IDEAS & ISSUES (FUTURE CONFLICT)

Ambrosia

Chapter 3 by Mai Victor Ruble

eems quiet enough. Capt Prophet thought to himself as he scrolled through the various views of the optics suite in the troop commander's compartment of his ACV [amphibious combat vehicle]. Shifting to and fro in his "captain's chair," he desperately attempted to find some modicum of comfort in the confined spaces of the amphibious metal box. Michael "Mack" Prophet was never a big fan of the ACV, not that there was anything wrong with the vehicle itself. Compared to the ACV 2 he used to ride in as a platoon commander, this thing was the Cadillac of the armor community. The real issue was the fact that he was 6 foot 5 inches tall and walked around at about 230 pounds. Most amphibious ships could barely hold this guy, so the ACV was doomed to fail on the Mack Prophet comfort scale. A University of Arkansas graduate and a two sport Division 1 collegiate athlete, Mack was a Razorback to his core. Growing up in Little Rock, he always wanted two things: to be a Razorback and to be a Marine. As predicted by the sports pontificators, his name failed to come up in either the NFL or MLB drafts, but he wasn't that let down. He already had his package in the officer selection officer, or OSO for short, so when June came and went with no pro teams knocking on his door, he was off to OCS for the winter.

Having enlarged his visual display screen so that all of the various optical waveforms were digitally spread out in front of him, Mack knew he was rapidly running out of time. This was supposed to be an effortless delivery of a key humanitarian assistance node, not a drawn out, deliberate amphibious assault on a contested shore. But he was quickly losing the element of surprise, so if he didn't want to face the latter, he needed

>Maj Ruble is an assault amphibious vehicle officer. He is currently stationed in the United Arab Emirates.

to bypass this new threat as quickly as possible and get this desalinization plant on the ground and running. Using his index fingers to expand and contract the 3D images of the amphibious operation area, he could not get a bead on any activity-friend, foe, or miscellaneous. Enhanced zoom, expanded mode, thermal, electromagnetic, infrared, and extreme ultraviolent, all showed him the same thing. There was no reason for his active protection sensor to be going off. Of all of the next generation accessories crammed into the ACV 3, the active protection system, or APS, was top of the line. It was also incredibly reliable. If the sensor was going off, then there was something out there focusing some sort of active or passive area denial weapons system in their general direction, whether he could get "eyes on" or not. But he and the 17 other mounted high water speed sleds, or HWS-S, couldn't just continue to do ready circles off the coast of Jazireh ye Qeshm like some sort of water ballet while he tried to figure

"I got nothing, Pak-man," the infantry company commander exasperatedly stated into his intercom.

"Me neither, sir. And the overhead imagery from the Little Bird isn't giving us squat," Lt Pak responded. "What do you want to do?"

"Well, clearly someone is out there and they are working very hard to make it as difficult as possible for us to get close to the island. But we don't have time to Sherlock Holmes this thing. Between our little welcoming party and

this unknown area denial signature, I would say that our arrival is a little less welcome than we had anticipated."

"Should we just push through, then?"
"Negative. Last thing we need is our vehicles, or our Marines, getting fried. But I'm not letting whoever this is off the hook either." Mack paused for effect. He's always had a flare for the dramatic. "The gloves are coming off."

Just then the video feed from the Little Bird when blank. Unconsciously, Mack threw his hands up, as a non-verbal "Whiskey Tango Fox?!", but he didn't have to wait long for the answer to his conundrum, as from the side vision block, Capt Prophet observed the small, deployable UAV [unmanned aerial vehicle] sputter in midflight and then fall lifelessly into the blue waters of the Gulf.

"Little Bird's down hard, sir." The sense of urgency in Lt Pak's voice was becoming more evident. "Not sure what happened, but we just lost ISR [intelligence, surveillance, and reconnaissance]."

Microwave emitters. Mack said to himself. It all made sense now. That's why they were getting alerts but no readings. The countermeasures are set up to pin point either a guided munition targeting system, like a laser, or an energy weapon directed specifically at the vehicle. But a microwave array, or, in layman's terms, a microwave blanket, would make it seem like the sensors were reading a false positive since there would be multiple emitters linked together to project high powered microwaves over an area in order to deny access vice the standard directed energy weapon, or DEW. Mack was an electrical engineering major, so not only was this stuff his wheel house, but he also knew how advanced this technology was. No one currently operating in the

area of operations (AO) had this kind of advanced anti-material area denial systems, or at least nothing deployable. The fact that someone was able to not only get a system array on the island, but was able to do it without anyone from the intel community picking up on it, meant that whoever was trying to keep them out had a vested interest in keeping their presence a secret and were investing significant resources to do so.

None of which Mack was going to allow.

"Do you want me to have 1st Section send up their ISR so we can get eyes on?" Lt Pak asked over the intercom, pulling Mack from his thoughts.

"Negative. We'll only be sending it off to the same fate as the other one." Mack responded. "They've got a microwave array set up, so any thin-skinned tech going into their 'bubble' is going to get fried. Not sure if it's a constant projection over the AO or if it's triggered by motion, but it doesn't matter 'cause anything crossing that phase line without some serious counter-EW [electronic warfare] hardening is gonna get zapped."

"So, the box of rockets, then?" Pakman asked, already knowing the answer.

"Box of rockets."

The autonomous infantry fire support robot, or what is commonly known to the Marines as the "Box of Rockets, or just "the Box," due to its square shape and diverse assortment of direct, indirect, and non-kinetic weapons systems, is a robot that has the ability to operate autonomously to support infantry maneuver based on a programmed mission profile. The concept began as an "allin-one," manually operated fire support system and gained leverage around 2010 by the U.S. Army, but was cancelled shortly thereafter due to performance issues. In the early 2030s, combining the original concept with current robotics, it garnered support once again, but this time by the Marine Corps. It was designed as a solution to the dilemma of needing to maintain organic fire support capability at the infantry company level while budgetary woes continued to shrink the size of the force. Now fully fielded throughout the MEUs and SP-

MAGTFs, this system is one of the few autonomous robots the Marine Corps chose to attach to its front line units. The previous decade's rapid advancements in robotic technology, although not the end-all-be-all solution, did provide the Marines with some much needed relief, and some really cool gear. The box of rockets was one of the first designs— so it doesn't have the sleek lines or modern aesthetics of the current Bots being used by the other Services.

to his landing seemed to be escalating exponentially from what was briefed by "the Deuce," or S-2 intelligence officer.

"Apache 6 override," Mack spoke in a muffled tone, prompting his command suite to come alive. Projected in front of him was 3D imagery of all 22 vehicles in his armored amphibious battle formation. Of the 18 performing "Gator Circles," or ready circles in an amphibious assembly area, one of them stood out from the rest. Mack pressed on the

The box of rockets was one of the first designs—so it doesn't have the sleek lines or modern aesthetics of the current Bots being used by the other Services. What it lacks in looks, it makes up for in muscle.

What it lacks in looks, it makes up for in muscle. Big, bulky, and ugly, the Box propels itself via a track-based suspension system due to its size and weight. It is fully amphibious in that it is water proof up to 100 feet, but has no water propulsion system, so it needs a sled in order to go from ship-to-shore. Its exterior armor is enhanced to withstand direct fire attacks up to 30mm API [armor piercing incendiary] and indirect fire up to 155mm. In conjunction with its external armor protection, the Box has hardened internal subcomponents to be resistant up to a low-yield EMP [electro-magnetic pulse], and the armor has reflective capability, making it able to deflect most crew served DEWs.

Unable to get an accurate reading on the extent and magnitude of the anti-access array, Mack wasn't certain that the Box would withstand a barrage from the microwave defensive perimeter, but he figured that with its enhanced armor and hardened subcomponents, if anything they had was going to be able to push through, this bad boy was it. Plus, he was running out of time and with four of his tracks off screening his western flank, Mack felt it was better to make the attempt with the robot rather than risk any more of his manned combat power ashore; especially considering that the significance of the opposition

small square located at the lower right hand corner of the projection, expanding it so that filled the space over his lap in front of him. Resembling a large, square storage container, the robot sat unimpressive and unimposing.

"All Apache victors, this is Apache 6." Capt Prophet spoke aloud, this time over the company tactical net. "As many of you have probably been made gently aware of by your tracks," he joked, knowing that their defensive alarms were just as a blaring as his, "we've hit some sort of defensive EW array, meaning that there's someone out there that doesn't want us on that island. Based on the tech, I doubt they're local. Maintain current position in amphibious assembly area. I'm sending in 'the Box' to feel these guys out. Stand by."

Responses in the affirmative, ranging from "Roger" to the more colorful "F___ in' A," immediately followed from all of his platoon commanders, with the exception of Lt Rosado, who was still on the flank and out of range, hopefully.

Although it wasn't necessary, Mack covered the microphone embedded in his comm helmet. If asked, he would respond that the reason he did that was subconscious, a left over action from a time of antiquated technology. What he wouldn't admit, especially as some-

one who spent his time in academia studying electrical engineering, is that he still didn't trust the sophisticated data comm suite to be able to decipher between when he was talking to the system, or when he was talking into his comm. So in a way, he was helping the ACV out so it wouldn't get confused; even though the ACVs comm system was so acute it could practically finish your sentences for you.

"Razorback. Razorback. Razorback." He uttered and with that simple, preprogrammed command, Mack could see the HWS-8 carrying the infantry fire support robot lurch, and then divert

from the formation.

Grasping the control stick protruding from the bulk head to his left, Mack began to direct the HWS-S and its cargo toward center beach. With his free hand over the holographic keypad projected directly under the streaming video screen, he began to type in a new set of commands and mission profiles for the robot to follow once deployed. Focusing on the words "Neutralize" and "Suppress," he was about to click the "Send" icon when a familiar, and welcome voice came over his comm helmet.

"Apache 6! Apache6! This is Hollywood! Do you read me?!" Aidan sounded like he was in a near panic.

"A little too loud and too clear, Hollywood. What bee has gotten in your bonnet?"

"Sir, do not begin your landing. I'm about 5 mikes from your pos, but I'm sending over video from our engagement now. This will not be an unopposed landing. I say again, there are hostiles in the AO!"

"Way ahead of you Hollywood." Mack said, reaching for the "Send" icon on his screen. "Don't worry yourself. Just sit back and enjoy the show." As he pressed the holographic projection hovering over his lap, the text bubble detailing the Box's new mission profile vanished and within an instant the once seemingly lifeless cargo box jumped to life. Through the video image, Mack could see the lights of the multitude of optics cycle through its self-diagnostic inspection, most likely adjusting from its previously programmed mission set it's freshly received orders.

The Box's HWS-S approached the area where Pak-man's quad copter went down, and without hesitation, slammed into the invisible microwave barrier. The HWS-S lurched and the video screen in Capt Propher's troop commander's station went blank. Well, let's hope my suspicion was correct. Mack thought to himself as hit sat in a newly darkened battle station.

Lt Rosado still had full overhead video from his Little Bird, so they weren't completely blind. Seeing sparks spew from parts of the engine compartments of the HWS-S's water propulsion system and guidance control box and the presence of Pak-man's Little Bird floating on the surface of the water, Aidan knew to hold his own UAV back so he could try and glean some sort of situation awareness, or SA, from Mack's cryptic radio transmission.

The lone HWS-S, although effectively destroyed, continued to move toward the island, gliding across the water under the power of its own momentum. Having been just travelling at nearly 30 knots when it hit the antiaccess defensive grid, it continued to move across the water at a decent speed, covering significant ground as it did so. Aidan zoomed his UAV's camera to see if the Box had survived. Based on the lights flashing around the multiple optic ports and fact that the robot seemed to be quivering under its gripping cables, Aidan deduced that the Box not only survived the attack, but was p!

As the sled slowly came to a halt just over a click from Qeshm Island's shoreline, the Box was visibly anxious Shaking on its tracks, it could no longer stand the wait. With the power train of a main battle tank, the Box broke free of its griping cables and launched into the water, instantly sinking to the bottom of the Gulf.

"Hollywood, you got eyes on?" Mack questioned.

"A firm"

"I'm gonna synch it up. Mine's in the drink."

"Roger. Pak-man's piloting skills at work again?" Aidan poked, knowing that Andre was monitoring the company tactical net, as he transferred the link to his UAV's feed over to his company commander. "Got it." Seeing that the sled was empty and there were large ripples emanating from just in front of it, Mack surmised that the Box had gone for a swim.

Aidan was at the maximum zoom capacity for the Little Bird's smaller camera, but there was still good visibility even from this range. He was very curious as to whether or not he was about to see something really cool, or if he just witnessed a multi-million dollar debacle. He knew that the Box was advertised as being amphibious because of its heavy water-proofing, but after minutes passed with no activity, he felt like his doubts about the Box's water tight integrity were highly exaggerated. He was about to call over to Capt Prophet to begin formulating an alternate course of action when...

It appeared.



