

Out of Time: The Gap in Homeland Air Defense

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Why Should We Care about Homeland Air Defense?

Until very recently, Air Defense has been relegated within the Army, except for a few niche mission spaces. This is my humble opinion based on observations over the last twenty-five years as an Air Defender. However, that is changing. The entire tone that the Department and the Service use to talk about Air Defense is changing.

Fires are the primary consideration in the most recent publication of Training and Doctrine Command's assessment of the Operating Environment for Large Scale Combat Operations in the 2024-2034 timeframe. The foreword states that "Fires will be the center of gravity." I concede that this includes Offensive Fires, but some sections point to the need for Defensive Fires (ADA), particularly the need for Homeland Defense Fires. The following four statements are pulled directly from the July 2024 TRADOC publication, titled The Operational Environment 2024-2034 Large-Scale Combat Operations:

LSCO will feature Homeland Defense requirements as adversaries will have conventional, hybrid, and irregular capabilities to conduct operations against the Homeland.

These include threats to the Homeland [such as] long-range cruise missiles

At the onset of LSCO, adversaries will probably shift from nonattributable cyber and information operations toward more destructive, physical effects. Adversaries are likely to escalate their actions using ultra-long-range systems with conventional payloads

Fires have become more lethal and practical with new systems and technology expanding their range and improving precision. GPS has improved the accuracy of munitions and firing points. Battlefield sensing, long-range fires, and position, navigation, and timing capabilities have enabled faster strike capability with more accuracy

The potential for a Homeland Defense requirement against long-range conventional payload attacks from adversaries is significant. The assessment suggests that as Large-Scale Combat Operations escalate, our adversaries will have the capacity and "are likely to" strike with their conventional long-range offensive Fires. I offer for your consideration that the changing character of modern warfare is that we might see conventional air attacks from our peer adversaries on our Homeland during the next war. That is why we should all care about the gap in Homeland Air Defense.

What GAP?

The Department of Defense and our elected officials have been discussing and admiring this problem for nearly a decade. A recent July 2024 Center for Strategic and International Studies (CSIS) Panel on Air and Missile Defense in the High North provides valuable insight into where we currently stand. I've selected some key comments from the discussion panel for your consideration:

Senator Sullivan (R-AK), House Armed Services Committee

You know, the incident we had with the Chinese spy balloon that happened last year, we have definite vulnerabilities in terms of over-the-site radar capabilities but, really importantly, in terms of cruise missiles that the NDAA tries to address, so many of these high-tech. These smaller businesses are focused on national security and defense. It's a great opportunity for us where we have some of our best minds to work in this space and some great innovative companies. You may have heard that Lockheed Martin was just awarded a big \$17 billion contract for the next generation of interceptors to defend the United States from intercontinental ballistic attacks. But we also have these smaller, very nimble companies being developed. I think they are learning a lot from what's happening in Israel and what's happening in Ukraine, and it's going to be a very active space for our military and missile defense. It will involve a lot of the learning we're seeing from these conflicts around the world.

Dr. Peppi DeBiaso, Senior Associate of the CSIS Missile Defense Project.

Cruise missile defense of the Homeland, cruise missile defense of North America. I mean, we took sort of a 20-, 25-year holiday, right, in the post-Cold War period, right, in terms of the concerns we had with some kind of significant powers like Russia and China. I mean, up until 2016, 2017 – and this wasn't even much of a focus within the Pentagon.

You can go back six-plus years. I would argue that you should look at all the critical national security and defense strategy documents. The policy on the importance of some kind of homeland CMD against this new type of threat we've been discussing is well-established and agreed to across both Republican and Democratic administrations. Yet, there's been close to zero investment over the past six years.

Yeah, very little bit. However, the big developments over the past three or four years should be related to sensors and domain awareness. Everybody agreed, right? This is—we can all agree on this. We don't really agree yet on shooters for Homeland, CMD, how many, what type, are they kinetic, are they non-kinetic? We'll let the Air Force figure that out, which it probably won't.

Dr. Tom Karako, Senior Fellow CSIS, Director, Missile Defense Project

That is the nonnuclear strategic attack. We talked about this a lot during the CSIS missile defense project. And I want to – I recall that was, I think it was, nine years ago this spring, we had the Vice Chairman Admiral Winnefeld in this room talking about that, in his view, it was the cruise missile threat to the Homeland that was overtaking the importance of the threat from regional ballistic missiles. And that was the Obama administration when regional ballistic missile defense was the thing. That was in 2015 that the vice chairman said that. It doesn't seem like it's sunk in yet.

Gen (Ret) Charles Jacoby, former USNORTHCOM and NORAD Commander

Look at what Russia is doing and what they are building. They are refurbishing all their long-range strategic bombers. They are developing cruise missiles that can be launched from distances barely out of Russian air space.

I mean, in the big picture, every NORAD/NORTHCOM commander since my day has been making the case that the Homeland is not a sanctuary anymore and recognizing the fact that the Homeland can be held at risk by other things besides massive nuclear exchanges with Russia.

So one of the things that's frustrating is this doesn't require a bunch of research that takes a decade, like, you know, trying to figure out how to have a fusion reactor or a quantum computer that can add one plus one faster and get two. This stuff is out there. We just tested a bunch of it. And, well, we're testing it in Ukraine, and we're testing it right now in the Middle East. (Laughs.) And it works. But it's not focused, and it's not here.

Based on the comments from this CSIS forum, we can conclude that Homeland is vulnerable to adversary cruise missile strikes and that we have not invested sufficient resources to mitigate this threat. Further analysis suggests that public opinion would most likely not support the current strategy of Mutually Assured Destruction and nuclear retaliation. This would, of course, depend on the target, but if it is a valid military objective, I do not believe the American people or the international community would support a nuclear response.

So, what are our options?

In the recent history of U.S. Army Air Defense, many significant advancements have happened in labs and test ranges. However, we don't currently have a suitable System of Record for Cruise Missile Defense beyond the Patriot missile system. The Patriot system is an exceptional system in high demand worldwide, with over four decades of proven success. However, it has several significant drawbacks. It is not quick or easy to move; it is one of the more expensive systems to operate, and there are limited quantities of both the platform and the effectors. I don't believe it is realistic to plan for an option where we get Patriot weapon systems defending the Homeland. Those systems will remain in active war zones, defending the forward team like today.

I am excited about the innovation within the Air Defense branch. I believe that we will learn and produce amazing things from what we are gleaning from the air battles in both Ukraine and Israel. However, I am concerned about the timeframe for these advancements. Senior leaders across the Department of Defense have acknowledged and called for changes to the acquisition process to address systemic inefficiencies. With that in mind, I recommend pursuing an interim Air Defense solution achievable today by procuring a system that is already proven effective against this specific threat.

The NASAMS Option

The National Advanced Surface to Air Missile System is a battle-proven cruise missile defeat weapon system that is currently being used by thirteen countries (Kongsberg Defense & Aerospace). There are three key reasons why this weapon system is the solution we must consider now. The primary reason is that it has successfully defeated our acute threat's munitions. Russia has been attacking Ukraine with cruise missiles for several years now. The NASAMS system has defeated those incoming missiles

(Reuters,2022). The next key reason is that the Norwegian manufacturing line, where NASAMS is made, is already in place and producing (Kongsberg Defense & Aerospace). Or, more simply, we can get in line and purchase the systems today. Lastly, the U.S. Army National Guard has experience in training and operating this system. The Army National Guard has used this system to support the NCR-IADS for many years. However, this is a non-system of record. A precedent has already been established for U.S. military operations, and the existing expertise in the National Guard can be leveraged.

The NASAMS solution could provide a credible defense as an interim capability while the Army modernizes and brings the next-generation air defense systems online.

Ok, but why should the Army or even DOD do this?

First and foremost, it is what the American people expect. What other organization is trained, equipped, and organized to defend against incoming cruise missiles from hostile nation-states? This is not a task for local law enforcement or the department

of Homeland Security. From FM 3-01, U.S. Army Air and Missile Defense Operations, “Air and missile defense are the direct defensive actions to destroy, nullify, or reduce the effectiveness of hostile air and ballistic missile threats against friendly forces and assets.” The Department of Defense and the Army, specifically, are tasked with this responsibility. We must accept that the friendly forces and assets we need to defend are in the Homeland now too.

Conclusion

The threshold between non-attributable/non-kinetic actions and nuclear strikes is extensive. Our peer adversaries will transition to conventional warfare as escalation continues. For decades, we have conducted traditional missile cruise strikes on military targets and key personnel with precision around the world. Russia and China are capable of doing the same. We must begin defending our military installations in the Homeland now. The most suitable option for starting that process is the NASAMS weapon system.

Authors Note: CW4 Joshua Scott Bowen is a career Army Air Defender with 26 years of service. CW4 Bowen spent the majority of that time working on Operation Noble Eagle. He is an Air Defense Coordination Officer, providing Army Air Defense subject matter expertise to the NORAD and NORTHCOM Area Air Defense Commanders. This paper was created for Professional Military academic graduation requirements; the views, opinions, and analysis expressed do not represent the position of the U.S. Army. Specific guidance was provided to create a readable, enjoyable, and persuasive article.

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