

Defense of Guam – Command and Control (C2)

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Abstract

The Department of Defense's (DOD) C2 organization and structure in Guam today is insufficient to lead U.S. forces and allies in a high-end conflict with the People's Republic of China (PRC). This notion presumes a 2027 period when the United States government anticipates that the PRC will have the forces and capabilities necessary to take Taiwan by force. To remedy this issue, the DOD must review and define the military utility of Guam's role commensurate with its command-and-control abilities and quickly identify a suitable command-and-control organization that can effectively lead the U.S. and its allies and partners to prepare, fight, and win against a near-peer adversary. The DOD requires systems in Guam that account for the new and emerging warfighting capabilities, technologies, and concepts (i.e., Guam Integrated Air and Missile Defense [IAMD] System, Joint Integrated Fires Network [JIFN], Joint Battle Management Center, Multi-Domain Task Force, Agile Combat Employment, etc.) planned for deployment to Guam and its adjoining region. This capstone project examines the issues and recommends a doctrinal C2 solution.

Keywords: C2, Guam, Department of Defense, Defense, Joint Task Force, Strengths, Weaknesses, Opportunities, and Threats (SWOT)



Thesis Statement

The Department of Defense’s (DOD) current C2 organization and structure in Guam is insufficient to lead U.S. forces and allies in a high-end conflict with the People’s Republic of China (PRC). This notion presumes a 2027 period when the United States government anticipates the PRC having the forces and capabilities to take Taiwan by force. To remedy this issue, the DOD must review and define the military utility of Guam’s role commensurate with its command-and-control abilities and quickly identify a suitable command-and-control organization that can effectively lead the U.S. and its allies and partners to prepare, fight, and win against a near-peer adversary. The DOD requires systems in Guam that account for the new and emerging warfighting capabilities, technologies, and concepts (i.e., Guam Integrated Air and Missile Defense [IAMD] System, Joint Integrated Fires Network [JIFN], Joint Battle Management Center, Multi-Domain Task Force, Agile Combat Employment, etc.) are deployed to Guam and its adjoining region.

Problem Statement

In September 2022, a United States Indo-Pacific Command (USINDOPACOM) staff member proposed the following question as a potential capstone topic for research, *“What functions must be performed in the Guam Defense System Joint Battle Management Center (JBMC) for the Guam IAMD System to successfully defend against near-peer attacks? At what level should these functions be delegated?”*

The initial understanding of this problem set sought to research and recommend functional positions and seats inside a command center. Instead, research found that the question should focus on a deeper topic – *“What should Guam’s military C2 structure look like going forward in the challenging months and years to come?”* This revised research question expands



beyond the scope of C2 of integrated air and missile defense (IAMD) in Guam and focuses on the magnitude of other posture initiatives and activities happening on Guam today and planned for the foreseeable future. In fact, over the next 7 years, the DOD will invest well over \$10 billion in posture initiatives on Guam alone. The research findings conclude that Guam's current military C2 structure, the 'Joint Region Marianas' commonly referred to as 'JRM' could be challenged going forward to manage the multitude of Service posture activities and investments from key partners planned for Guam. The assessment is that 'JRM' is not sourced or organized to conduct active warfighting operations beyond its current assigned mission of installation management and logistics support.

JRM also carries out additional responsibilities to include acting as regional senior DOD representative to the territorial Government of Guam, the Commonwealth of the Northern Marianas (CNMI), and maintaining engagement and coordination with regional allies and partners, which consist primarily of members of the Compact of Free Association (COFA) states (Republic of Palau, the Federated States of Micronesia [FSM], and the Republic of the Marshall Islands [RMI]). Also, USINDOPACOM requirements for Guam revolve not only on a new IAMD architecture but also the requirement for a new C2 center in Guam, but for what? The initial research deduced that in the initial stages of planning for the new IAMD command center that the USINDOPACOM staff did not fully know their commander's scope and intent for the command center. This command center is referred to as the Joint Battle Management Center (JBMC), hence the topic of the capstone project. Bottom-line up front, improvements may be required to enhance the C2 in Guam, as it is perhaps insufficient and under-powered to handle the regional and national level politics, challenges, etc., without modification and improvements (e.g., staffing, leadership, and structure).



Improvements in the overall C2 in Guam is required both in steady state and in a potential crisis. JRM is not structured to adequately handle the regional and national level politics, the management of over \$10 billion in investments, and the capability to view all requirements on Guam and the region even during steady state operations today. In a potential conflict, JRM would be overwhelmed and provide minimal utility in an attack-of-Taiwan scenario. A change in the existing C2 structure is required immediately to be operational by 2027.

Guam, U.S.A. – The last 125 years

Guam, U.S.A. – A Short Historical Perspective

The United States relationship with Guam begins at the conclusion of the Spanish American War in 1898 where the United States acquired Guam for \$20 million as part of negotiations to end the conflict. Prior to this, Spain colonized Guam for more than 400 years, dating back to its discovery by Spanish explorer Ferdinand Magellan in 1521. In the years leading to the beginning of World War II, the Department of the Navy administered Guam with the appointment of Captain Richard Phillips Leary as Guam's first naval governor. Just short of the eve of the U.S. entry into WWII, Guam at the time found itself at the center of a great power struggle between the U.S. and Japan. "Guam was trapped between the United States and Japan in a struggle for supremacy in the Pacific. America felt she had an obligation to keep Asia open to international trade. Japan was convinced she had the obligation to lead, or take, if necessary, Asia out of Western domination" (Givens, 2000, p. 332).

In a coordinated theater-wide operation, Japanese Imperial Forces attacked Guam beginning at 0830 Chamorro Standard Time, 8 December 1941, the same exact day it attacked the U.S. Pacific Fleet at Naval Base Pearl Harbor, Hawaii at 1230 Hawaii Standard Time, 7



December 1941. Forces available to defend Guam against the Japanese invasion consisted of 153 US Marines, 274 Naval personnel (including 5 female nurses), and about 247 Chamorros in the Insular Guard and Naval Guard. Failing to thwart the invasion force of more than 5,000 Japanese Imperial invaders, Guam succumbed and would remain occupied for the next 36 months until 21 July 1944 when U.S. forces began its operations to take back Guam (Givens, 2000). The tremendous cost for liberating Guam resulted in U.S. forces suffering more than 1,744 killed, 5,970 wounded, and Japan suffering more than 18,000 killed, wounded, or captured (Sheirich, 1994). Once the island was secured, Admiral Chester W. Nimitz, Commander in Chief, U.S. Pacific Fleet, and Commander in Chief, Pacific Ocean Areas, directed that his headquarters relocate to Guam from Hawaii where it would remain through the end of the war in the Pacific. Nimitz then established airfields on Guam and nearby on the island of Tinian to base and launch B-29 Stratofortress bombers to bomb the Japanese homelands (Sheirich, 1994).

Post WWII, shortly after the outbreak of hostilities on the Korean peninsula, as a precaution, the U.S. Strategic Air Command (SAC) deployed to Guam a 9th Bomb Wing bomber task force armed with atomic weapons (Koch, 1999). During the height of the Vietnam War in 1972, Guam hosted three quarters of the 200 B-52s President Lyndon B. Johnson committed to the war effort (Joseph, 1972). In comparison, a quick search on Google Maps for Andersen Air Force Base will typically show 4x B-1s or 4x B-52s parked at any one time on the apron depending on Google's map updates. Guam also maintains the largest cache of munitions in the Indo-Pacific region and the largest fuel stores anywhere in the world for the Air Force (Perry, 2003). "Lots of things change in this world -- weather, politics, economics -- but geography doesn't change," said Adm. Walter Doran, commander of the Pacific Fleet. "Guam is where it is, and it will always be important to the security of the United States" (Perry, 2003, p. A5).



After the fall of the Soviet Union, Guam's importance dwindled but then became an important discussion point for the relocation of forces from Japan. The Defense Policy Review Initiative (DPRI) in the early 2000s began as a bilateral effort between the United States and Japan to relocate U.S. forces from Okinawa with hopes to reduce the political friction between the two allied governments with the Okinawan prefecture government and population. DPRI negotiations included the relocation of 5,000 U.S. Marines and up to 1,500 family members. On 1 October 2020, the U.S. Marine Corps activated its newest installation in more than 70 years to complete construction and operationalize Camp Blaz, Guam (Oltman, 2021).

Lance Gatling, an aerospace and weapons analyst, told the South China Morning Post that the strategic location of Guam makes it a target of choice for regional rivals of the United States in the event of an outbreak of hostilities. "Guam has long been a key staging point for the U.S., in both naval and air operations, and it was from there that long-range bombers operated against targets during the Vietnam War" (Ozimek, 2020, p. A6), Gatling told the publication. "It is going to become even more important as the U.S. Marines move more of their personnel from Okinawa to Guam" (Ozimek, 2020, p. A6).

Since 2013, the U.S. has sustained a Terminal High-Altitude Area Defense (THAAD) missile defense system presence on Guam in response to North Korea's intermediate-range ballistic missile threat. Additionally, mobile, multi-mission capable Aegis BMD ships have deployed to protect Guam limiting their application in other priority missions elsewhere in the region. "Those ships can't really do anything else except steam in a circle ... and wait. You must be in a tiny little box to have a chance at intercepting that incoming missile," according to Admiral John Richardson, Chief of Naval Operations (Axe, 2020, Aerospace & Defense, Editor's section, para. 14). While THAAD and an Aegis platform would likely be able to



intercept a North Korean missile, THAAD has zero chance for a hard kill against a PRC hypersonic missile. Additionally, the PRC continues to invest and develop increasingly effective missiles and expand their anti-access/area denial (A2AD) capability. However, given the PRC's capabilities, missile defenses in Guam require upgrades to counter more complex missile threats now and in the future (Abrams, 2022).

Threats to Guam

People's Republic of China (PRC)

After 9/11, while the U.S. prioritized and became entrenched in the global war on terror in both Iraq and Afghanistan, the PRC rapidly expanded power across the diplomatic, information, military, economic (DIME) spectrum and invested heavily in modernizing its military. Today, China is clearly recognized not just as a peer-competitor, but a main threat to the interest and position of the U.S. across all national instruments of power and all domains militarily (Thayer, 2019).

Numerous U.S. government officials and unclassified national strategic documents highlight the criticality of defending Guam from an ever-expanding Chinese air and missile threat (U.S. Department of Defense, 2022). In the 2022 National Defense Strategy, the DOD not only identifies the PRC as the "pacing threat," but also as the most consequential and systematic challenge to U.S. national security and the free and open international system. In 2022, Secretary of Defense Lloyd J. Austin, III identified the People's Republic of China (PRC) as the "pacing challenge" (U.S. Department of Defense, 2022). The current commander for U.S. Indo-Pacific Command, Admiral John Aquilino, also echoed this sentiment in his annual testimony before Congress (Senate Armed Services Committee Transcript, 2022).



Over the last 10 years, the PRC has used the People's Liberation Army (PLA) to assert itself and conduct aggressive acts in the western Indo-Pacific to assert its position relative to the U.S. and its regional neighbors. Over the last decade, the PRC has used the PLA to expand its control in the Indo-Pacific, and it seeks to upend the rules-based international order to expand its assertiveness in the region. Examples include the militarization of small islands (i.e., Spratley islands), the harassing of fishing boats, and unsafe intercepts to intimidate those who do not recognize the PRC's excessive maritime claims. As a regional power having achieved its 2020 goals, the PLA is now pursuing additional modernization with an objective to be ready by the year 2027. The PLA believes it must be ready to support national objectives should a decision be made to reunify with Taiwan by force (Annual, 2022).

In September 2021, China published a video of the People's Liberation Army Air Force (PLAAF) forces attacking what is assumed to be Andersen Air Force Base (AAFB), Guam to not only deter but to intimidate the U.S. This demonstration can be interpreted as an acknowledgement that the PRC understands Guam's military role and value to U.S. national security in the region (China/United States, 2020). The PRC is known to possess a large stockpile of ballistic missiles, hypersonic missiles, and cruise missiles capable of ranging and threatening Guam. The PRC is not a threat to Guam from one direction but possess the ability to target Guam from 360-degree axes to further complicate the defense of Guam given the PRC's air and maritime abilities and outreach efforts toward Pacific Island nations in the USINDOPACOM area of responsibility.

The PLA Navy is developing proficiency in conducting maritime operations beyond the first island chain and into the second island chain regions. It was reported on 30 December 2022 that the PRC even sailed a prized aircraft carrier task force just a few hundred miles near Guam,



within easy combat range for PRC carrier-based aircraft (China, 2023). The PLA Navy is routinizing its maritime operations beyond the first island chain and starting to operate more consistently in the second island chain. Furthermore, the PRC seems intent on extending its reach into the second and third island chains. They recently demonstrated this intent by concluding a security agreement with the Solomon Islands in May 2022, which clearly indicates China's intent to develop supporting infrastructure in the second island chain that benefits their objectives in the region.

The PRC is capable of ranging Guam using a variety of land-based surface-to-surface ballistic missiles, air launched ballistic missiles from H-6K long-range heavy bombers, air launched cruise missiles, and the employment of hypersonic maneuvering warheads. These capabilities are designed with one purpose in mind, to conduct extreme maneuvers to circumvent U.S. missile defenses. Included in China's missile order of battle is the DF-26 intermediate range ballistic missile, commonly referred to in news media as the 'Guam killer.' Because of China's ability to deploy long range bombers, hypersonic capabilities, and blue-water capable submarines, the PRC can attack and isolate Guam with ease.

Democratic People's Republic of Korea (DPRK)

Although this capstone is focused on the PRC, it is worth mentioning the North Korean threat. Over the past decade, the North Koreans have improved and demonstrated their ballistic missile program and even threatened striking Guam with intermediate-range ballistic missiles. Additionally, their advancements and developments in nuclear weapons technology makes the situation in the region even more dangerous for not only the U.S. homeland, but our allies and partners as well. Just over the last year, North Korean missile launches hit historical highs. Moreover, in March 2023, Kim Jong Un launched his most ambitious intercontinental-ballistic



missile test as a message reminder to the U.S.-ROK (Republic of Korea) alliance, as they conducted large military readiness exercises in South Korea (Sang-Hun, 2023).

There are no signs Kim Jong Un will ever dispense with his ballistic missile and nuclear weapons capability anytime soon. In March 2023, Kim Jong Un showcased in the media what purportedly are samples of his nuclear weapons stockpile likely meant as a strategic warning targeted at the U.S. and ROK alliance (Kim, 2023).

Russian Federation

Because of Russia's recent actions in Ukraine, it is often thought that Russia is primarily a European concern and threat. On the contrary, Russia is also a major power and threat in the Indo-Pacific with a few thousand miles of Russian borders touching the Pacific Ocean. In Russia's Eastern Military District, military land, air, and sea bases are spread throughout the eastern regions of the country serving as constant reminders to its neighbors, especially the ROK, Japan, and the U.S. that Russia has interests in the Indo-Pacific region as well. Unforgotten from the Cold War days are the occasional long-range bombers that will typically fly near and circumvent Guam.

Defending Guam

By default, as the U.S. westernmost territory, Guam's geographical location places it center-stage in representing the U.S. primarily through its military presence in the Indo-Pacific Region. Guam is approximately 2,500 nautical miles, or about 5 days sail to mainland China and close to the contested domains of the South China Sea, the First Island Chain, and U.S. major treaty allies to include Australia, Japan, the Republic of Korea, and the Philippines. Put differently, Guam is both strategically important and vulnerable simultaneously. Given the long-range strike capabilities of the PRC and North Korea, anecdotally, we often hear that Guam is no



longer a sanctuary for U.S. forces in the Pacific. Guam and the regional island nations in the 2nd island chain are key terrain in our National Strategy. According to the current U.S. Army Pacific Command (USARPAC) Commander, General Flynn, “The geo-strategic weight of the century resides in this theater” (Flynn, 2022, Video Interview, 16:09).

On a map, from Hawaii and the U.S. west coast, all routes to Asia track through Guam. Admiral Nimitz in WWII appreciated and leveraged this fact as part of his strategic thrust toward Japan through the middle Pacific. Guam’s geographical location was clearly key military terrain that offered advantages to any nation with Pacific interests. Recognizing Guam’s advantages, Admiral Nimitz led U.S. forces to ‘fight for Guam’ to ‘fight from Guam’ as part of his overall strategy to advance against the Japanese homeland. On 15 August 1944, Admiral Nimitz directed that his headquarters be relocated forward in Guam likely to enhance his understanding of the battlefield and better C2 his assigned forces, as they advanced further toward Japan (Sheirich, 1994).

Today, the same sentiments are echoed in Congressional testimony by current and recent Commanders of the U.S. Indo-Pacific Command. Former INDOPACOM Commander Admiral (retired) Phil Davidson testified in 2021 that “America's day begins in Guam, and it is not only a location we must fight from, but one we must also fight for given the threats we face in the near term and the foreseeable future” (Davidson, 2021, p. 5).

The PRC’s publicized intent to use its military means to defeat adversaries (capacity, capability, and intent to employ in a synchronized combined fashion) necessitates transforming U.S. military operations on Guam from the usual strategic logistics, basing and communications hub and into *a more capable operational warfighting command capable of operating from Guam* in a contested environment.



The U.S. withdrawal from the Intermediate Nuclear Forces (INF) Treaty in 2018 in conjunction with new technological developments offers the U.S. additional opportunities to enhance its ability to control larger land and sea areas using long-range fires previously prohibited by the INF Treaty (Sherman, 2020). Certainly, an emerging advantage for the U.S. in a future crisis with the PRC and Guam given its location presents an ideal location to employ such capabilities. Placing offensive fires in Guam and neighboring islands might serve to deter PRC aggression and flip the A2AD problem on them. Furthermore, any offensive weapons that might target the PRC would most certainly force the PRC to invest heavily in the defense of their homelands.

The INF treaty withdrawal grants the U.S. opportunities to obtain capabilities that aid stabilizing an unstable environment in the Indo-Pacific region where China gained an advantage during the treaty's enactment. Subsequently, Admiral Davidson alludes to this requirement calling for a wider base of long-range precision fires to include medium-range and intermediate-range capabilities for the U.S. to fix the military fires gap and restore militarily the regional balance of power with an assertive China. Such an advantage would help the U.S. and its allies expose China to threat of deterrence by punishment and impose costs on the PRC in the event it decides to escalate from competition to crisis with the United States.

Services are adapting their operational concepts to account for the increased threat of the PRC. The U.S. Marine Corps Marine Littoral Regiment (MLR) and the U.S. Army's Multi-Domain Task Force (MDTF) are designed as mobile forces that can operate rotationally in austere locations capable of integrating land-based, long-range anti-ship and land-attack weapon systems for the purpose of creating an A2/AD challenge for the PRC. Simply put, MLRs and MDTFs are devised to target PRC ships. In a recent online interview with USC students, U.S.



Army Pacific Commander, General Charles A. Flynn, recalled a moment during a joint exercise while he was supporting then U.S. Pacific Fleet Commander, Admiral Swift, with Army land forces. In the exercise, Army forces employed a multi-domain task force-like capability near the Luzon Straits to which land forces demonstrated operational exercises using long-range fires to conduct sea control and sea denial. Afterward, Admiral Swift soon realized this important lesson and the capability it allows; the ability for a Joint Forces Maritime Component Commander (JFMCC) to employ his/her limited surface action groups elsewhere in the theater due to land forces long-range fires capabilities. This application highlights how an economy of force advantage can be attained due to flexible use of land forces to provide more options for commanders to mass maritime combat power (i.e., destroyers, cruisers, aircraft carriers) against other higher priority missions elsewhere in the theater (Flynn, 2022). Regardless of weapons systems employed, together they should be integrated to produce a more robust targeting solution and enhance the U.S. kill-chain by incorporating more sensors feeding and centralizing various data. Furthermore, Aegis weapons technology is shared by key allies such as Japan, ROK, and Australia.

Additionally, developing an Aegis solution would likely lead itself into a more complex, integrated IAMD solution that links the U.S., Australia, ROK, and Japan IAMD capabilities that could help target PRC missiles. A new IAMD system proposed to extend THAAD capabilities in Guam using proven weapons systems such as Aegis could play a key role as well in the employment of long-rang fires from Guam or from surrounding neighboring islands using remote-launch and engage-on-remote technologies.



How to Defend Guam.

Soon, the U.S. Indo-Pacific Command (USINDOPACOM) plans to deploy a new IAMD capability in Guam by 2027. Addressing Guam's IAMD requirement, the DOD tasked the Missile Defense Agency (MDA) to develop a joint missile defense architecture comprised of Navy and Army systems to deliver a 360-degree persistent capability to Guam by 2027 (Abrams, 2022). "When you look at the way the threat capacity is manifesting from China in the future. Whether it's ballistic missiles from the land, or whether it's ballistic or cruise missiles from air and maritime platforms, you're going to need a complete clock. A 360-degree coverage to help defend Guam," according to Admiral Phil Davidson (Ozimek, 2020, para. 4).

Along with the deployment of an improved IAMD system that is also capable of employing offensive fires, perhaps it is prudent that the U.S. would lay groundwork to establish an enhanced, *deliberate command and control (C2) structure to enhance Guam's role of* employing not just defensive fires (like IAMD), but also offensive fires from Guam (117th Congress, 2021).

The magnitude of posture activities occurring in Guam over the next few years to include a new IAMD system, makes for a challenging C2 scenario. Just the complex nature and land requirements for the IAMD system requires more coordination and management emphasis. Anecdotally, MDA senior leaders agree that MDA has not tackled anything of this magnitude since GMD when referring to the new Guam IAMD system. Former Program Executive for MDA's Ground Based Mid-Course Defense Program, Lt Gen Phillip Garrant, eluded that the challenge for Guam IAMD is not the technology, but the impacts from its surrounding environment riddled with politics, budget disagreements, acquisition appointments, and the arduous process in identifying a service lead with acquisition authorities. He further explained



that in the past, Guam’s political leaders requested DOD not militarize the island any further, however, the INDOPACOM Commander agrees that “that ship has sailed” in his characterization of Guam and its role in hosting the military in general for many decades (Garrant, 2023).

The Guam IAMD system is forecasted to consist of multi-service capabilities using a mix of sensors, effectors, and C2 systems coordinated within the confines of a new command center in Guam that would serve multiple purposes for not just the Services but also for the combatant commander. The Guam IAMD system includes the new AN/TPY-6 radar granting a 360-degree sensing capability, components of the Aegis combat weapons system, the Army’s Integrated Air and Missile Defense Battle Command System (IBCS), the Lower Tier Air and Missile Defense Sensor (LTAMDS) and Sentinel radars all netted together with MDA’s Command and Control, Battle Management, and Communications (C2BMC) system and is a key factor in the overall development of GDS. However, how USINDOPACOM plans to C2 the multitude of weapons capabilities and warfighting concepts in the region going forward has yet to be determined.

C2 Options

It is important to understand why this capstone project is focused on C2. The DOD defines C2 as "the exercise of authority and direction by a properly designated commander over assigned forces in the accomplishment of the mission" (Department of Defense, 2011, p. xiv). At its most fundamental level, C2 represents how the DOD makes operational decisions. For Guam’s situation the advantages are tremendous with unlimited potential to exercise sea control and sea denial of a designated assigned area of responsibility to deny the adversary access and afford the joint force commander the option to use high-demand-low-density mobile assets like Aegis or THAAD at other priority mission sets or areas as required by the Combatant



Commander. West of the international dateline, the U.S. 7th Fleet keeps 7 Aegis BMD capable ships based in Japan (U.S. Department of the Navy, 2022), and the U.S. Army maintains 2 THAAD batteries in both Guam and ROK (Missile Defense Project, 2023). The suitable C2 (leadership) that can exploit technological advances of precision long-range fires, multidomain concepts, distributive fires, and logistics, along with national policy can all be leveraged to develop a more complete solution to counter the PRC expanding A2AD. It is often said in military professional schoolhouses that the most critical component of the elements of combat power is leadership. Identifying early the appropriate C2 structure and establishing and exercising it stands to provide better value in return for the nation.

Figure 1, sourced from U.S. Army Doctrine Publication 3-0, characterizes the essential elements of combat power. Centered as the focal point within the graphic, ‘C2’ integrates all other elements (Maneuver/Movement, Protection, Sustainment, Fires, Intelligence) to focus combat power at the designated place and time to achieve desired effects (Department of the Army, 2019).

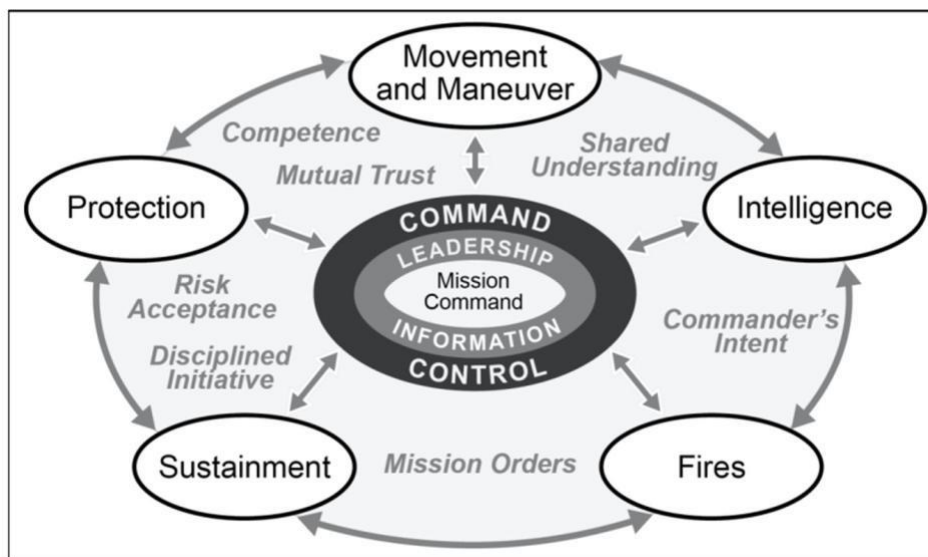


Figure 1 – The Elements of Combat Power (ADP 3-0, 2019)

This capstone reviews three distinct viable C2 structures to command U.S. forces and even allies forward or West of the international dateline in Guam. They are doctrinal example organizations found in common Department of Defense joint and service publications.

C2 from Afar. This option (see Figure 2) notionally assumes missile defense forces in the Indo-Pacific Command area of responsibility are doctrinally commanded by an appointed Theater Joint Force Air Component Commander (TJFACC) and Theater Area Air Defense Commander (TAADC) located in Hawaii. For the purposes of this capstone, the designated engagement authority for IAMD operations on Guam is the TAADC located elsewhere in the theater. He/she is assisted by the designated Deputy Area Air Defense Commander (DAADC) who specializes in the planning, coordination, synchronization, and employment of integrated air missile defense capabilities (lethal and non-lethal) across the Indo-Pacific area of responsibility. It is common practice for the commanding general of the theater Army Air and Missile Defense Command (AAMDC) to serve as both CDR, AAMDC and DAADC. This option requires minimal adjustments at the TAADC level for staffing, equipment, and command authorities. Not included are authorities to conduct attack operations, and it does depend on non-disruptive communications between Guam and the TAADC to execute continuous IAMD operations.



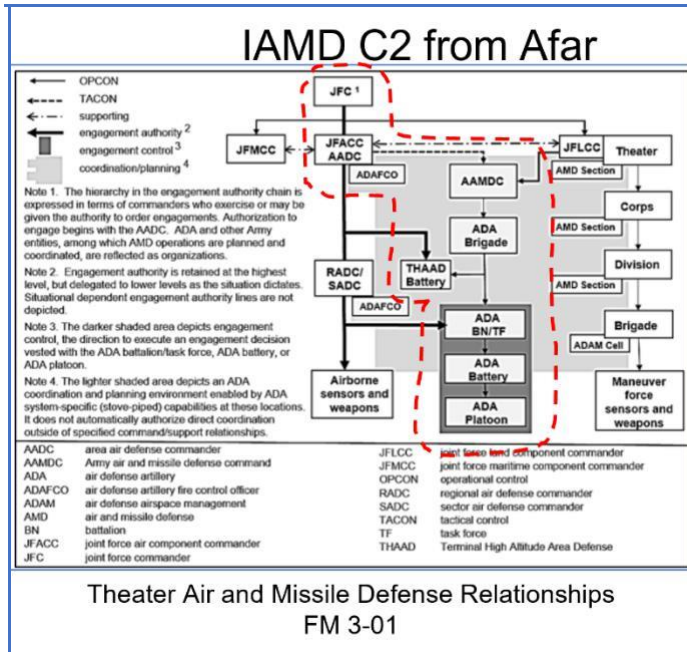


Figure 2 – TAMD Relationships - FM 3-01 (2020, Dec)

Regional Air Defense Commander (RADC) in Guam. This option assumes the RADC is geographically located in Guam (see Figure 3). The RADC is used to account for more complex operations/campaigns being conducted in a large Joint Operations Area (JOA)/theater of operations. It involves the division of the operational area into separate air defense regions, each with a RADC who could be delegated the responsibilities and decision-making authority for defensive counter-air operations within his/her assigned region. This option assumes a notional regional air defense commander is designated for Guam to C2 complex defensive counter-air operations and other missions as designated from Guam and its assigned areas. The assignment of additional personnel and equipment along with authorities to include the decision to order engagements in his/her assigned area of responsibility is required.

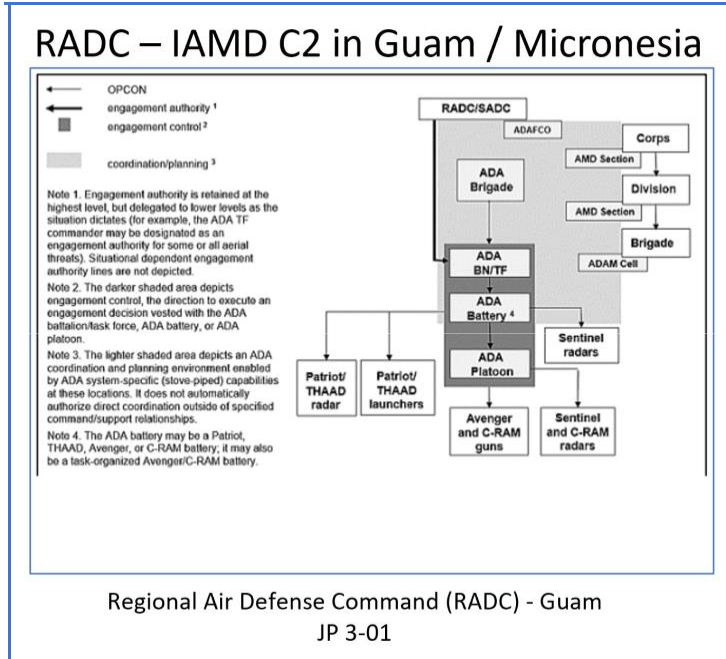


Figure 3 – RADC - Joint Publication JP 3-01, (2018, May)

Joint Task Force (JTF) in Guam. This option (see Figure 4) would theoretically be established in Guam. In general, JTFs are designed for complex strategic environments. JTFs with the correct allocated forces are generally capable of addressing threats across all domains (Department of Defense, 2018). It is presumed in this option that forces allocated include forces capable of employing multi domain fires across all domains within the JTF’s JOA.

Guam C2 Options – SWOT Matrix			
C2 Option	C2 from Afar	RADC (Guam)	JTF-XX
<u>Strengths</u>	<ul style="list-style-type: none"> - Business as usual with no major adjustments required 	<ul style="list-style-type: none"> - Capable of conducting autonomous operations with assigned authorities - Focused, best situated to respond, coordinate, and deconflict regional defensive counterair operations with other airspace users (commercial, military, private) at lowest level - Affords TAADC to focus on JFC priority missions elsewhere 	<ul style="list-style-type: none"> - Leads and supports integrated-deterrence in Guam - Capable of imposing costs on adversary; employ offensive fires (MDTF, MLR, ACE, etc.) across large, sizeable operations area - High return in value per Principles of Joint Operations <ul style="list-style-type: none"> o Unity of command o Economy of force o Simplicity o Perseverance o Security - Maximizes all elements of combat power - Best suited to conduct autonomous operations during contested communications period - Assigned Joint Operational Area - Synchronize/supervise complex multi-Service posture activities in Guam and across assigned JOA - Coordinate JOA active air defense at lowest level (local) - Demonstrates U.S. commitment to Guam, CNMI, Palau, FSM, RMI
<u>Weaknesses</u>	<ul style="list-style-type: none"> - IAMD operations vulnerable if subjected to contested communications environment - Does not take advantage of initiative and concepts designed to counter the near-peer adversary, de-synchronized priorities - Too large of scope; TAADC scope too large to focus on JFC priority missions elsewhere - Time zone difference 	<ul style="list-style-type: none"> - DCA, IAMD operations vulnerable if subjected to contested communications environment - Does not take advantage of initiative and concepts designed to counter the near-peer adversary, de-synchronized priorities - Increases multi-service support from limited resources to staff and equipment - Time zone difference 	<ul style="list-style-type: none"> - Reliant on additional resourcing that is limited - Requires significant additional civilian and military personnel to include a senior military official (i.e., 3-Star or 2-Star admiral or general) - Placing a JTF on Guam would be seen as escalatory by the PRC
<u>Opportunities</u>	None	None	<ul style="list-style-type: none"> - Establish A2/AD environment – stifle PRC movement and maneuverability <ul style="list-style-type: none"> o Employ high-demand, low-density assets to other high priority missions - Reassure treaty allies & partners in the region; enhance partnership and support from U.S. territorial govts, COFA states, & multi-national partners - Support from OSD and JS - Interoperable with allies and partners
<u>Threats</u>	<ul style="list-style-type: none"> - Greatest probability of command-and-control disruption/isolation 	<ul style="list-style-type: none"> - Some probability of command-and-control disruption/isolation 	<ul style="list-style-type: none"> - Inside DF-26 Range - Can be seen as escalatory by the PRC- Likely a target for the PRC in a crisis

Figure 5 – Defense of Guam SWOT Analysis



SWOT Summary

C2 from Afar is the simplest of the options; however, the structure seems inadequate in leading a myriad of DOD competing activities in the Guam region. Furthermore, the pure tyranny of distance with Hawaii leaves Guam highly vulnerable if subjected to a contested communications environment given the adversary's space, cyber, and electronic warfare capabilities.

The institution of a RADC offers improvements in C2. An assigned RADC on Guam is best suited to conduct autonomous DCA operations, closest to the problem set with inherently better situational awareness of the region, and it allows corporate TJFACC/TAADC to focus on higher JFC priorities. On the contrary, like C2 from Afar, it faces the same potential challenges in a contested communications environment, but the benefit with this option is the RADC is granted authorities to continue conducting operations especially when conducting DCA engagements. This option is not ideal for coordinating offensive fires and lastly would strain a budget conscious Service component based on staffing and equipment requirements to resource a RADC.

Given the high ratio of strengths/opportunities vs weaknesses/threats, the JTF option offers the best return on investment while also offering a viable way to operate in a contested environment against a high-end adversary like the PRC. Strengths include ability to lead regional integrated deterrence efforts (a top National Defense Strategy vision). It is highly capable of synchronizing operations to include application of offensive fires to impose cost on any adversary near Guam. A JTF in Guam aligns with key joint operating principles to include unity of effort under one commander. It affords the JFC with the ability to apply minimum essential combat power in the Guam region, thus allocating maximum possible combat power elsewhere



on higher primary efforts, allowing joint operations in the region to be executed with one clear commander with the ability to communicate to allocated forces, and providing clear, uncomplicated plans and concise orders. JTF pulls together all other elements of combat power to plan, coordinate, synchronize, and employ essential combat power at the right place and time to achieve desired effects. JTFs, once given higher commander's intent, method, and end-state along with appropriate staffing, equipment, and authorities, are better able to continue operations despite contested communications environments. JTFs demonstrate commitment and reassure regional allies and partners, much like police patrols and neighborhood police kiosks deter crime through their presence. Weaknesses are relegated to staffing and equipment resourcing to include the appointment of a 3-Star or 2-Star admiral or general to lead and represent the organization and placing a JTF on Guam would be seen as escalatory by the PRC.

JTF opportunities are endless, especially the ability to deter and (if necessary) fight and win in a conflict. This option includes the employment of offensive fires like the new Tomahawk Land Attack Cruise Missile Block V variant capable of an anti-ship role with ranges estimated to be more than 1,000 NM to control the sea, air, and land areas as assigned (see Figure 6). The only downfalls are it would rise even higher on the adversary's High Value Target list given the elements of combat power resident in a robust JTF in Guam.



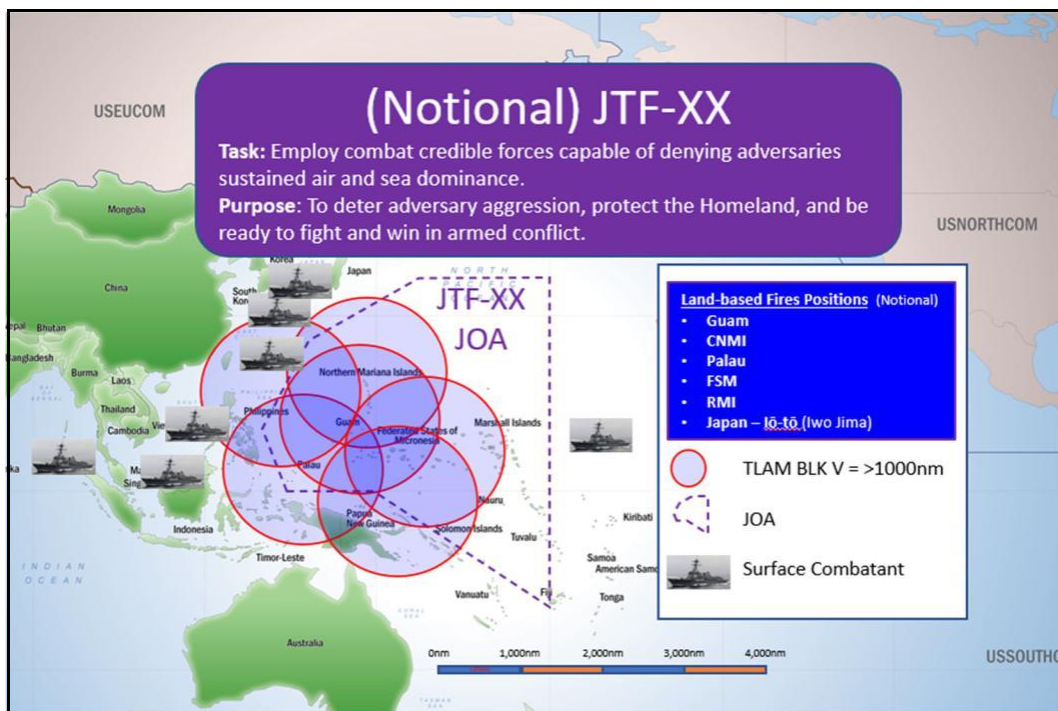


Figure 6 – Notional JTF-XX JOA with Sea Control and Sea Denial.

Note: TLAM BLK V Anti-Ship Capable Cruise Missile

COFA Policy - Sustaining Oceania’s Hearts and Minds in Support of Big ‘M’

In Oceania, to include the COFA states (Palau, FSM, and RMI), there is a ‘tug-of-war’ happening, and it is crucial to U.S. strategy that the nation step up its efforts to be the security partner of choice; the alternative is that the ‘PRC’ will gladly step in and fill the void. Regardless of any of the options selected for C2 of Guam, improving several fronts to enhance U.S. ability to ensure access, basing, and overflight (ABO) in support of national strategy for the Indo-Pacific should be considered.

“As part of the COFAs, the ‘military clause’ gives the United States exclusive rights to maintain defense assets in the territorial lands and waters of these nations. In exchange, these countries receive a variety of funding and services from the U.S. government, including the provision of their security” (Smith, 2022, para. 3). Economic stability is key for these small



island nations, and if it is not guaranteed, then they will have no choice but to rely on other sources to ensure survival.

Given the tyranny of distance, the large open water geography, limited land opportunities in the Guam region, the proximity of the Guam region to the first island chain, the South China Sea, the East China Sea, and U.S. allies and partners in the area, sustaining the hearts and minds of the populations residing on islands the U.S. deems “key military terrain” is critical for U.S. forces’ ability to operate and meet mission objectives. Although Oceania, specifically the Pacific Islands to include the COFA states (Palau, FSM, and RMI), is not routinely mentioned in mainstream media, rest assured this region is ground zero for great power competition between the U.S. and the PRC today. This situation was clearly demonstrated by the PRC-Solomon Islands security agreement and the U.S. reaction to demonstrate commitment to the region. Key issues for the Pacific Islands include illegal, unreported, and unregulated (IUU) fishing, climate change, maritime domain awareness, and lack of infrastructure, all of which leave these island nations vulnerable to PRC exploitation.

Impotent efforts to gain and sustain advocacy and support from our territorial and allied governments (Guam, CNMI, Palau, FSM, RMI) are not beneficial to the cause. For example, failure to secure ABO rights could limit or negate long-range fires effectiveness. This perspective is captured in a statement from the Secretary of the Army, Christine E. Wormuth, at a Center for Strategic and International Studies event on December 1, 2021 when she said, “the Army is ready, when called upon, to be able to put those kinds of capabilities in the region. But it’s really [the State and Defense Departments] that will take the lead in those discussions.” As of May 2022, the Army was still waiting on whether basing agreements had been achieved and agreed to access and train long-range precision fire units in neighboring island nations near



Guam. This effort aligns and nests well in support of integrated deterrence but leans on the diplomatic arms of the U.S. government for leadership and action (Feickert, 2022).

Although benefits of the COFA agreements are realized by the federal government, it leaves the states (Hawaii) and territories (Guam, CNMI) financially disadvantaged due to a 1996 federal law limiting COFA migrants from using public funds. In essence, these states and territories are left to bear the brunt of funding migrant social and economic services. In 2017, Guam reported local government expenditures amounting to \$1.2 billion for the past 13 years covering costs for migrant education, healthcare, and public safety. In 2017 alone, Guam’s government expended \$147M for education and social services, \$38.5M for healthcare and welfare services, and \$35.3M for public safety services with little to no assistance in reimbursements (Government of Guam, 2017). Figure 7 shows the 2018 estimate of COFA migrants from all jurisdictions.

Jurisdiction	Estimate	Margin of Error ¹
Guam	18,432	+/- 3,729
Hawaii	23,236	+/- 3,134
CNMI	2,431	+/- 640
American Samoa	24	(x)

Figure 7 – 2018 Estimate of COFA Migrants, All Jurisdictions.

Conclusion

Based on the SWOT analysis, the recommendation is to activate a JTF headquarters on Guam to be led by a 3-Star military official (2-Star at a minimum) who has authorities to conduct joint military operations and conduct executive level military engagement with territorial and allied and partner governments in the Guam region. The Guam Defense System Joint Battle Management Center (JBMC) for the Guam IAMD System should expand beyond IAMD C2 and



expand its functions to serve as the center of operations for the JTF. The JTF JBMC should be outfitted with the skills and capabilities necessary to monitor, assess, plan, and direct defensive and offensive capabilities and be augmented with joint individual augmentees for subject matter expertise or unique experience not inherently resident in the core unit identified as the JTF or the enabling units contributing to the JTF HQ's joint manning document (JMD). It is recommended that this action take place long before 2027 to allow ample time to resource, stand-up, and train, and ensure continued ABO support in the Pacific Island region, coordinate with the U.S. State Department to grant necessary resources required to COFA impacted states and territories to reduce financial and infrastructure challenges. It is further recommended that the USC Policy School invite the Department of State to the USC LA Campus to discuss enhancing engagements and support for our allied island nations in Oceania to keep winning their hearts and minds and ensure that the U.S. remains the preferred security partner of choice. The DOD should NOT be the agency of choice to enhance our relationship with the Pacific Islands. The DOD would certainly be a primary user of any ABO in the Pacific Islands region, but more U.S. State Department, USAID, U.S. Coast Guard, and U.S. business efforts are needed to help address social, economic, and rising sea issues in the Pacific Island areas, which are critical to the U.S. national strategy. It is also recommended that the U.S. develop a solid and coherent strategy favorable to the Pacific Islands to counter the gross PRC stalking currently taking place. This approach is a highly effective way to compete against the PRC given their coercive and assertive strategy and tactics.



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