MARSOC



RAIDER 40: VOL 1-1 UNCHARTED

A Fictional Intelligence (FICINT) Short Story Author: Akhil Iyer

Mentored by: August Cole and P.W. Singer





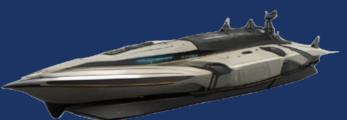


The following "useful fiction" is designed to illuminate key elements of the MARSOC operational concept known as SSR — Strategic Shaping and Reconnaissance. In 2018 the MARSOF 2030 Vision showcased the original "Safe Harbor" story. "Safe Harbor II" is its sequel, It depicts a futuristic environment to facilitate discussion about transforming the Raider force toward a new 2040 Vision and associated supporting operating concepts.

This story builds upon the "Safe Harbor II," writing and is part of Volume 1 of the Raider 40 Series, referenced as Raider 40 Origin Stories.

The intent of this story is to envision the intersection of Marine Corps Special Operations Forces and future Marine Air Ground Task Forces, and how MARSOC's SSR concept and the Marine Corps Recon/Counter Recon (RxR) complement each other in the competitive environment.

The story is also intended to spur conversation about adversarial employment of autonomous systems and how best to leverage the unique personal backgrounds and skill sets possessed by Marines of the future.



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GLOSSARY

AOR: Area of Responsibility.

A&S: Assessment & Selection is the screening process for MARSOC candidates.

AR/HUD: Augmented Reality Heads-Up Display, typically goggles or glasses.

COCOM: Combatant Command authority, a continuing mission under a single commander (composed of joint services).

CONUS: Continental United States of America.

Hack Room: Unofficial space where like-minded individuals gather together to accomplish a cyber goal or share the skills needed to complete a task. This goal may be constructive, defensive, or even nefarious, but it is a collective effort.

Info-War: Cyber-Intel (Communications and/or AI) operations conducted in order to gain an information advantage over an opponent.

ITC: Individual Training Course is an introductory training program at MARSOC.

LAAD: Low Altitude Air Defense battalion.

LPD: Landing Platform Dock, an amphibious warfare ship.

MAGTF: Marine Air-Ground Task Force.

MARSOC: Marine Forces Special Operations Command. Home of the Marine Raiders.

MLR: Marine Littoral Regiment.

MOS: Military Occupational Specialty.

MRD: Marine Raider Detachment.

MSOT: Marine Special Operations Team.

MWR: Morale, Welfare, and Recreation room.

Reach-Back Support: the ability for forward-deployed units to refer specific intelligence oriented questions to CONUS-based command/agencies for support.

RHIB: Rigid Hull Inflatable Boat, AKA Combat Rubber Reconnaissance Craft or Zodiac.

SCIF: Sensitive Compartmented Information Facility ("the Hive").

SOCOM (also USSOCOM): United States Special Operations Command.

StarShield: Military version of the StarLink Satellite Communications Network.

UAV: Unmanned Aerial Vehicle, any type of aerial drone.

UMM: Unmanned Maritime Military Militia, collective term referring to a group of surface, submersible or semi-submersibles (maritime drone craft).

TASK FORCE STEELER 1400 - LOCAL: SEPTEMBER 2, 2040

"The fleet is turning this way again!"

Corporal Hassan Hameed didn't have time to look up to see. He had just ingested another face full of seawater at the bow of the Rigid Hull Inflatable Boat (RHIB) and was trying to get his Augmented Reality (AR) Glasses working again. No luck. He couldn't get commands out to his set of flying drones that dropped into the water to execute their tasks autonomously.

Too bad he didn't have a set of the sleek "Cormorant" advanced swarm drones he had seen a detachment of Raiders use once when visiting the Task Force's aging flagship, USS *Pittsburgh* (LPD-31).

Still, Hameed's drones, with some makeshift additive modifications, should have been able to jam or directly impede the fleet of adversary unmanned semi-submersibles massing 4,000 yards off the port side of the Pittsburgh's sister ships, the Coast Guard Cutter *Vigilant* and Australian frigate *Flinders*.

"Maybe it's the underwater currents?" Hameed thought to himself as he cycled the power on the system's antenna while also using it as a handhold, bracing for the next swell.

Squinting at the sunlit surface of the Indian Ocean, Hameed's mind wandered to something more devious as a green light on the base of the antenna pulsed at its normal interval.

"Maybe some malicious code infected the system's software?" He pondered, having recalled reading about FedEx's recently corrupted drone delivery software.

The seemingly isolated "info-war" incident involving a Raider unit in the Arctic only weeks ago had been eclipsed by the near sinking of a U.S. flagged merchant vessel carrying the latest shipment of U.S. military hardware to a Pacific ally. Since then, Task Force Steeler drilled nearly every day to prepare for a kamikaze submersible or hypersonic missile attack in the event that a crisis an ocean away turned hot across the globe. Yet despite these heightened risks, daily competition continued, albeit with what Hameed hoped was an eye towards preventing inadvertent escalation.

"Screw it, going old school, sir," the 5-foot-7 Hameed told Lieutenant Ronnie Highsmith, a towering former college linebacker who Hameed had never seen smile. Right now it was no different as the officer impatiently urged him to speed up the switch to a backup tablet that could manually link with his drones.

Hameed hadn't used the backup tablet since his entry unit training. In fact, the tablet case was still stenciled with "Third LAAD," whose name had long since changed to "Third Littoral Defense Battalion."



Still, Hameed and others assigned to the unit continued to informally call themselves the "Anti-Anything" Battalion. After all, the expansion beyond the unit's original mission of antiair defense inevitably meant that the 24-year-old "counter-systems operator" had to lug around more gear for each situation: detecting and mitigating a variety of air, ground, and subsurface enemy platforms. Ideally, all these systems to counter enemy swarms worked seamlessly together. But that rarely happened.

So Hameed couldn't help but laugh at how the situation had so rapidly deteriorated: His drones couldn't affect the situation, his AR headset to control them wasn't functioning, his backup tablet displayed an endless loading icon, all while his lieutenant's voice got angrier with every crashing ocean wave.

Hameed's chuckle turned to a muzzled curse, which he directed at his equipment and at the way events unfolded. It wasn't the pitching ocean and incessant chafing that bothered him after hours of being soaked in the RHIB. After all, he did spend his childhood years in this same ocean, playing in its coastal swells. No, what bothered Hameed was just how good the adversary swarms were, and how creative they had become. Hameed imagined himself in the shoes of his adversary, probably an even nerdier but less adventurous version of himself comfortably relaxing in some East African villa. His counterpart probably had a better setup too, Hameed imagined. Likely a fully immersed VR gaming console displaying multiple satellite feeds of their Unmanned Maritime Militia (UMM) that had been remotely tasked with specific instructions hours ago.

Today's bot-on-bot, algorithm-on-algorithm game had become a regular occurrence on this deployment. But with each additional encounter, the risk of direct confrontation grew. Instead of using this autonomous swarm of semi-submersibles to directly challenge the amphibious operations of the embarked Marine Littoral Regiment (MLR), Hameed's likely counterpart chose an indirect approach. After all, they too sought to prevent inadvertent escalation while still achieving their regional ambitions.

With intimate knowledge of the fishing patterns, Hameed's nemesis had effectively used their fleet of autonomous undersea vehicles to drive the fisherman's prized catches directly into the path of the MLR's flotilla. It was the fleet of fishermen, not sleek enemy semi-submersibles, that now stood less than 2000 yards off the front bow of *Pittsburg's* escorts.

Soon, *Flinders* and *Vigilant* had no choice but to give way and change course for the entire Littoral Ready Group, less they impede on the livelihoods of the local fishermen increasingly desperate for what was left of a good catch.

Hameed tapped the "Come Home" icon on the tablet's screen, hoping his bots might get the signal, and then looked up at his platoon commander.

"These swarms are literally boxing us in, along the coast, and now at sea. Fourth time this month, right?" said Lieutenant Highsmith, his frustration evident in the tone of his voice.

"Fifth, sir, if you also count that time the unmanned militia nearly rammed our host's landing craft when we were doing those offload drills," Hameed said. "This is only my second rotation out here, sir, but honestly, I got to say these guys are good. Better than they were 3 months ago and using some new tactics ever since the latest incident."

"So much for freedom of maneuver," Lieutenant Highsmith muttered as he gestured to the RHIB driver to begin their return trip to Pittsburgh.

BELOW DECKS, USS PITTSBURGH - 2300 LOCAL: SEPTEMBER 2, 2040

It was now late, but Hameed and his squad weren't done cleaning and re-programming the operating code for the submersible drones that had miraculously returned from their thwarted mission. The squad had sat down in the Pittsburgh's lower well deck, a quieter spot away from the flight deck that remained ever buzzing with rotor blades. There, Hameed projected a holographic rendering of the drone swarm's mission over time, with call outs on where each drone had lost its signal or its track of the adversary craft. "I think they're blocking the connectivity to StarShield," said one of Hameed's junior Marines.

"That doesn't matter, our drones don't need a satellite link to operate. The real issue is this..."

Hameed backed out of the currently projected view and began playing a three-second clip on a loop from the holographic projector.

"See here, the drone's computer vision should have identified this as an adversary submersible. But see these pixelated distortions emanating from the enemy craft? It's fooling the drone into thinking it's a school of fish," he said.

Hameed didn't have to explain further. All his junior Marines got it. In fact, there was likely at least one in his squad that had learned from their older siblings how to fool their hometown's facial recognition cameras, duping the system into thinking that Olivia Rodrigo was trespassing on school property. Before they had stepped onto the Marine Corps yellow footprints, a few of these "Gen A" Marines had likely donned 3D-printed glasses with just the right geometric configuration of pixels to algorithmically match what that trained model believed to be the aging singer, or perhaps even the high school's biggest bully.

"Let's tag the images now and re-train the model," said Hameed, "And then let's get this stuff packed up and back in the container, I don't want to be here all...."

"Corporal Hameed."

It was Lieutenant Highsmith, who now stood with his arms crossed amid the Marines. Oddly, he looked happy for once. He wasn't smiling, but it was something about his eyes that gave away his excitement.

"You need to come with me to the operations center. I'll share what I know on the way up."

OPERATIONS CENTER, USS PITTSBURGH 2345 - LOCAL: SEPTEMBER 2, 2040

"You're from this part of the country, right Corporal Hameed?" said Master Sergeant Alex Gutierrez, a Marine Raider who served as the MLR's SOF liaison. He locked his unblinking gaze on Hameed while he waited for a response, which took a moment. Then he gestured to a map at a spot on the other side of the Indian Ocean from where they were currently operating.

Mission Time: 01:12:27:

Hameed wasn't looking at the map, though, but was studying the Raider insignia on his uniform. Last time he had looked that closely at the dagger and eagle device was in his squad bay at Boot Camp, where the photograph and Navy Cross citation of Staff Sergeant Nick Jones was prominently displayed in his platoon's quarterdeck.

Gutierrez cleared his throat.

"Yes, Master Sergeant, I grew up there. Well at least until I was eight, before my mom and I moved to Houston," said Hameed.

Hameed naturally didn't interact much on this deployment with the Master Sergeant, an unassuming Marine also about Hameed's height but known by reputation aboard ship for his inescapable arm-bar on the Jiu Jitsu mat. Yet Gutierrez was also seen hanging out in the "Hack-house," the old MWR room on the Pittsburgh that now became a meeting point for software hackers looking to swap the latest code.

It was also where the Master Guns gave a quick brief for several Marines and Sailors interested in screening for Assessment and Selection.

Hameed was a regular at the hack-house, but hadn't gone to learn about MARSOC. While that brief visit by a previous Raider Detachment and their slick underwater drone did pique his interest, the whole conception of that lifestyle still intimidated him. Hameed might have been on his high school's varsity robotics team, but he was definitely not on its wrestling squad.

"And are these some of the members of your family or those that you have known previously?" said the MLR's information operations officer as he brought up a network analysis of Hameed's social media profile.

"Yes, they are, sir," said Hameed. "Am I in trouble?"

Hameed looked at the geo-located portions of the same map now depicted on the screen of the Operations Center. He figured this was information his command already knew. After all, it was on his security form. And he had heard stories of other Marines whose prior backgrounds were of direct use in new collateral assignments. But as he looked at the geo-located depiction of his social media profile projected on the map, he also noticed a larger web of dashed lines crisscrossing the Indian Ocean, connected to additional images of people and places he did not recognize.

The Master Sergeant now walked over and put his hand on Hameed's shoulder. The grip felt like if he wanted, he could snap Hameed's collarbone without much effort.

"Corporal, you're all good. We just want to get you up to speed on an opportunity for us to combine efforts across the MLR and MARSOC. Your background, language skills, and MOS specialty as a counter unmanned systems operator will all come in handy. And it might even help with the pesky drone problem that you and Lt. Highsmith keep getting into."

Gutierrez escorted Hameed to a side door that led to a smaller room, neatly organized with several computer stations and overhead displays. The Raider gave the Corporal a pair of SOCOM issued AR headsets, much better than what Hameed had been using.

Both Marines sat down and powered the devices up that would make a virtual boardroom come alive. Still, each took out their trusty green notebooks.

Gutierrez and Hameed then joined a virtual tabletop meeting with several participants already discussing the same linkages across the globe that Hameed had seen on the Pittsburgh's operational displays. As the VR glasses adjusted to Hameed's eyes, the names and locations started to display digitally in the foreground below each participant's face:

LtCol Marcus Wright and Master Sergeant Lisa Vaughn, MARSOC HQ, "The Hive"

Chief Warrant Officer Salvatore Lecce, MRD 8443, "Team Arctic Ocean" Staff Sergeant Vijay Williams, MSOT 8332, "Team Indian Ocean."

As the Marines from across the world recapped some of the insights from the preceding weeks and asked Hameed a few questions about the activities he observed, the Corporal's leg began to bounce. He refocused himself, stopped the tapping, and began to write copious notes. His pen slowed and then he sat upright, as the team informed Hameed he would be part of an upcoming operation unlike any he had done before as a Marine.

🛧 MSOT 8332 2300 - LOCAL: SEPTEMBER 18, 2040

"Great to see you again," Hameed muttered in his native tongue as he hugged his cousin whom he hadn't seen in person in 15 years. For a moment Hameed's mind was transported into his childhood home, with the smell of the ocean, a faint whiff of freshly caught fish, and a familiar face who still had that small scar visible from the distant time they both got caught up in the surf and tumbled headfirst into the coral.

Well, almost home. As he left the embrace of his cousin, the uncomfortable foreignness of the situation crept back in. The whole situation was, in fact, a little strange. But Hameed loved that feeling. It was the uncertainty of the situation and the series of events over the past two weeks that made him tingle a bit with excitement. He tried to regain his composure, focusing on redoing one of the top buttons on his tropical linen shirt he'd bought nearby a few hours before. He hoped he could at least partly exude the same dispassionate look of the Marine Raider Detachment's Intel Chief, Staff Sergeant Vijay Williams, standing nearby and sporting a green cricket shirt that had seen its fair share of wear.

"I know we can't help more, but hopefully this is enough," Hameed's cousin muttered to the two Marines as he transferred several digital contact cards to the Staff Sergeant's burner tablet.

"This is plenty of help, cousin," Hameed replied. "Ultimately this will really help all of us. Including this country's future."

"Look at you, Hassan. We're so proud of you," his cousin smiled as he spoke. "When you and Auntie left for the U.S., we didn't expect to see you again. Look at you now, still making your way back here and fighting for us too."

"Thank you again, cousin," replied Hameed as he placed his hand on his own chest, a sign of respect for the willingness of his relatives to help connect the Marines to the network of electricians and landlords along the western side of the island.

Soon, Williams and Hameed were back in an old, unremarkable Toyota SUV on a circuitous route back to the Raiders' mission support site.

The car ride was silent as Williams maintained a stoic expression, shifting focus between the pedestrians alongside the narrow road and glancing at the text updates that were populating in his contact lens. Hameed now had plenty of time to ponder the situation.

He tried to piece together how this whole excursion away from his squad-mates aboard the Pittsburgh would unfold now in the next forty-eight hours. He was surprised at how much time the Detachment's Intel lead took to explain the situation to Hameed. While he still had some holes on how this operation was coming together, he got the gist. His nerves tingled once more at the thought of denying access to re-charging and servicing stations for the adversary's power-hungry unmanned fleet.

This is our indirect way of messing with you. Hameed thought to himself while re-imagining his faceless adversary, likely still relaxing in his air-conditioned hooch in the same position as Hameed imagined him weeks ago while the Marine was ingesting sea water aboard the Pittsburgh's RHIB.

Little did he know that a real photo of Hameed's nemesis was the home page in the intelsharing workflow tool of two different Marine Raider contingents spanning both sides of the Indian Ocean, as well as "the Hive" back in North Carolina. Any reach-back support specialist from the Hive who clicked on the portrait would unearth a digital canvas with handy visualizations of recent actions, remaining taskers, and contextualized meta-data. From there they could also review an auto-generated report of all crypto-currency transfers between crooked businessmen and several prominent party officials seeking to maintain the rising power's access to clandestine re-servicing facilities for their unmanned maritime militia.

"You can't join for this next part but get some sleep, and tomorrow I'll at least have you come to the ops room," said the Staff Sergeant as he parked the car in the support site's stifling hot covered garage.

"There's no video feed to watch, we don't do that type of stuff anymore, but you'll still get to observe."

MSOT 8332 - 0100 LOCAL: SEPTEMBER 20, 2040

Staff Sergeant Williams was right. There were no video feeds or holographic displays like aboard the *Pittsburgh*.

Rather, it was a relatively empty room now occupied by Hameed and the Staff Sergeant. Both had donned Virtual Reality glasses, through which they could view a digital rendering of the operation unfolding.

Hameed ignored the text-boxes that populated the corners of the glasses projection and focused instead on the two autonomous companions charting a path for the

trailing Raider swimmers approaching the adversary's unmanned maritime servicing site.

Man, I'd love to be out there, thought Hameed, who was standing inside the Detachment's Operations Room alongside Williams. This wasn't just another operation on the water.

Hameed certainly enjoyed even those rough RHIB rides, but what had changed in the past two weeks was the Corporal's curiosity about just how all of this came together — and just who those MARSOC Marines were. He got to see snippets of it and even a key piece that he helped bring together. But he wanted to see what winning looked like at the end of it all.

Well, at least for this small act against a malicious power.

"Everything going to plan so far?" asked Hameed, who sought to time the questions only for when it seemed that the Staff Sergeant had a lull in his oversight of the mission.

"So far. It will take some time for the element to reach the servicing station," said the Staff Sergeant.

"What are they going to do when they get there?"

"Come try out with us and find out for yourself."

"I guess I'm just not sure if I want to make it a career," Hameed said.

"You know you don't have to make that decision now. The MRD Chief has broken time, went to work in deep sea mining before coming back. Actually, it has come in quite handy for this part of the world," said the Staff Sergeant. "I may not have mentioned it but I'm a reservist. Work in data science back home."

"So that's why our drone's identification model got even better."

"Oh no. Please, every Raider element nowadays adapts their own machine learning model to fit the local environment."

The Staff Sergeant pushed an image to Hameed's VR showing the portal the Raiders used to update their models in real-time while deployed. "The data science part comes in handy when I'm connecting the dots across the ocean; from your MLR, to the unmanned maritime militia, to their handlers, and yes, to you and your cousin's handy contacts across the island.

But I should stop there, they are about to start actions on. Again, come join us if you want to really find out."

Both men shifted eye focus back into the AR glasses as updates started streaming onto the display.

Hameed had the last word, surprising himself by saying it loud enough so that the Staff Sergeant could hear. "Maybe I will."

TASK FORCE STEELER 1400 - LOCAL: OCTOBER 1, 2040

Corporal Hameed kneeled at the front of the RHIB, watching his small drones slip seamlessly below the surface of the now calm waters of the Indian Ocean.

"There's no maritime militia to chase, but why don't we see if we can't find a whale or two," said Hameed as he took off his AR glasses and gave them to the Australian sailor who had joined them for the ride-along. HMAS *Flinders* would be getting their own set of submersible drones, and their crew wanted to know how to use them before they arrived.

Hameed stood up and began making his way to the back of the RHIB. He caught a glimpse



of a smile from Lieutenant Highsmith before his platoon commander turned to the driver.

"We should be wrapped up in an hour, then we can head back to Pittsburgh," said Highsmith.

"CO said that she might be pulling chalks earlier, sir, heading farther east to spread out the task force," the driver replied.

"Makes sense. Might as well take advantage of the situation to show the presence of the MLR in these waters," said Highsmith

"Works with me," muttered Hameed.

Corporal Hameed now had a content look on his face knowing he'd be able to make it back in time to link up with Master Sergeant Gutierrez for a Jiu Jitsu lesson from the Raider he now looked up to.

CONCLUSIONS:

- The story provides a scenario to demonstrate the interrelated employment and relationship between MAGTF and MARSOC elements across Geographic Combatant Commands.
- Relationships with host nations, inter-agency, and liaison elements are critical in leveraging the combined effects of synchronized conventional SOF activities, including in competition. Each Marine's personal skill-set and relationships beyond merely their MOS, which can be an incredible force multiple if identified and appropriately levied against emerging opportunities.
- Marine Corps Recon-Counter Recon (RxR) framework and MARSOC's Strategic Shaping and Reconnaissance (SSR) can work hand in hand to maximize effects across conventional and SOF-peculiar activities in the competition space. Understanding the adversary's technological dependencies and vulnerabilities remains critical to achieving positive effects.
- Connecting and inspiring the next generation of Marine Raiders remains timeless and occurs at all levels and locations in which MARSOC operates in conjunction with conventional counterparts.





The contents of this pamphlet are unclassified.

MARSOC CD&I G5 appreciates the time you have taken to read this RAIDER 40 Origin Story. It will be used to develop the Future MARSOF 2040 Vision, Strategy and Operating Concepts. Your involvement and feedback are a critical tenant to making MARSOC successful in the future.

MARSOC would like to continue the publication of Fictional Intelligence (FICINT) to promote and shape the MARSOF community's understanding and investment in the future. It takes readers like you to generate and promote ideas, write papers and tell your tales to resonate across the force for generations.

FICINT is a mechanism for telling the future through stories that make people think, respond and get involved. Topics for writing are nearly unlimited, the majority of which will directly affect the MARSOC future force design, force development, and force employment.

Please provide feedback, comments, and questions to the CD&I – G5 Strategy and Plans Branch, located in RR400, on Stone Bay, Camp Lejeune North Carolina.

For more information please send your inquiries to: marsocofficial@socom.mil