightin' word."





# DOUBLE

## DA

By

Major Vic Ruble USMC

Captain Sara Kirstein USMC

#### **Double Ten Day**

About this world: It is a world driven by social unrest and marked by instability, complex conflict, food and water shortages, and severe natural disasters. If current patterns and trends continue, the world will reorient centered on massive, multifaceted urban clusters. Three-quarters of the world's population will live in cities and there will be 41 megacities worldwide by 2030, making urbanized warfare unavoidable. Conflicts in megacities will force both antagonist and protagonist not only to master the "Three Block War," but also to think vertically and adapt to "Four Floor Wars"—aiding noncombatants on one floor or evacuating them from a rooftop, detaining adversaries on a second level, while conducting train, advise, and assist inside the spaces of a third, and offensive operations in the subterranean realm below.

World | Thursday, April 20, 2045 4:15 a.m. ET

## AFTER MONTHS OF STALLING, TAIWANESE FORCES MOVE TO RETAKE OLD TAIPEI



BY NIGEL CHAPMAN

NEW TAIPEI CITY (AP) — The Taiwanese government, supported by the Coalition, will make its push to reassert control of the island nation, the AP has learned.

For a third day in a row, Coalition forces and aid workers at the USAID fresh water distribution center have been harassed by small-arms fire from the Neo-Skydome facility, held by struggling pro-Chinese insurgent forces.

"The sooner we can re-establish Taiwanese central governance, the safer the Taiwanese people will be."

— Colonel Michael Brubaker, USMC, Commander, Special Purpose Marine Air-Ground Task Force-Asia

Clean water continues to be a scarce resource, and the ability to provide potable supplies has become a service that defines those with influence, and those without. A portable, solar-powered desalination system delivering safe water to anyone — anywhere — introduced by a foreign, non-interested, international relief agency, undermines the agenda of those who would use water as a means to an end or as leverage to attract, or conscript, members to their cause.

Meanwhile, in Old Taipei, relief supplies intended to feed tens of thousands of families daily, have stopped flowing. The disruption is thought to be the work of the same pro-Chinese insurgents. In particular, the USAID storehouse, which services the southeastern quarter of New Taipei City, has been targeted repeatedly.

It was in direct response to this turmoil that Special Purpose Marine Air Ground Task Force-Asia formed the 3rd Combat Logistics Enforcement Battalion (CLEB) to be operationally tasked in Taiwan. The CLEB falls under the 3rd Marine Logistics Group and III Marine Expeditionary Force, now based in Darwin, Australia, as Okinawan resistance to US military presence finally compelled the relocation that had been in the works for decades.

At the root of the problem was Taiwan's catastrophic "Double Ten" Quake, named for its occurrence on October 10. With an epicenter 60 miles south of New Taipei City, the initial earthquake killed an estimated 4,800 people, reducing over 50 thousand homes to rubble and displacing nearly a quarter million inhabitants. The Maanshan Nuclear Power Plant, hundreds of miles south of the epicenter, suffered enough damage to force its turbines to shut off.

Unable to respond to both the nuclear fallout in the south and ensuing massive population migration north, the central government began to fracture as pro-Chinese unification groups and Taiwanese Independence factions vied for control.

"There's a long way to go, but we're seeing progress," one former senior administration official tells the AP under the condition of anonymity. "Initially, efforts to create an effective military force for Taiwan were disappointing. But, after months of partnering, we believe we have the right core of leadership that can instill confidence in the men and in the mission."

The operation, named "Vital Rigor," which includes Taiwanese government forces backed by local loyalist militias, seeks to unseat key nodes of pro-Chinese and insurgent factions from its megacities and refugee population centers. Soaring urban mega-structures serve as de facto fortresses, each with their own social structures, governance, and agendas.

The US military, reluctant to get bogged down in a long campaign, has been absent through most of the hostilities in Taiwan. Behind the scenes, however, one official tells the AP that between 200–300 US military personnel have been involved in the conflict. As the Australian-led Coalition forces embark upon Operation "Vital Rigor," the US is letting its presence be known.

aptain Tristan Gupta's motorized convoy sped through the streets of Old Taipei. He was having a hard time wrapping his head around the fact that this was where he found himself. Of course he understood the circumstances just fine. Pro-Chinese insurgents were interrupting the delivery of fresh water to citizens still recovering from Taiwan's devastating earthquake and the city's subsequent collapse.

It was the speed with which these events took place that had him punchy. He and 13 of his fellow Marines were plucked right off of Special Purpose MAGTF-Asia—enjoying everything that Darwin, Australia, had to offer—and thrown into this world of ambiguous strategic goals, ever-changing loyalties, and frustratingly restrictive ROEs.

The original mission was to serve in an embedded partnership role, training and advising the progovernment paramilitary forces that controlled the Wanli District of New Taipei City. But as he found himself in the heart of Old Taipei, looking up at the swarm of UAVs buzzing around the eastern tower of the super skyscraper Neo-Skydome, he knew that he and his District Security Force Company were officially in the midst of mission creep.

"I don't think we're in Kansas anymore," quipped his driver, Lance Corporal Johnson. Gupta nodded and looked around at the decaying inner-city of Old Taipei: crumbling buildings, streets that looked like they were in the middle of a warzone, and stony stares of a population hidden in the cracks, barely hanging on. Hard to believe that only a few years ago this was the center of technological advancement and prosperity in Asia.

"Yeah, if we get lost, I'm not getting out to ask for directions," Gupta replied.

Human intelligence sources and aerial surveillance indicated that the attacks were coming from the Neo-Skydome, the landmark superstructure in the heart of Old Taipei. Despite tentative government control over the local territory, the leader of the Chinese Unification Front and his minions were firmly entrenched somewhere in the subterranean hollows of the Skydome. If the continued attacks on the USAID water distribution center were going to stop, Captain Gupta and his pro-government militia were going to have to uproot the insurgents by force.

Having exhausted the information available from the UAVs circling the building, Gupta reached up and, with a swipe of his hand, collapsed all but one of the screens hovering in front of him. He grabbed the ends of the holographic image box with both hands; he enlarged the screen by moving his hands apart. Now he had a clear view of the Skydome's service entry way. By the amount of dirt and dust that had built up on the doorway, and by the clear signs of neglect in the adjoining alleyway, this entrance was rarely used. Captain Gupta reached up and scrolled through the UAV's various optical ranges—thermal, infrared, extreme ultraviolet, and electromagnetic—and determined that, of all the less-than-desirable entry points, this was the best option to initiate the breach.

He grabbed the floating screen and pulled the image over and down into the Remote Holographic Integrated Systems Device, or RHISTD, strapped to his left forearm. The RHISTD lit up when the data transferred successfully, and, with a few key strokes, a smaller version of the holographic feed projected above the digital bangle. Satisfied that he had as much information as he was going to get, Gupta prepared to move in: "Go tactical."

The blackout tinting of the JLTV's ballistic windows lightened, returning them to their original, transparent state. Gupta squinted as he fished around for his sunglasses, always forgetting how quickly the upgraded vehicles transitioned to and from C<sub>2</sub> mode.

"What's the deal, sir?" Corporal Hernandez asked from the JLTV's gunner station. "We going in?"

"Not if our boys do what they came here to do," Captain Gupta responded. "Hopefully, we just hold fast in the cordon and enjoy the show." Knowing that it was rarely that simple, he shouted back into the truck, "Corporal H, you got eyes on the building?" Gupta could see the remote weapons station, sitting atop the vehicle, scanning side-to-side steadily across the Skydome.

"Yes, sir."

"You seeing anything special about the service entrance?"

The remote weapon station, or RWS, scanned some more.

"No. Nothing on thermal and nothing on FLIR, sir. It looks like it hasn't been used in a while though."

"Good to go," Gupta said.

He reached up and touched the small microphone attached to his enhanced combat helmet, sending a Notify signal to his District Security Force, or DSF, counterpart. "Huang, you there?"

Through the speakers in his helmet, he heard a surprised voice come over the net. "Ah, Captain Gupta. You were taking so long in there, I thought you were taking a nap," the young DSF platoon commander prodded him.

"Ha, ha. Very funny. It's too bad your English is getting better," Gupta replied. "You guys ready to do this, or what?"

"Just waiting on you," Huang said.

"Ok, see that service entrance on the building's 9 o'clock? Down that alley? That's your breach point," Captain Gupta said.

"Roger."



"Standby to deploy."

Captain Gupta reached down to the display screen on his RHISTD. With a tap on the screen, his radio switched from the DSF net to the company tactical net.

"All stations, this is Oscar Three Golf. Assault team move into assault position Alpha in three....two....one. Go!"

From the corner of his eye he saw the JLTV leave its position within the inner cordon and race across the parking lot toward the skyscraper, quickly clearing the 250 meters between the cordon and the exterior of the building. Gupta reached down to his RHISTD and, with a few presses, had the projection of the UAV feed hovering once more above his left forearm.

He used his haptic control glove to maneuver the UAV closer to their desired breach point.

With the UAV in position, he pressed a floating icon in the lower right corner of the hologram. The UAV dropped its spherical camera to the ground, then flew back into formation circling the building. Slowly moving his finger along the touch screen, Gupta guided the camera to right itself and move to within a few inches of the side entrance. There, it flattened itself out nearly paper thin and slid quietly under the locked door. He confirmed that the hallway leading from the entrance to the interior of the building was empty, and radioed back to Huang to give him the "all clear".

Four DSF soldiers leapt from the bed of the JLTV and raced down the alley toward the service entrance, stacking with perfect dispersion along the wall connecting the building and the alley. Looking similar to the Marines, they were wearing the standard enhanced battle armor favored by most Coalition members. This armor allowed the wearer to task-organize its configuration based on the mission set and individual's preference. Some, like himself, would apply more digital enhancements for increased C2. Others would opt for increased armor protection, trading flexibility for survivability when enemy contact was imminent, or configure their kits for increased ammo storage.

The DSF were given the base kit, which gave them basic protection and load bearing capabilities. The small, electrically-powered core attached to the back of the armor provided them with minor enhancements to running speed, carrying capacity, and jumping ability. Through a rigorous regimen of live-fire training drills and continual insistence on developing the DSF's small unit leaders, Captain Gupta had developed this militia into a professional and reliable fighting force.

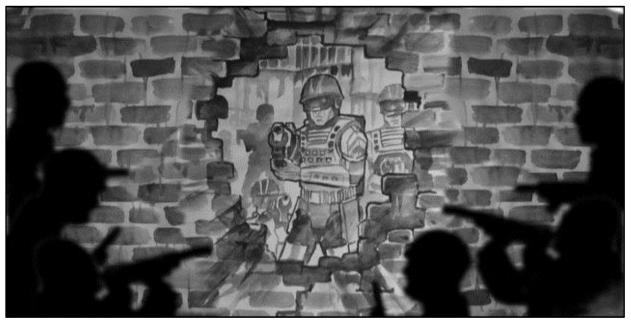
From his position in the cordon, Gupta could see the breach team's point man placing the breaching charges on the door. Gupta still felt uneasy about the entry point. He checked the video feed of the entry way again to ensure no one had moved toward the service entrance from inside.

The video had a noticeable "skip"—a short pause—in the feed, with a still empty entry way in clear view once the feed returned. Most likely, the camera was still stabilizing its position, or there was interference from the building's concrete and rebar foundation making it difficult for the small camera to transmit the large amount of data required for live video.

The breach team's point man completed the placement of the explosive charges and gave the signal that they were ready to breach. Gupta looked again at the video feed and saw another "skip" in the video link. When the feed came back on line, it was the same empty entry way, but this time he noticed a cockroach scurrying across the floor into the service elevator shaft. As the feed continued, the cockroach reappeared at the end of the hallway, making a perpetual journey across the linoleum floor. The "skip" he'd been seeing wasn't a pause in the feed, but the beginning and end of a spliced loop. The camera's link had been intercepted and the video tampered with. He radioed Huang to tell him to abort the mission and fall back, but there was no response.

Failing to make contact with the DSF platoon commander, Gupta switched channels trying to speak directly to the breach team over their own platoon net, but was again unable to make contact. Realizing from the tampered video and inability to reach anyone on the radio that all data and voice communication were being jammed, Gupta dove into the cab of the JLTV furiously attempting to engage the vehicle's EW countermeasures, clinging to the hope that he still had time to prevent the DSF team from rushing into the unknown force that awaited them on the other side of the door.

As he flipped the switch engaging the vehicle's EW defense system, he heard the *POW...POW....POW* of the breaching charges as they detonated along the door's weak points, sending it flying backward into the building. Gupta, in a near panic, stood out of the vehicle just in time to witness the final member of the breach force race through the smoke and into the building. He looked at his RHISTD and saw that the countermeasures were effective. The renewed feed from the camera showed a room full of Chinese autonomous robot soldiers. Seeing what they faced, Gupta's chest clenched tight. He attempted to reestablish comm with his unit, but it was too late. He watched helplessly as the four members of the DSF were cut down.



There was no time to grieve. Chinese robots poured from the breach point, assailing the Marines and Taiwanese forces occupying the inner cordon.

China was one of the few countries that continued to use the autonomous robots on the battlefield. Most countries didn't like using them in direct combat; they were expensive and required extremely detailed mission sets. This was problematic as battlefields became more asymmetrical, especially in instances where heavy kinetic fighting occurred in the same vicinity that required humanitarian relief. The robots were unable to differentiate between the two and never erred on the "humanitarian" side.

The automatons waded through the inexperienced and under-armed DSF soldiers. Forming a half circle around the breach point, the robots' heavy machine guns blanketed the DSF JLTV gun trucks. Due to lack of funding, the antiquated trucks were equipped with the old Gunner's Protection Kits (GPKs), not RWSs, meaning the guns were manually operated. They were no match for the robot's precision targeting systems.

But there was another reason most of the world's militaries hadn't completely shifted to autonomous soldiers: the limitations of their optics. If the optical receptor of the robot became over-stimulated, then the core would safety default and "reboot," giving its brain time to process the overload of information.

As Gupta loaded a chaff grenade into the M203 grenade launcher attached to his TAR-21, he prayed that these bots hadn't been upgraded. Gupta stepped out from cover and lobbed the chaff grenade into the formation of enemy bots. The explosion filled the air with metal confetti, overloading the bots' optical circuits and stopping the Chinese force in their tracks.

No longer suppressed, the DSF retook the initiative, pouring fire into the enemy formation. Supported by

the precision fire of the Marine RWSs, the robots were reduced to scrap in seconds. But through the smoke and dust, Gupta saw one metallic figure scurry back into the building through the ruptured service entrance.

"Damn it!" he shouted.

Getting back on the company tactical net to address the unit, he said "Listen up, gents. One of those damn things must have been able to drop its blast shield and avoid the chaff, because I just saw it go back into the Skydome. Huang, get any wounded on the ambulance and back to the casualty collection point. Anyone who's still walking and talking, rally on my vic. We've got to get in there and dig these sons of bitches out. That damned robot is going lead us straight to them."

Gupta strained his neck as his eyes ran the length of the building from the ground floor to the apex above the darkening clouds. Wherever they are in there. He took a deep breath and said a prayer for his fallen DSF comrades just as rain started to come down. Then, Gupta attached the extra ammo sets to his armor, dismounted, and ran toward the imminent battle.



few miles and several hours away, as Captain Gupta was consolidating on the objective and getting his ammo count, a small disturbance rippled the surface of the water fifty meters south of the large pier that served as the core for the local shipping port on the outskirts of Old Taipei. The five Marines that made up the Combat Logistics Enforcement Company's recon team were programming their Diver Propulsion Vehicles to make an autonomous return to the amphibious ships housing SPMAGTF-Asia off-shore. Lieutenant Logan Bastian's team would need to find another way back to the ship once the mission was over.

They were here to investigate large quantities of missing food stores and would infiltrate and conduct an area recon. Stolen food was a serious crime in a disaster zone. Whether by corruption or theft, the loss of supplies meant refugees went hungry.

If the squad confronted any large groups they would radio for the Quick Reaction Force (QRF), whereby a platoon of 30 Marines would fly in and conduct a direct action hit on the targeted building.

The five Marines in full tactical gear crept silently along the exterior of a massive industrial storehouse just outside of New Taipei City. They paused and pressed against the wall as lightning flashed, threatening to expose their position. Their TAR-21 carbines were angled to the ground as a paltry measure of protection from the driving rain, but the weapons still held the promise of danger.

The lieutenant slowed his movement and fiddled with his RHISTD. Zemecki tripped, but caught himself. Bastian imagined, but couldn't see, Zemecki's look of embarrassment shielded by his helmet and the darkness. The squad gave a muffled chuckle.

Overhead, the telltale whirr of a Chinese hoverdrone emerged from above of the storehouse. Instantly, the squad quieted and froze in place. Hoverdrones were weaponless reconnaissance vehicles with limited capabilities; cheap, disposable, and excellent at tracking movement. What they tracked they quickly reported, and reporting would cause unwanted trouble.

Lance Corporal Skye reached towards the plastic tube containing a small, armed UAV, mounted on the side of his pack, in anticipation of a signal to drop the hoverdrone.

Lieutenant Bastian shook his head. Shooting it down would compromise their presence. He considered whether this was an indication of a PRC force in the area and re-checked the stats on his RHISTD. Intel UAS swarms reported no significant enemy presence in this sector. A solitary patrol.

"Just let it pass, but be on the lookout," Bastian said quietly.

The squad settled deeper into their crouches and waited for the whine of the hoverdrone's engine to fade out of range. Their enhanced suits reduced their thermal signatures to the size of rats, which there were plenty of as in most megacities. The hoverdrone's algorithms were programed for human-sized signatures and movement patterns. Thermally, the recon team resembled a family of rodents avoiding the rain as they traversed along a building. Their best defense was a small footprint and stealth. They wouldn't engage unless forced.

As the echo of the hoverdrone faded away, Lieutenant Bastian broke silence as he sidled up the slick metal wall to the front of the squad. "Zemecki, Johnson, break left and set up overwatch next to that water tower. Stay out of sight. Join us in the warehouse if things start to go south. Kamaka, Skye, you're with me. Let's see what's going on in there. Stick to the shadows. Happy hunting."

The sniper shooter/spotter pair nodded in acknowledgement and moved off silently through the now drizzling rain. Corporal Rani Kamaka and Lance Corporal Skye continued along the side of the building. Skye took point.

Upon reaching the corner of the building, Skye flipped down his helmet viewport screen and activated the small front-sight camera, waiting for the overwatch to set up. Once in place with their optics oriented, Skye could see what they were seeing through their scope. This allowed the team on the ground to observe around corners without being exposed.



"Not much to see on visual, with the rain. Thermal sig is showing one man on the door, and a pretty good heat sig coming from inside. It's definitely an active site," Skye reported. His eyes shifted subtly as he scanned the data scrolling across the viewport. "Additionally, sir, intel swarms confirm that there is no subterranean structure within 200 yards of our current location."

Nodding at Kamaka, Bastian asked, "Whaddya see inside from here?"

With practiced efficiency, Kamaka reached into her bag and took out what appeared to be a five-inch black rubber disk with a large suction cup on one side, and a small, stocky antenna on the other. She placed it against the building, connected the device to her C2-tweaked battle armor, and lowered the viewport screen. Keying her RHISTD, she looked up, peering at the wall that was mere inches from her face.

It looked comical to the others, as she seemed to be staring at nothing but the water splashing off rusty screws as rivulets of water streamed down the corrugated wall. In her viewport, however, Kamaka was analyzing the images being sent by the Therm-X disc, virtual x-ray images with thermal colors that gave her a live picture of the scene inside the storehouse.

"Sir, it appears that the front third of the warehouse is one floor, clear of boxes, but I can confirm a massive heat signature in the middle. Looks like a controlled fire. Shelving packed with crates fills the rest of the building. I see between 15-20 bodies, some small. There are two more guards just inside the door," Kamaka explained.

"Kuso..." Bastian cursed. "Who are the smaller bodies? Shockers?"

"Could be, sir. I can't locate any unit insignia on the personnel inside, but we've heard reports of small pockets of Shockers in the area lately."

Shockers were genetically-stunted Chinese spec ops, trained from birth; their growth was inhibited shortly after entering puberty, but their physical strength would continue to develop as normal and was often further enhanced. The result was a slight, limber, and powerful killing machine, highly trained and almost impossible to hit. They were called <code>Shandian Zhanshi</code>, meaning Lightning Warriors, but the Marines just called them Shockers.

Small and often covered with acne, they looked awkward and ridiculous. But you only made fun of them once; after that, you were either dead, or filled with a healthy dose of respect and probably a long convalescence. The hoverdrone from earlier could belong to them.



Lieutenant Bastian keyed up his comm. "Zee, Johnson, how're you two doing out there?"

"Nothing significant to report, sir. I can see one guard holding up the doorframe, but he's half-asleep. No identifiable uniforms or insignia," Sergeant Johnson said.

"Roger." Bastian paused for a second, looking around blankly, and then coming to a point of focus as he made a decision. "You two take care of the outside guard. There's two more guards inside to take care of. We're going to toss in hot marbles."

"Aye sir, get some."



Bastian sent up a SITREP/BUILDREP via his RHISTD to the QRF sitting standby off the coast on ship. The squad leader would send back a timer on when to coordinate the action. The Recon team would take out the outside guard and stun the inside occupants while the squad attacked top down from their helo transport. As Bastian moved his element to a concealed position a safe distance away, he checked his RHISTD which updated him that the team was 60 seconds out. He gave his pointman a hand signal. Lance Corporal Skye reached into a pouch and extracted a handful of high tech grey marbles. Activated by the RHISTD, the marbles were rolled from a safe distance to set target coordinates. Able to roll under a door and into a room, the marbles disaggregated and dispersed quickly throughout the targeted area. First they identified all possible targets and then zapped them with strobe flashbang-like affects within five seconds.

The helo transport rapidly decelerated to a hover over the building, barely stable before Marines deployed individual lines to the roof to begin their assault. The three Marines concealed at the corner of the building tensed up against the wall. Within a few heartbeats the marble went off. A ferocious wave of noise rocked the air as the series of small explosions blasted in sequence. Frenzied shouts filled the building.

An exterior watchman tapped on his flashlight and guardedly crept forward. He was dropped silently by a muffled shot from the overwatch position. A moment later, the two guards inside burst from the door. They were quickly felled by the same method.

The squad of Marines descended and dropped both visual and audio dampening viewport screens to mute the effects of the blinding strobe from the marbles. They entered the warehouse with weapons engaged. Amidst a great cacophony of crashing and yelling, ten Taser rounds found their targets who immediately dropped to the deck, seizing uncontrollably.

Bastian observed the squad's live camera feed. Something didn't feel right. He hurriedly keyed off the marbles and visually signaled an emergency ceasefire. The shooting stopped, but the tension remained. All three Marines had weapons drawn and pointed at the huddling mass that made up the remaining contingent of heat signatures reported by Kamaka.

In the light of the cookfire, Bastian looked around. Writhing bodies lay strewn about the storehouse floor,

alive but still recovering from the Tasers. They'd be effectively out of the fight for another hour or so. In the sudden silence, Bastian tried to determine who the others were.

The door slammed open as Zemecki and Johnson reported their approach and came in at a run, weapons up. The harsh noise panicked the group and startled them into movement. A powerful, shrill scream rang out as a small figure emerged from the huddle. It ran toward the Marines near the door. All five barrels tracked the movement by instinct alone, fingers moving to triggers to defend against the Shocker.

"WAIT!" yelled Bastian.

Trigger fingers straightened, except for Zemecki, who was always their fastest and most precise marksman. The round fired, but he reacted enough to move the barrel of the TAR-21 to be off-target. The Taser round skipped off the ground inches from the terrified young child who was frozen in place. Adrenaline surged through the air, as both Marines and civilians tried to take stock of the situation. The team mechanically eased into a tactical half-circle formation, training taking over and allowing them a moment to re-assess.

Lieutenant Bastian was the first to lower his weapon, and the whimpering noises from the small cluster became noticeable as the bindings of fear loosened enough for sounds to escape. A woman bolted forward with a mother's recklessness and seized the child, pulling him to her chest as she retreated back to the relative safety of the group.

The other Marines lowered their weapons, remaining alert and more than a bit twitchy. After a long moment, Lieutenant Bastian sighed and gave several muted orders to the Marines. The three guards Tased on the ground outside were dragged in with the others, and the troops loosely guarded the motley crew that had clearly been living here for some time.

They looked worn and beaten. The mother of the young boy, a timid woman dressed in a ragged PRC-issue jumpsuit that had clearly been ripped and repaired many times, glared at the Marines not with anger, but with the fraught determination of someone fighting to survive at all costs.

"Command, this is Alpha Two Bravo. I've got 18 PRC refugees here for resettlement; requesting immediate pickup. Come down on my coordinates."

"Sir, no! You know what those camps are like. They're better off here," Kamaka pleaded, but she knew she was already beaten.



Bastian looked between Kamaka and the disheveled woman with sad, resigned eyes, even as he thought of his wife and his young son about the same age as the one crouched by the fire, clinging to his mother.

He let out a long sigh, but knew that in this new world economy, allocation of resources was king. The Marines' job was to keep those resources in US control, so if he let these people escape, he was literally taking food from the mouths of other refugees instead. Better to get these people registered, though Kamaka was right about the conditions at the camp.

He looked at the young mother and her scared, desperate family again, and considered breaking the rules. It was an impossible level of responsibility, thrust straight onto the shoulders of the troops working the

jagged front line of this unstable conflict.

As the telltale whine of the large passenger drone's vertical landing engines grew louder outside, the woman's pleas escalated. Despite her cries and the knot in his gut, Bastian couldn't do it. He had orders and he couldn't selectively choose when to follow them.

Lieutenant Bastian set his jaw, and attempted to look at her impassively. His attempts failed and he blinked furiously to wipe away the tears prickling the backs of his eyes. He swallowed hard, and kept eye contact with the young mother as Marines from the CLEB's resettlement team came in to collect the refugees.

Her cries never stopped, and the discordance in the vast space increased as she was joined by the others. After the refugees were cleared out and initial reports made, the silence that overtook the storehouse was deafening. The Marines stayed quiet, but one sent a metal can ringing noisily down the crate-filled aisle with a swift kick of frustration. Zemecki took a breath as if to speak and all eyes snapped to him in muted anticipation, but he simply let it out in a long sigh.

Some stories were better left untold.







#### **The Montgomery Crisis**

About this world: The United States is no longer the recognized world leader. The nation has decreased its funding for basic research, which permits competitors to catch up to and perhaps surpass the United States. The world finds that technology and knowledge developed with beneficial outcomes in mind are being "hijacked" for nefarious ends. Globalization and the democratization of technology give rise to a multipolar world in which anti-access/area denial technology is readily available. China and India have become near-peer competitors with the United States. State and non-state actors increasingly opt to invest in technology over personnel. While significant medical breakthroughs are prolonging life and enabling advances in DNA-tailored remedies, they also enable DNA-tailored ailments. Technological advancement and proliferation have made biological weapons more affordable and available. Extensive, reactive, and necessary pre-deployment preventive health measures hinder the military's responsiveness. Most U.S. forces remain in CONUS to cut defense costs. Although urban growth continues, a desire to leave cities grows rapidly as bioengineered viruses threaten overpopulated centers.

### THE CHINESE BLOGGER

hen Xu's body was discovered on a Wednesday, but the autopsy placed his suicide around Sunday. It was at least long enough that the body had begun to decay, the rope beginning to cut ever so slightly into the flesh of his heavy, motionless body. He had hung himself in his favorite robe and prohibitively expensive red silk slippers, adorned with golden dragons, which reflected off the pristine white marble floor of his apartment. The smell had already started seeping into the furniture but had somehow not yet found its way past the front door and into the hall. His body was discovered by investigators—not neighbors or friends, of which he had very few. Only a handful of news agencies had covered the suicide and that was only because Chen Xu had been a government official. The recent investigation into his financial affairs had been enough for his suicide to trigger a modicum of interest. It wasn't until the information on his computer identified him as the individual responsible for "The Great Panic" that his face appeared on the front page of every news website in the world. It was then that Chen Xu's suicide became the most notorious since Adolf Hitler's.

Chen Xu started out posting anti-corporation sentiments on the underground Internet known as the Dark Web. He specifically targeted anarchist blogger websites. It wasn't long before Chen Xu began garnering the attention of Stephen Matthews, an American anarchist. Matthews began posting responses to Chen Xu's rants. Matthews went by the moniker FMCDH (From My Cold Dead Hands), a reference to the NRA and its former spokesperson Charlton Heston. Matthews had been working for Montgomery Seed Productions (stock exchange code MSP), the largest distributer of corn seeds in the US. Their plans moved from the blog and they began emailing each other directly. Investigators released the entire lot of emails under pressure from the media once it became public knowledge that Chen Xu was responsible for The Great Panic.

ROM *The Montgomery Report*; declassified under the renewed Freedom of Information Act. (Note: the following emails were written using code words in order to evade detection. The key was discovered at Chen Xu's home and the emails below have been translated for ease of reading and understandability.)

CX\_Dragon@secmail.com: FMCDH, I have a friend who is very good at developing viruses. All he needs is the DNA sequence of next year's corn crop and he could create a virus specific for that crop. You said MSP only allows one strain of corn out a year. If there was virus that wiped out the crop that would bring the US to its knees! Do you have the manufacturing capabilities? It is too risky to try and send a virus through the mail. We can develop the plans for manufacturing. —Dragon

FMCDH\_2001@secmail.com: CX\_Dragon, I think I can get that for you. It'll be difficult because security is tight but I have an idea. I can manufacture the virus in my basement—I just need the plans. Should have the DNA sequence by next month. In two weeks we will find out what strain will be released next year. That leaves us 9 months to develop the viral sequence and get it manufactured. —FMCDH

Though Matthews was a low man on the totem pole (he worked in the distribution warehouse), one of his friends, Michael Thurston, was a geneticist and fellow anarchist whom Matthews knew from his local survivalist club. Matthews was able to get Thurston to cooperate. As he told Xu:

FMCDH\_2001@secmail.com: CX\_Dragon, I was able to get a good friend of mine to help us out—a real patriot! It was a risk asking him but he agreed. He works in the genetics department and he is THE go to guy for the sequence. He's the one working on next year's crop and he's agreed to get us the sequence for next year at no cost! With the risk he is taking he could charge us a fortune but like I said he's a patriot. He hates all this corporate B.S. as much as we do—wants to take down the whole system. He is going to smuggle the sequence out next week on an untraceable flash cloud. I'll have the sequence to you then. —FMCDH

CX\_Dragon@secmail.com: FMCDH, Great work! I'm standing by. —Dragon

Chen Xu worked in the government's commerce department where he prepared paperwork for commercial building loans. Records show it was about this time that he began diverting a fraction of each loan into a secret account. His browser history revealed that he had also begun researching investment opportunities in corn foodstuffs outside of the US.

FMCDH\_2001@secmail.com: CX\_Dragon, next year's corn seed DNA sequence is attached. I don't know much about genetics and all that but my friend told me that he was able to engineer out the gene that makes them resistant to potyvirus [sic]—whatever that means. He said that your virus designer would be interested in that. Apparently that change in the genes is what makes it so that our company can patent the seeds and sue anyone that uses them without permission. How can you put a patent on something from nature? Anyway, I await the virus sequence. We are on schedule. Good luck!—FMCDH

CX\_Dragon@secmail.com: Thank you—should only be a matter of weeks before we have something with detailed plans. I will let my designer know. —Dragon

### THE VIRUS SPREADS

This strike required two years of patience. The seed-corn DNA was finally hacked in 2037. At that point, the virus became a silent passenger—"just along for the ride." The master seeds were planted at the Cavanaugh Farm the following April. By November, the master seeds were harvested, stored, and prepared for spring shipping to farms around the country. That fall harvest of 2039 was the one that would break the system. But that couldn't happen until the virus had a chance to wake from its hibernation—sometime in May of 2040. By then, all the corn from the fall harvest was processed and had found its way to the digestive system of two- and four-legged mammals across the country. Where it sat.

The CDC made its first announcement in June. It was just a guess, but they needed to assure the population that a cause and a cure were on the way, and quickly. Both of those were lies. It wasn't until July that a connection was made between the corn and the virus. Only then could they detect it. And backtracking it? It had literally gone everywhere. From soft drinks to grocery bags (not that anybody had successfully created an edible grocery bag that anyone actually wanted to eat). Things weren't bad when explained to the press, but seconds later, when social media got it? It took off like a cigarette in a dry forest. Now, you can't blame people for being scared. Fever, painful joints, severe headaches, rash. Not bad. You were in bed for a few days. Maybe a week. The danger was in the fever: If your fever went over 103 you might as well start calling your family to say goodbye. Young, old, healthy, infirmed, it didn't matter.

But here's the catch: If you had ingested any corn product from last year's harvest, you carried the virus. Guaranteed. It just sat there, riding along with its host waiting to arise from its little slumber. It wasn't contagious, but nearly *everybody* had the virus, and the CDC didn't have clue #1 what triggered it. All you could do was wait. Wait for that little bug to rise up inside you, play eeny-meeny-miny-moe, and decide whether you would have low fever or high fever. You learned to judge pretty quickly which stage of grief your fellow citizen was dealing with.

Most people just threw out their corn and switched to another grain, comfortable that safe corn would be back the following year. The problem was that there wasn't enough of *anything* to go around. The cities were a mess, and The New York Food Riots were the worst. Marines from Camp Lejeune came up the coast, under the *Insurrection Act*, to augment the NYPD and the New York and New Jersey National Guards to quash the riots and secure the port facility so the grain could flow.

Meanwhile, the government had to worry about restocking the shelves with edible grains. There was a bumper crop of wheat and corn in the Balkans, and their governments were willing to share. After all, making a buck is better than letting it rot in some Eastern European grain warehouse.

So, there were some who wanted to help, but others wanted to watch the US squirm a little. The New Moroccan government, emboldened by leased Chinese air and surface missile systems (complete with sensors, a C2 package, and coverall-clad contractors), decided that a passage tax would be levied on all traffic transiting the Strait of Gibraltar. It looked like Camp Lejeune was going to have to come up with a few more Marines.

### **SEA WOLVES**

Thile the country, and perhaps the whole world, watched the fleet being reconstituted in Norfolk, Virginia, few were paying attention to events in Mobile, Alabama. Gradually, two hundred scruffy looking men and women drifted in to town. They arrived by bus, train, beaten up cars, coastal ferries, and a few by airplane. In all the commotion and chaos surrounding the food crisis, these small groups were lost among the drifters and other desperate men looking for jobs at shipyards, oil rigs in the gulf, or shrimp boats. Slowly, they assembled on a rusting barge transport ship sitting at the old Austal shipyard.

The shipyard had been limping along for the last couple of decades. After the US Navy stopped building new ships and the merchant fleet continued its decay, the yard scraped by refurbishing small supply vessels for oil rigs and refineries in the Gulf of Mexico. Occasionally, they won contracts to refurbish old merchant ships still plying their trade.

When the old barge transport ship departed the shipyard, few took notice. A small crew could be seen as it slipped past Blakeley Island. Unbeknownst to the casual observer was the deadly cargo she carried.

Major Evan Hollande was reading his orders again. He'd read them so many times he lost track. He had been recalled to active duty and given command of the Marine Corps' reconstituted 3rd Force Reconnaissance Company. The reconstituted reserve company had been given one heck of an assignment by the Commandant. He was shaking his head as he read it once again when there was a knock at the hatch.

"Enter."

He looked up to see First Sergeant Bodine open the door.

"They're formed up for you, sir."

"Thank you."

Evan followed the First Sergeant down the winding corridors and ladders leading to the main cargo deck. Two hundred men and women were gathered. A casual observer would have thought a biker gang was holding a chapter meeting. The beards, pony tails, tattoos, ragged jeans, and leather jackets were not just camouflage to hide their assembly, it reflected the situation many had come from. For more than a decade the country had been looking inward and trying to forget its role in the battle against ISIS and all the other extremist organizations. Many military members released from service were finding it difficult to find meaningful work. Among the hardest hit were those who had been Reserve Marines. Recalled to active duty to fight in Iraq, Afghanistan, or other distant lands, they returned to find the jobs they were promised no longer existed. Veteran benefits were reduced to a pittance as the veterans had to share the burden of new priorities in the national budget. A few young faces stood out in the crowd. Some were young Marines pulled together from ceremonial duties around the country; others, recruited on special duty orders.

I'm surprised they answered the call after how they were treated, Evan thought to himself as he stepped out onto a platform above them. Thank God they did.

His uniform, and that of the First Sergeant, was in sharp contrast to the assembled crowd. As soon as the first Marine in the group spotted him a shout rang out.

"Attention on deck."

First Sergeant Bodine took his position, centered in front of the now-silent, motionless gaggle. Slowly, he looked left. He looked right. He barked, "Fall In!"

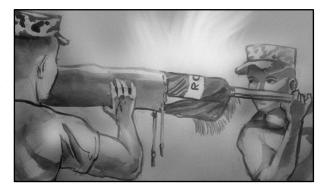
Old habits, long dormant, took hold. Quickly and quietly the crowd reformed into an orderly pattern. Instead of a mob, Evan could see a real military organization take form. The few young Marines in the crowd were guided by the old veterans to their place in the formation. Everyone stood at attention. Evan turned to the only other Marine in uniform in the cargo hold.

"Post."

The young sergeant walked forward with a green canvas case in hand.

"Uncase the Colors!"

The First Sergeant stepped forward to the young sergeant and untied the drawstring holding the canvas cover in place. The assembled formation stood a little taller as they saw the scarlet and gold standard flag unfurl. Some were holding back tears as they recognized the gray silhouette of an eagle, globe, and anchor. Below the silhouette, on a scroll, was the unit designator, "Third Force Reconnaissance Company."



"It is said in the Marine Corps that every formation is a parade." Evan's voice cracked a little as he spoke. "Today, it's more like a family reunion. Welcome back. We are Marines. We are Force Recon, and once again our nation needs us. Swift. Silent. Deadly. That is who we are; time to look the part. First Sergeant!"

"Sir!"

"Take charge of the Marines and get them ready for combat."

"Aye, Aye Sir!"

"You heard the man. Time for you all to start looking like the killers I used to know and love. Barber shop is open, and showers are ready. Report to the station in the back of the hangar to get your uniform measurements for printing. Get your bunks squared away, and report back here for PT formation at 1500. Get moving!"

"Ooh-rah!"

Ten days later, they were off the coast of Brazil. While they were sailing and getting their sea legs, the whole company was busy. Everyone was in a constant regime of calisthenics, weight lifting, running, or "humping" their packs up and down the ladders of the ship. Rappelling lines and makeshift obstacle courses had been set up in the tall cargo holds. When they weren't exercising, Marines were field stripping and assembling their weapons and other gear. Everyone fell into their rack exhausted each night in the twenty-five hour time schedule. Slowly, over time, their schedule was shifted until they were awake and busy at night.

Evan stood before the assembled company. Gone was the scruffy look. In its place were hardened veterans and young Marines who wanted to prove themselves. All looked the part in crisp, bespoke, 3-D printed uniforms, though a few looked a bit thin. Bouts of sea sickness and constant exercise can be a very effective, if unpleasant, means of weight loss. Evan could see in their faces a desire for action, to hit back at the

unseen forces which had wreaked havoc on their beloved country.

Well, Evan thought to himself. They are going to get the chance.

"Our fleet has been given the task of making sure grain from the Balkans can safely make its way to the States so we can feed our people. The problem is that the Caliphate of Morocco is blocking the Strait of Gibraltar. They have weapons which can target our ships and airplanes, including our aircraft carriers.

"If you have been watching the news on the ship's television, you know that an Expeditionary Strike Force consisting of an aircraft carrier, a helicopter carrier, some amphibs and their escorts are conducting operations between England and Spain. Pretty soon, those amphibs and their embarked Marines are going to be conducting landing exercises on the coast of southern Spain. Everyone knows Marines like to practice landings before they conduct an assault.

"So you can be sure the Caliph of Morocco is watching our fleet intently. So while we have him held by his nose looking north, we're going to give him a swift kick in the ass."

There were smiles and a few smirks at the last remark.

"In a few days this old tub we call home is going to swap codes with another merchant ship which paid the Caliphate 'passage fee.' The swap will take place in a spot they don't pay a lot of attention to. Then we're going to get close to shore and take our boats in. We're going to meet up with some friends and make our way into the mountains. We'll hide out during the day. The next night we'll spread out, watch, and listen. So you can see why we've been adjusting your sleep cycle and turning you into raccoons."

The ship's crew had taken to calling the Marines raccoons because of the racket they would make at night, and the huge amounts of food and water they would consume each day.

"While on our way, we are going to locate the over-the-horizon radar sites, drone bases, and missile batteries. When the time is right, we're going to capture, destroy, or neutralize as much of that gear as possible. We're going to break down the door from the inside so our brother Marines can come in and finish the job. We're going to provide guidance so the carrier aircraft hit the right targets and the MEB hits the beach in the right places. Behind them will come the Free Moroccan army, led by the Crown Prince, along with Spanish and French forces. Then we'll retrograde out and spend some liberty time in Spain.

"Some of the young faces you see in the crowd are our electronic wizards from Radio Battalion. They have some pretty cool stuff they are going to use, but don't get too excited. Their show won't start until the attack. The Chinese communists provided the Caliphate with electronics gear that can target us as soon as we key a radio. So when the time is right, we'll jam what we can't break. Until then we will be radio silent. No drones, no aircraft, no vehicles. The Chi-Coms gave the Caliphate a bunch of gear looking for that stuff. So we're going to come in like the silent assassins we are.

"Your platoon leaders have been working with me planning this little party for the last few days. They will brief you on the targets and your strike zones. I know some of you are going through withdrawals not being able to get on your hand computers and visors. That is going to change."

Evan nodded to First Sergeant Bodine who waved in the logistics team. They were carrying high-end virtual reality visors. The younger Marines were suitably impressed.

"Good friends from stateside have loaded these VR units with high resolution scenery of Morocco. You can have a virtual tour of the sights on your own time, but in the meantime, get to know the terrain as much as

possible; your lives are going to depend on it. Once we jump off, we are going to be widely dispersed. So you have to know the ground and your strike zones like the back of your hand.

"Platoon commanders, take charge of your platoons and prep them. Officer's call is at 2230. Bring me your feedback. We're all in this together."

One Company to take on a whole country. Evan thought to himself as he kept a poker face. What could possibly go wrong?

Ten days later, Major Evan Hollande was standing on the narrow beach north of the town of Larache and south of Plage sidi Mghayet. He was watching the rest of the forty boats coming ashore. His stomach was in knots. He was just getting over some queasiness from the rough boat ride. Between the wind, the rain, and the rough seas he had some difficulty keeping his last meal down. Now the tension rose as the boats came ashore. Each time a wave arrived he worried about how many boats might flounder in the surf or be dashed against the cliff face towering above him. Each boat carried precious cargo of not only Marines but the few heavy weapons they could afford to take with them.

The rain and wind was certainly to their advantage. Another hurricane was being born off the coast of Africa. The cloud cover helped against their being spotted by satellites or high flying drones. The rain would make sentries less likely to be scanning the coastline, and the visibility would reduce their effectiveness. Of course this meant Evan couldn't see the whole company arrive. He couldn't go to the aid of boats that got into trouble.

Better get used to it, Evan thought to himself. When the action starts you won't be able to see the next squad over, much less the whole company.

That was the essence of the whole effort. They'd have to move together rapidly to insert, but once they arrived at the jump off point, they'd be operating dispersed across a wide area.

Lance Corporal Leighton quietly approached the major out of the darkness, drawing Evan out of his worries.

"There are a couple gentlemen here to see you," he whispered.

Evan nodded and followed him to a draw in the cliff side. In the dark he could barely see a makeshift tent of dark colored fabric half leaning into the rock face. He followed his personal runner in and held his breath wondering if this would be an ambush.

When the flap to the tiny shelter was closed a red lens covered flashlight was turned on.

Evan could see the faces of two bearded men he had not seen before and that of Lieutenant Tariq al Ani. Tariq was Evan's intelligence officer. Before being recalled, Tariq worked for the CIA. He was fluent in Arabic, French, and Spanish, and was conversant in several other languages. Evan glanced at Tariq. Tariq winked at him, an assurance that allowed Evan to stop holding his breath. Tariq then made the introductions



"Gentlemen, I would like to introduce my commanding officer, Major Evan Hollande. Major this is Colonel Medbouh of his Majesty's Royal Guard."

Evan nodded and shook hands.

"And this is Colonel Abdelaziz of the Polisario Front."

Evan nodded again and offered his hand in friendship.

"I'm honored to meet you both, though I'm struck how such circumstances have made strange fellowships."

"Major, it is true that a few years ago the two of us would have been fighting each other, but now we all have a common enemy." Colonel Medbouh grinned at his counterpart as he finished. His English was very clear with a European accent.

The Polisario Front had been fighting for the independence of the Western Sahara from Morocco for several decades before the Caliphate swept large portions of the African continent into its grasp. When the Caliphate splintered, the Caliph of Morocco claimed Western Sahara, but discovered the desire for independence there was stronger than ever. The socialist ideology of the Polisario Front did not comport well with that of the fervor of the Salafi jihadist.

"Today, I think we can all agree the lunatics and fanatics plaguing our continent should be removed," replied Colonel Abdelaziz with a toothy grin. The old rebel's English was little rough, but still easily understood.

"Gentlemen, I would like nothing more than to sit down and talk over tea," Evan replied. "I hope we will soon be able to do so in a free Morocco. However, now is not the time. I have forty boats to account for and hide, several highways to get across, and a lot of ground to cover before sunrise."

"You urgency is well understood major," Colonel Medbouh nodded in agreement. "My network of spies and scouts are at your service and will guide your forces. When you give us the signal our underground will join yours in fighting the Caliphate."

"I will take care of your boats," Colonel Abdelaziz offered. "They will be an excellent addition to those we employ in our coastal smuggling operations. Similarly, I have smugglers on the highways you will be traversing who will keep the local patrols busy this evening. We will strike when the time is right and tie up the Caliphate's forces in the south."

"Major," Lance Corporal Leighton whispered from outside the shelter. "Captain Hillmeyer says all Marine are accounted for, but one of the boats was lost along with some of the aero-spikes."

A loss of some of his aero-spikes was bad, but Evan was prepared for far worse possibilities.

"It appears Allah the merciful has blessed you so far," Colonel Medbouh observed. "I pray he continues to do so. Just outside this shelter there are ropes to assist your men in climbing the cliff side. I have scouts waiting for you at the top."

He pulled out a map from inside his flowing blouse. It was marked with the position of Caliphate forces and equipment.

"These are estimates in many cases, and I know several of them are decoys. These Chinese decoys are very realistic."

"I thank you Colonel. We have been truly blessed with friends and allies. I look forward to fighting alongside you both when the time comes."

"Inshallah..."

Evan exited the shelter and groped around in the dark, moving across the face of the cliff toward a draw notated in his VR imagery . The draw in the cliff had been carved by a stream over millennia and was now flushed by the rainfall. Evan could hear the small waterfall pouring down from above him. Just before he arrived at the streaming water he felt the rope. He pulled on it to make sure it was secure, slung his carbine, and began his ascent. The carving of the stream over centuries meant the slope in this part of the cliff was not nearly as steep as the rest of it. Even so, he was glad for the rope.

At the top he was greeted by members of his scout/sniper team and some locals he assumed were part of Colonel Medbouh's team. The cliff side bounded the western edge of a



large coastal agricultural region in the Tangier-Asilah prefecture. The stream that had carved the draw in the cliff was fed by a stream from the runoff of the farmland surrounding them. They worked their way up the gulley of the streambed deeper into the farmland.

The wait for the remainder of the company to make its ascent was agonizing. Evan had to keep resisting the urge to glance at his watch. Finally, they were assembled in a long snakelike formation. Some gear was shuffled around to ensure the fire team that lost its equipment in the surf was re-armed.

The scout/sniper team and their local allies returned to report the way was clear. Evan then followed them. The main body would follow. As they worked their way upstream, the gulley was soon overshadowed by trees on both sides. Evan passed by a sniper team who had set up overwatch on a large farming villa not too far from the stream bed.

Probably the folks who own this land, he thought to himself. Let's hope they don't go for a midnight stroll.

The stream branched. He remembered from the VR visors the branch to the left went into a village. The company kept to the right. Their progress continued to follow the meandering stream. They avoided coming near villages or other structures. When they came uncomfortably close to any human habitat, sniper teams and infiltrators waited in overwatch as the company went by. They were moving carefully to not make a noise, each fire team keeping a safe distance from the other but not losing sight of those in front or behind.

They wound their way around a dusty, naked rise. Years ago, the hillside had been stripped bare and torn into to make concrete for the buildings in Tangier. They continued on until they approached the first human structure they had to go through.

The stream flowed through a culvert upon which roadway 415 crossed. The roadway was the local traffic artery for the farmlands and villages they had spent so much time avoiding. Evan could see the headlights of an occasional car pass by on the road above them. Further east of them, roadway 415 connected to the main highway. On the other side of the culvert, the stream they were following paralleled roadway 415 and then crossed underneath the highway.

As they approached the overpass of the main highway, A<sub>1</sub>, Evan could see the bright flames of a car fire burning, smoke rising and disappearing into the rainy sky to the south of them.

Well Colonel Abdelaziz sure was true to his word, Evan thought to himself. That is quite a distraction and quite believable given the rain.

Emergency vehicles rushed by above on the highway with blaring sirens and flashing lights. The teams were able to pick up the pace and make their way through the next obstacle. Before King Mohamed was sent into exile he had invested in infrastructure projects, including highways. Highway N1 was to be one of these and the incomplete portions of a bridge over the stream they were following loomed over the Marines. The rubble and half-finished structures provided them with plenty of cover.

Evan started to relax as he accepted there were a lot of events he simply had no control over. After spending so much time in headquarters and staff positions over the last few years, he had forgotten this fact. At first it was terrifying, but then distant memories returned of what it was like conducting operations in enemy territory. He simply had to place his fate in the hands of his Marines. The majority of them were veterans; they would look out for the new guys. Once he assented to this concept, a sense of calm came over him. As the night wore on the company continued across farmlands, using the cover of streams, drainage ditches, tall crops, and the occasional outbuilding. Slowly they rose out of the coastal farmlands and into foothills and woodlands, then back into another valley of farmland. Up more hills and down into another; each time maneuvering to avoid villages and buildings. Had they traveled as the crow flies, they would have been able to cover a lot of ground, but their need to remain hidden and reduce their tracks meant they had to travel two to three times as far. Finally, the ground began to rise again, farmland surrendered to forests and the ground became rougher and rougher. Rain gave way to sleet, and finally snow.

The going became very rough and steep as they entered the Atlas mountain range, which would be their first hiding spot. During their travels, they kept their use of IR goggles to a minimum, conserving the precious battery power, relying as much as they could on the memory of the terrain they had gained from the VR visors. Slowly but surely, each team arrived and went to their hide sites, employing camouflage netting and other equipment to blend in as they awaited the dawn.

van was able to catch a couple hours of sleep in his tiny shelter. Lance Corporal Leighton woke Evan and handed him a cup of coffee. *It's warm!* Evan raised an eyebrow. Leighton grinned back at him and showed Evan the wrapper of the self-warming MRE package. Evan was grateful for the warm coffee and the package of scrambled eggs which came with it. Relieved no one would have been foolish enough to light a fire. Still, he made sure he enjoyed his meal as close to the rock face that made a portion of his hideaway.

"Every meal a feast," Evan whispered. "Thank you."

As Evan became fully awake, he realized he was ravenous. Any other time Evan probably would have detested the MRE, but at the moment it really was a banquet to him. With a little ketchup and hot sauce it tasted finer than a meal at a fancy restaurant. Last night's march was not so distant in memory, and he had probably burned a couple thousand calories doing it. He remembered the words of an old surface warfare officer he had worked with on a ship over a decade ago:

"You can go without sleep, and you can go without food, but you can't be effective without one or the other..." the old Salt admonished. "Oh and coffee, can't do without that."

A few minutes later he crawled into the tiny and cramped cave that constituted the Company HQ. Captain

Hillmeyer was staring at a computer screen; next to him was Lieutenant "Harper" Lee.

"Good morning, Patrick," Evan said in a low voice. "How are you?"

"I'm doing well, sir." Patrick's eyes never left the computer screen as he returned the greeting. Patrick was pretty short for a Marine, and his thick framed glasses could fool people into dismissing him, but Evan knew better. Patrick was one of the few who had arrived in Mobile on an airplane. He was one of the few who were able to find work after returning from service in the mountains of Afghanistan. He was a well-known expert in wireless computer communications and had been making a small fortune in the Silicon Valley. His company was recently purchased by Cornet Enterprises. Evan also knew that, while small in stature, Patrick was very fast and formidable in a fight. Evan could still feel some bruises he gained in their last sparring session on the barge ship.

"How are we doing?"

"Hard to tell, sir, but if no news is good news, we are doing well. I'm not seeing a lot of traffic, but there does seem to be an increase. That is going to change pretty soon I'm sure."

"Any sign of drones?" Patrick asked Lieutenant Lee.

"Not in our immediate vicinity," she responded from behind her VR visor. "Hard to be certain with passive means."

Patrick, Harper, and the other electronic wizards were on the lookout for the electronic emanations which would come from any unmanned aerial vehicle or its control center.

Lieutenant Lee "Harper" Huan-Yue was another curious character in his command. Evan was never quite used to the fact she always put her family name before her given name. He was thankful she let him and the other officers refer to her by her nickname as he just could never seem to pronounce her given name properly. She was surprisingly tall, at least to Evan, for a Chinese woman. Her tall, willowy frame reminded him of his daughter, a source of pain as Evan could not remember when the last time he had seen his daughter, or her mother....

Harper's file stated she was trained to be a professional ballerina when her family fled Taiwan. When the United States withdrew from the world stage, Taiwan quickly capitulated and was one of a series of falling dominoes in the Western Pacific. Today Japan and China were in an uneasy nuclear stand-off. During her off time, Harper was an accomplished computer programmer, specializing in Chinese systems. She was quite tenacious. When



some data files arrived on the ship from Cornet Enterprises, Evan had to order her to stop combing through the files and get some sleep. Evan surmised part of her drive was the opportunity to stick a finger in the eye of the Chinese Communist Party. He would have to watch out for any sign of blood lust.

"Oh, looks like our friends are up." Patrick showed Evan the screen of his notebook computer. Leighton shook his head and grinned. The fact Evan and Patrick preferred laptops and computer screens over the VR visors marked them as technological dinosaurs to the younger generation.

Evan could see a lot of activity. Something was stimulating the air defense network of the Caliphate. Patrick's computer was connected to a small network strung out on the mountain side via fiber-optic cables and laser communications relays. Each node had a set of passive antennas soaking in the electromagnetic emanations coming from Caliphate surveillance radars and radios for miles around them. Echoes made clear the Caliphate forces were tracking some sort of an airplane with great interest.

"Time to check in?" Evan asked.

Patrick nodded in agreement and turned the screen back towards himself. Evan knew it was best to leave Patrick to his work.

Miles away an F-35C *Lightning II* from USS *Gerald R. Ford* was flying parallel to the Moroccan coastline. It stayed outside Moroccan territorial waters but remained close enough that its powerful sensors including the APG-81 radar in its nose were scouring the northern peninsula. In addition to alerting the Caliphate air defense forces, and their Chinese technicians, these emanations provided locational information to Patrick and his teams. Quickly their computer-controlled antennas focused on the aircraft.

"Hoarse Goose Confirmed," Harper said quietly.

With assurance no enemy aircraft were in the vicinity of the *Lightning*, Patrick's network sent data out towards the fighter via tight-beam communications waves. The fighter had already been transmitting data in a general broadcast mode to nearby friendly aircraft including an E-2D *Hawkeye*. While it was certain the Chinese-installed equipment would pick up the signals, it was encrypted.

Patrick's computer network now showed all of the tracks the *Lightning* had observed, and a few more sent for the company's benefit. Between the fighter's active sensors and the company's passive ones, a common picture of air defense acquisition radars and radio sites was quickly constructed.

"Enemy interceptor inbound." Evan could see the red triangle symbology of a Caliphate fighter on a closing course towards the *Lightning*. "Shutting down."

Patrick's network went back to being passive. They could not risk the enemy fighter catching a glimpse of their signals beamed back towards the *Lightning*. Similarly they could not attempt communications via satellites, as this would risk alerting the Caliphate of their presence. In the few minutes the link bridge had been established, a massive amount of data had been exchanged.

More importantly, the first appearance of the *Lightning* off the coast in over a decade had its own effect. Air defense surveillance and acquisition radars all along the coast had lit off. It appeared each had been in competition with the other to track and target the lone American fighter. By doing so, they each revealed their locations.

"Well, that was pretty good." Patrick pointed to all the ellipses indicating the probable air defense positions. "No real surprises there. The new generation air defenses are at the airports and air bases like we expected."

"That's true," Evan nodded in agreement. "But we can't be sure that's all of them, and they probably won't be that sloppy in the future. The *Lightning* caught them by surprise this time. We should expect them to relocate their forces. As things heat up, they will be moving around. That is only half the problem. Our estimations of the anti-ship missile batteries are pretty weak, and they are mobile. Time to go hunting. We'll send the teams out tonight. I want Hansel and Gretel and the Dragon's Teeth teams to go to work. Let's get eyes on those air defense batteries. Put the Spikes out but don't arm them."

"Do we shift HQ?"

"No, you are staying here to continue coordination."

"Where are you going?"

"Golfing."

hat night the company carefully broke camp and each of four platoon took its path, leaving a skeleton HQ team on the mountain. The next three nights, Evan and a platoon of Marines carefully moved west, descending out of the mountains and back through the farming valleys they had crossed two nights before, only this time they took a more northern route. Their progress was deliberate and slow. At night they crept forward, often crawling. During the day they hid under their ghillie suits and observed their surroundings or caught cat naps.

The fleet operations were having the desired effect; troops were massing between Larache and Asilah. Evan's electronics teams were constantly warning him of reconnaissance drones; fortunately the drones appeared to be focused on the coast and out to sea. The fleet gave the Caliphate troops plenty of reasons to be concerned about this location. The port of Asilah was where European forces had first entered Morocco centuries ago, and the beaches flanking it to the north and south were perfect disembarkation sites for landing boats and hover craft. Today, that point was accentuated by the appearance of an *Arleigh Burke* guided-missile destroyer twelve miles off the coast. While Evan couldn't see it, Patrick could see it clearly from his mountain top retreat and sent images via laser communications relay to Evan. Along with the images of the destroyer, Evan watched the progress of Caliphate search efforts along the coast and out to sea.

Looking for us to arrive, Evan thought to himself. We'll introduce ourselves sooner or later....

Each day, Evan and his teams would observe more forces mustering and digging in along the coastal corridor. Of particular interest to his team was the arrival of some of the mobile, missile-launching trucks. They were seeking two types, those with air defense missile systems and those with anti-ship missile systems. The local air defense missile trucks were relatively easy to identify as they were covered in sensors and the missiles were on slewable platforms. However, he knew some of them were fakes with very realistic looking weapons made from fiber glass.

The coastal anti-ship cruise missile trucks were another story. Their missile bodies were carried behind the cab. To fire them, the missiles only required the nose to be raised over the cab and blast shields lowered to protect the driver's compartment. This meant the missiles could be covered by a canvas shell. To an airplane in the sky these trucks could blend in with commercial vehicles on the same highway.

What Evan really wanted to see, but could not find, were the heavy trucks with the long-range missiles for either air defense or anti-ship ballistic missiles. The former were a threat to even the *Lightning* fighter, while the latter were a threat to the aircraft carrier they flew from. Either could hold an amphibious assault force at bay for hundreds of miles.

I wouldn't station them here either, Evan thought to himself. But they certainly have to connect with the local headquarters somehow.

Evan expected the heavy air defense missile trucks to be at the airports north and south of him. But the heavy trucks with anti-ship ballistic missiles were another matter. So he and his teams slowly inched forward each night towards their objective.

The old Asilah Marina Golf Resort had once been the gathering place of the rich and famous of Morocco. Now the golf course was cluttered with military equipment, including surface-wave, over-the-horizon, seasearch radar antennas and their support equipment. The once opulent hotel rooms were now the district naval headquarters and the barracks for Caliphate regulars, as well as the Chinese contractor technicians who operated the radars.

During the day Evan's teams observed the growing camp and its riot of differently clad troops arrive. The Caliph's guard forces were conspicuous, but small in number. They could easily be identified as they wore a distinct, dark, digital-camouflaged uniforms. They walked and moved in a professional manner, mostly ignoring the other troops, except to bark orders at militia commanders. The rest of the force consisted of different militia forces from districts across the country. Further, the men in the militias reflected the polyglot army that had swept across Africa years before. Their origins included parts of Europe, Africa, and the Middle East, and as far east as Indonesia.

Evan and his team took careful note of locations where the guard prevented arriving troops from staging, digging, or driving over. These were candidate sites for fiber-optic cables running from the coastal headquarters out to forces in the field or communications relay stations.

Evan and his team closed in on the old resort compound and started to catch sight of the Chinese technicians as they operated and maintained the radar site. They would cross the grounds of the old golf course and enter some of the ISO shipping containers that littered the landscape. By careful observation, Evan's team identified which containers enclosed working equipment, which ones were storage, and which ones were probably decoys.

They also observed security around the compound. They noted when posts were relieved, who was attentive, who was not, and which officers were the hard asses and which ones were not.

Time was running out.

*Time to kick off this party*, Evan texted to Patrick.



ergeant Rico O'Bannon was a long way from home, but sometimes when he closed his eyes and felt the warm sun and cool breeze he could just think of himself being on vacation in San Diego. The weather here was just like southern California and the Atlas Mountains they had left a few days ago reminded him of the Angeles Crest range, which loomed over the San Fernando Valley. When he took a deep breath and smelled all the burning or rotting garbage, he was reminded more of the neighborhood he had grown up in. Compton may have been lauded in rap songs, but those songs betrayed the neglect and decay that had returned to forgotten portions of Los Angeles when the US started to stagnate and pull in on itself.

When Rico was young, his mom put him on a church bus, and they drove up into the Angeles Crest Mountains and hiked around in them. When he joined the Corps, he spent a lot of time rucking around those mountains and also those around Camp Pendleton. He loved it. He loved the Corps and all the mountains around the world they let him play in: Iraq, Syria, and Afghanistan. Sure there were bad guys hunting him, but he was hunting them too.

Then the Corps told him he had to go home, that they were shrinking and he wasn't needed anymore. As bad as his memories of the old neighborhood had been, what he returned to was far nastier. He had forgotten that his mother had shielded him from the worst of it and how rough it could be on a half-Irish, half-Mexican. It was tough finding honest work, and when he came home he had to watch his back constantly. So when he received the notice he'd been reactivated, he jumped at the chance to rejoin the Corps he loved. In the Corps, no one cared who your mother was or what part of town you were from.

He opened his eyes and looked out from under his ghillie suit toward what was once known as Tangier International Airport. He couldn't remember what the frack the Caliphate guys called it these days, but he knew just about every inch of it. He had been studying it closely for the last few days. He studied it from his position, from the imagery his teammates sent him, and from angles the electronic wizards sent him. Meanwhile, other members of his platoon were planting "flowers" and other surprises.

He watched how the place ran: Who stood what kind of watch. What airplanes and drones were flying, and, just as importantly, which ones didn't—



and the shelters in which they were placed. He studied where the missile trucks and their support radars were. He watched how much attention was actually paid to which trucks. As the locals were getting more and more agitated by the fleet actions off the coast, he watched where they went when "practice," and increasingly, "false," alarms were sounded.

He knew another platoon was doing the same thing at what was once known as Tetouan Sania Ramel Airport on the other side of the peninsula. Another platoon was in the passes of the mountains which cut between them. The last platoon was down south with the major preparing something special.

Now he watched as the shadows grew long. The sun was going down and it was time to party. He heard the evening call to prayer, which was his cue; the clock was now ticking.

Off the coast of Western Sahara, near the Canary Islands, a pair of U.S. submarines each launched a full

salvo of *Tomahawk* cruise missiles. As they came ashore and crossed the southern Moroccan border, air surveillance radars picked them up. The alarm quickly spread across Morocco, but radar contact was lost as the missiles headed inland. Fearing further attacks would occur against the capital city of Rabat, or other critical facilities, technicians activated defenses across the country; these included jammers designed to defeat navigation via the Global Positioning System (GPS).

Rico's visor alerted him to the GPS jamming. He watched the operations clock as it was running.

The Chi-Coms were a little slow getting the word out, he thought to himself.

Instead of heading north towards Rabat or the three main military airfields in the middle of the country, the cruise missiles headed inland behind the southern mountain ranges and into the empty desert of Algeria and turned northeast. Morocco's air defense systems had been oriented towards the US Navy fleet to the northwest. Questions arose among the Caliphate leaders and Chinese technicians of the veracity of the initial reports. Junior technicians had a growing concern that they had created blind spots in the network.

After a little more than an hour the missile crossed back into Morocco 180 miles to the northeast of Rabat; a little over a 100 hundred miles south of the Mediterranean coastline. While mountaintop surveillance radars were able to track them, the same Atlas Mountains blocked the view of the HQ-19 missile system radars stationed near the airports. Moroccan GPS jammers were brought up to full power to mislead the missiles in hopes they would lose their way and crash into the same mountains.

The cruise missiles continued on their way as they were not dependent on the satellites above them. Instead they followed the tracks of small transmitters Marines had left for them. The receivers were affectionately known as "breadcrumbs," carefully surveyed and emplaced by the "Hansel" squad and "Gretel" squad Marines. The carefully selected path ensured the missiles would gain the best concealment by the mountains before they entered the plains where the two northern airports were located.

Rico watched as activity on the airfield increased. The air raid alarm went out. Caliphate warriors rushed to shelters or to man equipment. Rico took notice which air defense systems were actually manned up. He used his visor to confirm a particular weapons system being readied.

In addition to the high-end HQ-19 anti-aircraft missile system with its spinning "tombstone" acquisition radar, China had sold Morocco several shorter ranged missile and gun systems. These were designed to help protect the HQ-19. What had been a surprise to his team was the air defense laser system that had been deployed as well. Rico watched the teams man the trailer-mounted system and fire up the generators that fed the power-hungry monster.

*Can't have that,* Rico thought to himself as he cued a targeting laser on the aperture where the air defense laser beam would come from. *First shot of the war.* 

Rico directed one of his squad mates to fire his EMP rifle at the air defense laser acquisition radar and quickly thereafter pulled the trigger on his remote-controlled *Airspike* missile launcher.

Known as the world's smallest guided missile, the *Airspike* streaked out from its launcher, crossed the two miles to the laser system, and struck the center of the cylindrical aperture of the air defense laser. While the tiny missile only had one pound of explosives, its shape charge was more than sufficient to penetrate the aperture, in one side and out the other.

Rico knew that such a laser system would ruin the next surprise and so took the risk of directly engaging the enemy. He thumbed the keys on the palm board on his arm to activate the "flowers." Over the last few

nights, several of the "gardeners" had been scattering special devices which looked like ordinary rocks and stones. The tops on each of these "rocks" popped open and a Mylar balloon soon sprouted from it, filled with helium from a cartridge inside. As the balloons were released they rose into the sky carrying a tiny transmitter suspended below them. The Mylar balloons were quickly detected by the air defense radars which created some alarm, but the tiny transmitters were the greater threat as they were jamming the radar signals. Despite their tiny size and relatively lower power, the transmitters had a devastating effect because they were so close to the radars.

Radar-directed autocannons fired at the balloons, lighting up the sky with tracer fire. However, the jammers reduced the effectiveness of the fire. Rico knew that, had the laser been operational, it would have made short work of the balloons. He smiled when the next wave of balloons sprouted from the rocks to torment their enemy.

Rico signaled the others to start designating targets. The cruise missiles screamed in, each directed by a Marine towards its target. The HQ-19 radars and missile launchers were high on the target list, along with the sheltered, high-endurance drones used to hunt the fleet. As Rico and other Marines marked their targets, other Marines employing air-spike missiles and .50 caliber sniper rifles fired on critical parts of the air defense systems. Radar feed horns, power cables, generators, and fuel depots exploded all across the compound. Other teams did the same for critical systems of the drone fleet; taking out fuel hydrants, support vehicles, and control stations. In the midst of all the explosions, a wave of counter-drone *Airspikes* rose, taking down drones in flight.

Rico knew similar efforts would be ongoing east of him, on the other side of the mountains. Second Platoon would be guiding cruise missiles and their own weapons towards similar targets near the Tetouan Sania Ramel Airport.

*Gear in and secure,* Rico signaled the others. Carefully, Rico shut down his electronic gear and pulled all within reach under the cover of his ghillie suit. In addition to the advanced camouflage pattern, the fabric was designed to hide electronic signatures and protect his equipment.

Soon, a couple of straggler cruise missiles arrived as planned. There were no loud explosions coming from the sky, but instead an electronic assault. These cruise missiles employed the Counter-electronics Highpower Microwave Advanced Missile Project (CHAMP) system. They each sent out multiple pulses designed to fry electronics in the area. Soon an eerie silence took over and the airport was plunged into darkness.

Now it's time to get a little more personal, Rico grinned as he pulled out his carbine and thought about their next task.

s reports of damage from the northern airfields streamed into the command center in Rabat, new threats emerged. Jets appeared in the south, striking troop positions in southern Morocco. The jets were followed by tanks and mechanized infantry from the Polisario Front. Then artillery started to rain down on Caliphate troop positions surrounding the old Spanish city of Cueta on the Mediterranean coast. Commanders there reported US troops storming the beaches. Radio receivers across the northern peninsula started to report signals from US troops operating and moving inland. They seemed to pop up out of nowhere, in a wide swath bounded roughly by Cueta, Tangier, Asilah, and Tetouan.

Evan watched the battle unfolding on his visor, the data fed to him by Patrick's team back on the mountain. A team of scout snipers and infiltrators was directing fire from 155mm howitzers emplaced in Gibraltar on Caliphate troops around Cueta. The guns and a company of Marines had been smuggled into the old British fortress while all eyes were on the fleet. Those same Marines were now landing in Cueta via boats they had

driven across the fourteen kilometer gap.

In the south, a special purpose Marine Corps air-ground task force was operating F-35B *Lighting* jump jets from an austere airbase hidden in Polisario territory. Their initial strike enabled Polisario tanks, mechanized infantry, and fleets of pickup trucks to bypass Caliphate fortifications and drive northward. Soon the *Lightings* would return to challenge the Caliphate's air force, should any choose to leave the ground.

Evan could also see the progress of his virtual army as well. Another bit of mischief Patrick and his team of wizards had prepared were the dragon's teeth. They, too, looked like rocks and stones, but these had a different purpose. Evan and his planners knew the Chinese supplied equipment would quickly have detected normal radio communications. This is why Evan and his Marines communicated only on tight beam laser communication and fiber-optic networks. But the dragon's teeth were designed to saturate the air with UHF, VHF, and HF communications. By employing timed radio messages on the ground, in the air suspended by balloons, or on quad tilt-rotor drones, Patrick and his wizards could simulate a whole brigade's worth of Marines crawling across the peninsula. More importantly, this same network was recording and analyzing Caliphate troops' communications and was prepared to provide false signals to misdirect them.

Now you are truly on the horns of a dilemma, my friend, Evan thought to himself as if he were speaking to his counterpart in the headquarters building in front of him. Do you go north to stop the invasion? Do you go south to help defend Rabat? Or do you sit tight here in the resort in case we really are coming in across the beach here? And what are you going to do with those anti-ship cruise missile trucks?

The emergence of Caliphate guard officers soon answered Evan's questions. He watched as they streamed out of the headquarters to talk to militia commanders. Soon vehicles were starting up. Troops climbed out of dug-in positions and into trucks. A swirl of confusion began, caused in part by the false orders Patrick's team was injecting into their radio networks.

Okay, Evan typed on his arm console. Spike the roads, go for the missile trucks.

As Patrick got the word out, spike sentry systems would be armed. The spikes had been placed at crossroads and highway crossings across the peninsula. The tiny "spike" sentry robots contained multiple cameras similar to the ones from cell phones, which the robots used to monitor the traffic on the roads.



They identified vehicles of interest—in this case the missile trucks carrying either anti-ship cruise missiles or air defense missiles—by comparing them to an on-board template library. When a vehicle of interest was positively identified, it triggered a nearby spike missile battery to fire a missile directed against the solid rocket motor of an exposed missile, or where one would have been concealed inside a canvas cover. Normally the small armor piercing charge would not be lethal against a commercial truck, but when it penetrated a solid rocket motor engine, the results were catastrophic.

Evan presumed that the local commander would be driving the trucks south, away from the virtual invasion, to prevent capture or destruction. However, to get them

away from Tangier would require moving them past the mountains south of the city, and through mountain canyons, channeling them past the "spikes" and sniper teams.

Now was the best time, Evan decided. The Caliphate troops would be busy staying out of each-other's way, and the bulk of the guard types were directing traffic.

"Ninety-nine, this is Dagger Six," Evan spoke as he cued his VHF radio for the first time. "I'm going in." Ninety-nine meant any Marines on the net, and Dagger Six was his personal call sign as the commanding officer. Evan hoped that in all of the confusion the Chinese technicians would take too long to identify him, but that his Marines wouldn't miss it.

Evan crawled forward, then rose to a crouch and loped along. He ignored the pain in his knees and other joints for having been prone for so long. He could feel his heartbeat rise and adrenaline spiking his blood stream. Then he brought up his carbine and charged forward expecting to have to engage a sentry at the front gate, but no one greeted him. He could see two bodies on the ground at the post, blood flowing from their heads.

At least the Sniper teams heard me, Evan thought to himself. Let's hope they take care of the guards in the towers.

Evan was running at full speed when two tall lanky figures sped past him. Leighton and Harper seemed to be in a race to see who could get in front of the old major. Evan hoped Leighton would win; he could never quite suppress paternal instincts towards Harper, but then he needed her for this whole crazy scheme to work. Quickly, two more Marines overtook him as they rushed into the compound.

Their target was one of the conference rooms in the old resort where all the cables from the antennas and service equipment seemed to flow. Evan heard the dull sound of carbines with suppressors fired in quick staccatos. As he rounded the corner of one building, he could see two uniformed Caliphate guardsmen on the ground in the courtyard. Two Marines were covering Leighton and Harper as they ran across. Evan swept the area with his IR goggles and spotted another guardsmen walking out of the main building. As Evan brought his carbine around to engage the guard, one of the Marines on overwatch fired. The guardsman fell. Evan took that as a sign to move out and ran across the courtyard.

Once on the other side, he joined Leighton and Harper and put his back to the wall of the building. He looked back to cover the other two Marines as they sprinted over to join them. Once the small band was reunited, they prepared to rush the door. Evan pulled Harper back. Leighton and the other two Marines checked the door, crouched, and rushed in.

The sharp sound of Kalashnikov rifle fire pierced the air and was quickly silenced by returning muffled carbine fire. Evan released Harper and rushed inside, low looking to the right. Harper went to the left. There was a Marine on the ground; the other two were in overwatch covering the corridor, one in each direction. He could see several bodies on the floor at the end of the hall.

"Dagger One," Evan keyed his VHF radio, "this is Dagger Six. Marine down, main building."

"Roger," was the reply from the Platoon leader. "We are securing the outer compound. Corpsman on the way."

Evan kneeled down to provide aid to the Marine at his feet. Stripping away the gear, he could see Leightons face covered in blood. His body armor had stopped several hits, but it appeared a round had ricocheted up under his chin.

Leighton tried to talk, but as his lips moved, blood came pouring out of his mouth.

"Dammit!" Evan swore under his breath.

"Sir," Harper was crouched nearby. "We don't have much time."

"Right," Evan replied as he watched the light go out of Leighton's eyes and his chest fall for the last time. He took that hit for you Evan, better finish the job.



The four of them rushed for the ballroom-cumoperations center. They burst in expecting more gunfire, but instead saw half a dozen Chinese technicians operating electronic equipment. The expression on their collective faces was, at first, one of irritation at being interrupted from their work, quickly followed by shock. Harper charged forward and slammed the butt of her carbine into the chest of one who appeared to be going for something. The smaller Chinese man fell to the floor gasping for breath. The others raised their hands.

Harper looked for someone else to take on.

"Harper, take it easy," Evan commanded. "We need them alive."

Harper, despite her Taiwanese heritage, could pull off a perfect North Mainland Mandarin accent. She barked out something in Chinese that sent the others diving for the floor. She then shoulder slung her carbine and ran off towards a bank of computers. Another Chinese man was soon sent flying to the floor from behind the equipment racks.

Evan rushed over to lend a hand. When he came around he could see Harper was already sitting down with her palm computer in her lap, and a set of tools spread out before her. She quickly opened an access panel on one of the computer racks and found the data jacks she'd been looking for. She flipped down her VR visor.

"I'm in," she said calmly.

The ultimate insider threat, Evan thought to himself. This had better work or we are all going to die.

Evan's heart skipped a beat when there was a knock at the door.

"Roll Tide," Evan heard First Sergeant Bodine's deep voice penetrate the door.

"Tigers suck," Evan replied and nodded to the other Marines to let open the door.

"Good thing I came along. You almost got yourself killed." There was another team behind the big Cajun outside the door. "We're clearing the rest of the building."

"Thank you. We need to regain contact with mountaintop and get Protector on the line."

"On it. We're sending up a team with a laser com set to the roof."

Evan shifted his attention to the equipment rack.

"Harper, how are we doing?"

"Good," she replied. "I don't think they've detected me and it appears I have full access to the command codes."

"Time for false flag, then."

Harper initiated a sequence of programs. The first created a false track within the over-the-horizon radar system. The second generated an electronic signature which would correlate to an aircraft carrier poised off the coast in the same direction. She let that sink in for a bit as she initiated a trace of all the stations integrated into the network. She watched the alarm bells go off at the main HQ in Rabat at the sighting of the carrier.

"They are taking the bait."

A Marine came in with a spool of fiber-optic cable. Evan jacked it into his computer set and opened his forearm console.

Okay, Evan typed to Patrick. Time to cut them off from Rabat.

Micro charges fired, Patrick typed back.

Micro charges placed by teams south of Evan's position on fiber-optic bundles adjacent to highways and across bridges went off. While not very spectacular to anyone who would have seen them go off, they still severed the cables.

Now we should have control over the missile batteries. Evan grinned as he thought of whoever was in charge in Rabat. And we can herd Rabat toward using radios.

"I have control of the missile batteries." Harper exclaimed.

"Fire them," Evan commanded.

Harper sent the command to all of the anti-ship ballistic missile batteries to fire salvoes to cover the area her phantom aircraft carrier could possibly maneuver within.

Evan shifted his computer system to data link mode through the new communications node on the roof.

"Protector, this is Dagger Six, over."

"Dagger Six, this is Protector," came the reply from the Tactical Action Officer aboard *USS Michael A. Monsoor*. "Have you loud and clear, over."

"Are you ready with the Red network?" Evan asked Harper.

She nodded back to him as she confirmed the translator between the Chinese control system and their own was working properly.

A new voice entered the network; Evan recognized it as the commanding officer of Monsoor.

"That was quite a show you put on there. I don't think I've ever seen that many missiles in the air at once.

Just about made me wet my pants until it was clear they were flying over us. Please give us a heads up next time, won't you?"

"Sorry about that, sir," Evan replied sheepishly.

"No harm done.... Well, there are a lot of dead fish."

"Roger, sending you track data from Red Force tracking system, over."

"I've got your data. Looks like a lot of forces near your position."

In addition to the tracks of the high-end forces integrated into the Chinese network, the platoon leader was now on the roof identifying enemy forces nearby. Evan pulled down his VR visor and could see there was an ongoing firefight in the old resort. Half the platoon was inside the compound trying to secure it; the other half was ambushing Caliphate guardsmen trying to retake it. House-to-house firefights raged outside.

"We have enemy troops in contact." Evan said. That is an understatement. "Request fire support."

Evan sent the destroyer targets fed to him by the platoon leader.

"Fire mission received."

USS Michael A. Monsoor was one of three Zumwalt-class, DDG-1000 destroyers completed before the Navy was practically mothballed. She was one of the ships recently refurbished for the Expeditionary Strike Force. Her tumblehome-style hull and other features made her practically invisible, enabling her to get closer to the shoreline where other ships dared not go. Now that the danger of anti-ship missiles was greatly reduced, she could afford to come out of stealth mode. On her forward deck were two triangular gun houses. The doors on the houses opened and the barrels of electromagnetic rail guns rose towards the sky. Power from the ships super heavy generators had been feeding banks of capacitors. Now the capacitors discharged into a series of electromagnets which accelerated a steel projectile to speeds over six times the speed of sound.

"On the way."

Evan watched the video of events outside the compound on his visor. The video was sent to him by the platoon commander on the roof. Evan could see a column of troop-carrying vehicles heading back toward them. Suddenly the lead vehicle disappeared in a cloud of dirt, smoke, and fire. A couple of seconds later he felt and heard the projectile's trailing sonic boom. Even in this ballroom at the bottom of the hotel, the sound was like a freight train in the sky.

A barrage of thunder fell upon the other vehicles, and then fire was quickly directed at missile trucks which had been identified from the enemy's data-link system. Targets further inland were engaged by cruise missiles fired from *Monsoor*.

New customers entered the friendly data network. Confident the high-end air defense missiles were silenced and the anti-ship missile batteries were either exhausted or blinded, USS *Gerald Ford* closed the beach and launched her fighters. F-35C *Lightings* now joined the fight, hunting down mobile cruise missile launchers.

Evan was soon connected to the commanding general of the expeditionary brigade. The boat company had secured Cueta and was supporting the transport of French, Spanish and Royal Moroccan troops ashore. An

air assault company, guided in by first platoon, had secured the Tangier International Airport and was preparing for transport planes to arrive. Meanwhile, Colonel Medbouh's resistance forces were battling for control of Tangier itself. Evan was to prepare for the main force to come ashore here in Asilah. The resort facility was to be the new HQ for the commander of the landing force.

Evan sent Harper and First Sergeant Bodine to collect the rest of the Chinese technicians. They would be taken to the amphibious ships on the returning waves of hover craft. The intelligence folks were preparing for their interrogation and return to China. Evan made sure to tell the First Sergeant to keep an eye on Harper.

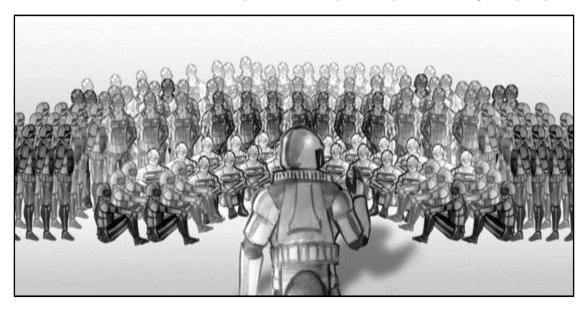
"She can scare them; just don't let her actually hurt them...."

The main objectives had been met. The anti-ship missiles, cruise and ballistic, had been effectively neutralized. Those that survived were isolated and on the run. Now it was a question of assisting the Moroccan forces to take back their country. Caliphate forces on the peninsula were either routed or surrendering.

What Evan could not see, for fear of any chance the data network was compromised, was half a dozen merchant cargo ships leave the Mediterranean through the Strait of Gibraltar and into the Atlantic Ocean. The Balkan grain aboard them would be a welcome sight to the American people. It wasn't much, but it was a sign that things were on the upswing and relief supplies would start flowing *toward* the country that had done the same for so many others, for so many years.

hree days later Evan was on the tarmac at Tangier International Airport. He and Third Force Reconnaissance Company stood at attention in the mid-afternoon sun. It felt strange to be out in sunlight; in fact, without his ghillie suit, he felt practically naked. But there was no other place he would rather be.

"Present, Arms!" he barked out. The remaining Marines in the company raised their arms in salute as the caskets of their fallen comrades were carried past them and up the ramp into a waiting transport plane.



Lance Corporal Leighton was not the only casualty at the Marina Golf Resort. Two Marines had been killed long before the assault. Apparently they had been crushed by moving vehicles. Concealed as they were, they

stayed in their positions rather than reveal the company. Five others were killed in the house-to-house fighting in the compound. In all, forty-three Marines out of two hundred had perished or were seriously wounded securing the airports, the port of Asilah, and guiding the main forces ashore. Scattered as they were across Northern Morocco they had taken on a good portion of the Caliphate's forces in a series of ambushes and retreats. Lightly armed, they had to rely on fires from artillery, airplanes, and missiles. While surprise and their electronic wizards had given them a significant edge, the weight of numbers of the enemy forces exacted a terrible price. They had also inflicted far more casualties than they had taken.

Evan spent the last two days tracking down all of his Marines.

"I owe it to them for dragging them into this crazy scheme," he had told the brigade's commanding general. Now it was time to take those who had fallen home. The company would proceed to Spain for some R&R, as Evan had promised, but he would accompany the fallen on their last "raid."

As he approached the ramp of the transport plane, Evan saw Sergeant Rico O'Bannon hobbling towards the plane. O'Bannon had been hit in the leg during a fire fight at this very airport when they took the operations center. Apparently, O'Bannon led the assault when his platoon's lieutenant was killed. Then, despite his wounds, O'Bannon directed fire on Caliphate forces and guided in the air assault company.

"Let me help you there, Devil Dog," Evan said as he took O'Bannon's arm and helped him up the ramp of the plane.

"Ooh-rah, major."

"Semper Fi."

"Semper Fi."



# **About Marine Corps Warfighting Lab/Futures Directorate**

The Marine Corps Warfighting Lab/Futures Directorate (MCWL/FD) was reorganized in July 2013 to promote greater unity of effort among the organizations responsible for capabilities development within Combat Development and Integration (CD&I). MCWL/FD is composed of a headquarters and five subordinate divisions: the Futures Assessment Division (FAD), Concepts and Plans Division, Wargaming Division, Science and Technology Division, and Experiment Division. The Director, Futures Directorate, also serves as the Commanding General of MCWL, the Vice Chief of Naval Research, and the Marine Corps Executive Agent for Science and Technology.

Futures Directorate's mission is twofold. First, it involves identifying and assessing plausible future security environments. It also includes developing and exploring warfighting concepts and concepts of operation. The purpose is to identify potential future capability gaps and opportunities in order to inform future force development.

Within Futures Directorate, FAD assesses plausible future security environments and generates ideas that inform the development and implementation of concepts, capabilities, and requirements. FAD also provides recommendations for service consideration in order to guard against strategic surprise, shape the future force, stimulate thought and debate, and inform the Marine Corps' senior leadership.

Interested readers should direct questions and comments, as well as any requests for additional copies, to Mr. Jim Trahan, Director, Futures Assessment Division, at <a href="mailto:james.trahan@usmc.mil">james.trahan@usmc.mil</a> or (703) 784-1121.

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