

Hiding in Plain Sight

OpSec for the 21st century

by Maj John G. Long III, PhD

Legend has it that if you catch a leprechaun, he must take you to his pot of gold. One day, a lucky Irishman caught a leprechaun napping in the woods, who dutifully agreed to show him where his gold was buried. Deep in the woods, the leprechaun pointed out the tree under which he had buried his gold then demanded his freedom. The Irishman, needing to retrieve his shovel from home to dig up the gold, and worried he would be unable to find the tree again, marked it with a red string and extracted a promise from the leprechaun that he would not touch the string. He then freed the leprechaun and ran home to get his shovel. When he returned, he was dismayed to find that while the leprechaun had kept his promise not to touch the original string, there were now identical red strings on every tree in the forest. The Irishman spent the rest of his life digging under trees, but never found the gold.

The proliferation of easily networked sensors combined with the increasing ef-

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fectiveness of precision lethal fires have made detection by an adversary tantamount to destruction. On a battlefield where being observed rapidly leads to being destroyed, concealment will be critical to survivability. Yet, judging by how we act today, we have lost the art of concealment. Nearly two decades of combat against clever but technologically unsophisticated foes have dulled us to the need of not being seen.

Based on how we act, many Marines seem to misunderstand concealment, or

at least they have a myopic view of how to achieve it. Concealment—as per its military definition—is protection from observation or surveillance. What does it mean for an object to be protected from observation (i.e., unobserved)? It does not necessarily mean invisible or unseen. It means the target cannot be discerned from its surroundings. A well-camouflaged object can be hard to pick out even when you are staring right at it. We attempt to conceal ourselves when we use camouflage to make ourselves look like our surroundings. But there is another route to concealment—instead of making ourselves look like the surroundings, we can make our surroundings look more like us.

The leprechaun used the second method. The tree with the red string under which the gold was buried was left untouched after the Irishman left and was still sitting there in plain sight when he returned. But now, every tree had a red string, so the tree with the gold looked the same as every other tree. Concealment was achieved not by changing the target tree but by changing the forest.

To Be a Needle in a Haystack, Bring Your Own Hay (or a Lot More Needles)

As we plan and prepare for conflicts with sophisticated adversaries against



Natural camouflage. (Photo by Sgt Michael Connors.)

whom detection is tantamount to destruction, we need to be prepared to employ both methods of concealment: making ourselves look like our surroundings and making our surroundings look like us. There will be times when one method is easier to employ or provides more benefit than the other. But there will likely be times when employing both simultaneously can make it all but impossible for an adversary to detect us in time to take counter action.

This is particularly important when we move beyond talking about being seen in the visual spectrum and start thinking about a unit's electromagnetic (EM) signature. Modern military forces bring with them a plethora of radio communication devices—HF, VHF, UHF, SatCom—a veritable alphabet soup of acronyms that I will not waste page space by listing. Suffice it to say, when our adversaries look in the EM spectrum, U.S. forces show up like a sparkle of fireflies on a dark night.¹

Our adversaries are aware of this and have made great strides in improving their ability to detect us so they can close the reconnaissance-strike kill chain. We too are aware of this and have put a growing effort into minimizing our EM signature to thwart them: we have instituted emission-control protocols so that units only transmit what and when necessary; we have invested in low signature radios that utilize low power, burst, or narrow-point transmission; and we have even looked at our SOPs to minimize the amount of information we need to transmit to communicate (i.e. do not send a 50-slide PowerPoint deck when a text string will do).

But these efforts will not be enough. As an increasingly networked force, our communication needs will only grow. Clever technology will slow the rate of growth, but there is no magic pixie dust that will reduce our emissions. We will therefore increasingly find ourselves on the wrong side of an investment/counter-investment arms race—one in which the seeker has an easier job than the hider. For each move/countermove, the hider must invest more to establish an edge than the seeker does to regain parity. This asymmetric payoff profile

will force the United States to invest much more to hide than a seeker will need to invest to find us. Against an adversary with limited means, we can win this investment race. Against a peer, we cannot.

Instead of continuing along the path where we bankrupt ourselves trying to be invisible, we need to pursue options that reduce our need to be invisible. This will have the dual benefit of not only being cheaper but also far more

be too late. We could use this time gap to our advantage in a strike or raid, or to move to a new location. Nor should we underestimate how introducing uncertainty into the enemy's understanding of the battlespace can complicate their decisionmaking.

One could envision this as a job for drones. A large swarm of drones dispersed over a wide area could easily provide the excess signals to serve as a screen. A longer mission might call

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likely to work. To return to our firefly analogy, we need to think less about making ourselves glow less to blend in with the dark of the night and more time trying to make the night less dark so that it blends in with us.

Framing the problem in these terms opens up a host of possible solutions, many of which are far less expensive to implement, some of which could even be implemented today with off-the-shelf technology from Walmart. I leave it to the reader to think of more, but here are a few options to start the thinking.

Put Out a Lot More Fireflies

A ship in the open ocean or a Marine firebase trying to blend in on an atoll stand out because there are no other emitters anywhere near them, making them easy to pick out against the background. But if U.S. forces, operating in a contested environment, deployed hundreds (if not thousands) of decoy emission sources that saturated the battlefield with EM emissions that were indistinguishable from actual units, it could greatly complicate adversary targeting.

A robust, realtime decoy plan may not be perfect, but employing it will have some complementary benefits. It will make it harder for the enemy to locate us, forcing them to divert resources from other tasks to this one. Even if they do eventually locate us, by then it may

for cheap but reusable drones, whereas a snap or popup mission may be accomplished with even cheaper, disposable drones (perhaps 3D printed). One could even envision a Marine Corps in which we stood up units for this very purpose (a Screening Company as part of a Low-Altitude Air Defense battalion for example) or updated our doctrine or command relationships in which we defined defense as a continuum: from signature management through decoys to point defense (another LAAD battalion mission). An even more clever solution might involve those drones establishing a wide-area mesh network in which they act as retransmitters; their density and dispersion could lower our power requirements to communicate while making it impossible for the enemy to destroy them all.

Make the Oceans Noisy

The Hunt for Red October has a memorable scene in which a Soviet Typhoon class submarine gives off an acoustic signature that a U.S. attack submarine's targeting computer interprets as "whales humping." Though fictional, this example highlights the reliance of undersea warfare on very sensitive acoustic measurements. The Navy has invested huge amounts of money ensuring the United States has the quietest submarines in the world. But does this matter?

Instead of making subs quiet, what if we made the ocean noisier, making it more difficult to hear the sub over the background noise? It is hard to understand someone talking over a loud noise, and this applies to submarines as well. Though less applicable to the open ocean, this may be a viable option for localized operations in a contested littoral area.

If We Don't, They Will

A frequently repeated maxim of war is “the enemy gets a vote.” Possibly the only thing more frequent than people saying it is institutions ignoring it. The forces that turn individual wisdom into collective stupidity are a fundamental part of military organizations. But they are even more powerful when there exists a large capability gap between adversaries, an inflection point in the balance of power, or disruptive technology.

To a much greater degree than they will usually admit, long-dominant powers have institutionalized their way of fighting and thinking. This leads to institutional inertia that makes it difficult for them to view problems in a new way. Upstart or revisionist adversaries do not have that problem. They want to change things and have no vested interest in the status quo. They, therefore, focus on weak points that are susceptible to pressure and rarely challenge a status quo power head-on.

The *Kriegsmarine* realized it could never achieve battleship superiority over the Royal Navy and thus focused on submarine warfare, wreaking havoc with British naval doctrine. The British found this so disruptive that they attempted to have submarines declared illegal to preserve their surface superiority. Similarly, an upstart today unable to deploy subs as quiet as ours may decide making the ocean off their coast noisy gives a better return on investment than trying to match our quietness. They will have gained parity with us for far less cost. And if they can hide their subs for less, why can't we? Why should we spend billions making quiet subs when we can spend millions making the oceans noisy, achieving the same thing?



In addition to making submarines quieter, resources are required “to make the ocean noisier” as a means of camouflage. (Photo by Petty Officer 1st Class Jason Swink.)

Everything Old Is New Again

If the ideas presented above seem revolutionary, they should not. Decoys are not a new idea. Flares are deployed by aircraft to give a heat seeking missile something else to aim for. Chaff, an even older idea, was developed as a very simple way to confuse enemy radar. Going back further, the Romans would light extra campfires at night to make their army seem larger than it was (or

mask the fact that part of it had peeled off from the main force to surprise the enemy).

Examples can be found in modern times as well: the Marine Corps operated EA-6B Prowlers in three VMAQ squadrons for over three decades until the final stand down of VMAQ-2 in 2019. The aircraft was an electronic warfare platform which could, amongst other things, jam enemy radar by put-



Use of decoys like the Miniature Air-Launched Decoy (MALD) ADM 160X is nothing new. (Photo by Airman 1st Class Celeste Zuniga.)

ting out an overwhelming signal that made it difficult to distinguish actual aircraft above the background noise (the EM version of making the ocean too noisy for sonar to be useful).

As we refocus our attention on great power competition, we will need to re-discover the ideas of military deception. Simply trying to not be seen is an amateur's tactic; professionals will look at the full spectrum of options on how they can prevent an enemy from identifying them. As they do so, they will see that this opens up a range of options whose outcome is actually a key part of maneuver warfare: creating confusion in the mind of the enemy.

Part II of this article will expand upon the idea that the tenets of maneuver warfare dictate that we should focus not on keeping the enemy unaware of our options but on forcing them to prepare for multiple friendly COAs. Being forced to do so will prevent them from preparing for any single COA—weak-

ening their response—as well as keeping them guessing to what our actual COA is, thus delaying their response to it.

Conclusion

The ideas presented above on how units can conceal themselves are an effort to expand the thinking in the Marine Corps about what it means for the enemy to not know where you are. There is more to it than they just do not see you. Maybe they do see you, but do not realize they are looking at you. Or maybe they see hundreds of copies of you, but do not know which the real one is and become paralyzed by that indecision. This should be a standard part of our operational planning in the days to come.

It is also an effort to reframe the thinking on what technologies we should be investing in to win the hider/finder battle. We have a tendency to choose the expensive and technologically sophisticated solution at the ex-

pense of the simple and workable. This is a legacy of our nation's overwhelming technological and economic superiority, which allowed us the luxury of such massive spending that we did not have to consider our return on investment. We no longer enjoy this advantage over peer adversaries and need to reorient our decision making to focus on the science and technology investments that will give us an actual and affordable advantage.

Notes

1. Like "school" of fish or "pride" of lions, "sparkle" is the collective noun for fireflies.



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