

JOURNAL OF ADVANCED MILITARY STUDIES

# JAMS

Vol. 15, No. 1, 2024



JOURNAL OF ADVANCED MILITARY STUDIES

# JAMS

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Published by Marine Corps University Press  
2044 Broadway Street | Quantico, VA 22134

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*Journal of Advanced Military Studies*

(Print) ISSN 2770-2596

(Online) ISSN 2770-260X

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# Marine Corps and Space Force Integration for a More Lethal Joint Task Force to Counter China

Colonel Josh Bringhurst, USMC

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**Abstract:** The objective of this article is to highlight the unique capabilities of the Marine Corps and Space Force and how they can function as part of a Joint Task Force (JTF) operating within U.S. Indo-Pacific Command (USINDOPACOM). More importantly, it aims to discuss the need to establish a Joint force structure and package that minimizes the risk should the United States need to quickly shift from competition to a crisis or, worse, conflict with China. Determining command relationships, allocated resources, and authorities as part of a JTF structure and package will be critical to quickly transition such a force in response to a crisis or engage the People's Liberation Army (PLA) in conflict. **Keywords:** U.S. Marine Corps, Space Force, Indo-Pacific area, Joint task forces, force structure, great power competition, China, People's Liberation Army, PLA

## Introduction

The most comprehensive and serious challenge to US national security is the People's Republic of China's (PRC's) coercive and increasingly aggressive endeavor to refashion the Indo-Pacific region and the international system to suit its interests and authoritarian preferences.<sup>1</sup>

Unlike any previous adversary the United States has faced, China has the potential to match or exceed the United States economically, diplomatically, militarily, and technologically. The United States does not want a war with

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*Journal of Advanced Military Studies* vol. 15, no. 1

Spring 2024

[www.usmcu.edu/mcupress](http://www.usmcu.edu/mcupress)

<https://doi.org/10.21140/mcu.j.20241501004>



China. Instead, the United States seeks global competition with China as a means of deterrence to avoid a crisis or, worse, a conflict. China is actively modernizing the People's Liberation Army (PLA) to become a regional, and eventually global, power. The PLA bears the responsibility to "shape [China's] security posture, deter and manage crises and conflicts, and win local wars."<sup>2</sup> Should a conflict arise between the United States and China, U.S. planners expect China to use the PLA to attempt a *fait accompli* to rapidly eliminate U.S. regional capabilities. China's goal is to achieve a decisive victory against the United States that will cause the United States to negotiate for peace rather than suffer additional casualties.

To deter China from escalating beyond its current level of competition against the United States and countering China's attempt at a *fait accompli*, the Joint Staff is developing an inside-out defense in which a Joint Task Force (JTF) will have an established and dispersed inside force, which the Marine Corps refers to as the stand-in forces (SIF), on the first island chain that will coordinate operations with the outside force on the second island chain to conduct strikes against the PLA. This JTF coordination will occur within kill webs. As explained in *A Concept for Stand-in Forces*, "kill webs allow for the rapid identification and selection of assets for tasking and re-tasking within and across military boundaries from disaggregated or distributed forces. Stand-in Forces help the fleet and joint force complete kill webs."<sup>3</sup> Kill webs seek to integrate each Service's different and often overlapping kill chains to improve sensor-to-shooter, cross-domain fires, multi-domain warfare, and cross-domain warfare. By integrating the kill chains, kill webs represent the redundant and resilient network of communication relays and sensors that allow for the effective employment of kinetic and nonkinetic weapons. In the event of a conflict, the JTF's goal is to use kill webs to blunt PLA offensive operations by applying attrition warfare to wear down China's will to continue the conflict.

China has developed antiaccess/area-denial (A2/AD) capabilities consisting of a sophisticated network of short-, medium-, and long-range sensors and ballistic missiles that are supported with an integrated air defense, medium- and long-range bombers, and antiship cruise missiles.<sup>4</sup> These capabilities exist primarily to defend mainland China from attack but can be employed in an offensive capacity. Some long-range A2/AD capabilities can strike targets near the second island chain. Success for the United States in such a conflict will depend on how well this JTF can maneuver, execute multidomain fires, and survive inside the PLA's A2/AD environment.

A conflict with China would likely be over Taiwan's reunification or China's maritime claims to the South China Sea, presenting unique geographic and strategic challenges that a JTF must overcome to defeat the PLA. The USINDOPACOM area of responsibility covers more than 52 percent of the Earth's surface. The area of responsibility in this article will be the area defined by the South China Sea, East China Sea, and the first and second island chains.

Depending on the scope of the crisis or conflict, this area of responsibility could be divided into several area of operations, each assigned to a JTF commander. While a smaller portion of USINDOPACOM, the area of responsibility discussed in this article is still a large region that will present geographic, environmental, and limited infrastructure challenges for the United States and China.

Strategically, the United States regards China as a near-peer competitor and pacing threat; however, in this area of responsibility, China seeks to apply *informatized warfare* (a term used interchangeably with informationized warfare) to gain and maintain battlefield dominance over the United States. For China, informatized warfare has been a key concept in its modernization efforts to counter what it perceives as the technologically superior U.S. military by exploiting vulnerabilities in U.S. information networks while developing PLA capabilities for cyber warfare, electronic warfare, and precision-guided munitions.<sup>5</sup> China's goal is to use informatized warfare to enhance its A2/AD capabilities and effectively create a bubble in which the PLA will have military advantages over the JTF. The PLA's integration of all its services into its A2/AD environment will give it advantages in all the warfighting domains within the area of responsibility. By intently studying the U.S. military since the Gulf War, China has developed asymmetric capabilities to challenge the JTF's reliance on space superiority for assured access to satellite communication and Global Positioning System (GPS). Despite these advantages, China's primary focus on information dominance and enabling a hierarchical top-down decision-making process within the PLA creates a vulnerability that a well-integrated and equipped JTF could exploit.<sup>6</sup>

Should the United States be forced to engage China in a conflict, no single U.S. military Service will be able to defeat the PLA alone in this area of responsibility. Even the U.S. military working by itself cannot defeat the PLA in China's own backyard. Integration among all the U.S. Services as well as U.S. regional and global allies and partners will be critical to success. USINDOPACOM will develop a JTF to best counter the PLA threat that integrates all of the U.S. Services and regional allies and partners. Each Service will have to use space capabilities to support the JTF's ability to conduct all-domain operations against the PLA: the U.S. Air Force to conduct long-range strikes, the U.S. Navy to support ship movements and naval strikes, and the U.S. Army and U.S. Marine Corps to support inside forces' ability to conduct fire, maneuver, and remain in the kill webs. The way the Space Force supports the Marine Corps should be identical to how it supports the other Services and U.S. allies and partners within the JTF. The JTF will likely be run by the Navy, Air Force, or Army.

For a much larger conflict with China, the United States in coordination with USINDOPACOM would likely develop a multinational force with a framework that establishes JTFs designed to address specific mission requirements and operational needs. In the event of a crisis or conflict with China, a JTF can be established faster than a multinational force. As such, this article will focus on integrating the Space Force's and Marine Corps' unique capabili-

ties into a JTF to better cover their limitations and support the joint force. The Marine Corps has a large presence on the first island chain, organic mobility, force protection capabilities, and all-domain capabilities, making it ideally suited to be the JTF's inside force. Although equipped with all-domain capabilities, the Marine Corps' space capabilities are limited to localized ground-based jammers. Guardians have ground- and space-based capabilities that can restrict the PLA's ability to deny or degrade the JTF's space superiority. The Space Force's small size and lack of personnel and equipment in the area of responsibility make it dependent on other Services for terrestrial mobility and force protection. The Marine Corps and Space Force are perfectly suited to leverage each other's unique capabilities to cover existing limitations and become a critical component of the JTF.

For the Marine Corps and Space Force to be well-integrated into a JTF and use kill webs to exploit PLA vulnerabilities, USINDOPACOM must develop a JTF structure and package to help the United States quickly transition from competition with China to crisis or conflict. China aims to exploit U.S. vulnerabilities by using informatized warfare and regional A2/AD capabilities to achieve a quick, decisive victory. Any unnecessary delay in the United States transiting out of competition with China is a vulnerability that the PLA would exploit to conduct a *fait accompli* or gain an initial advantage that the JTF would be hard-pressed to overcome.

A JTF structure needs to be in place before a crisis or conflict starts so that a JTF package can be rapidly employed to utilize prepositioned equipment and capabilities to execute an assigned mission with established objectives and functional kill webs. To best support Marine Corps and Space Force integration now, USINDOPACOM must establish a JTF structure with command relationships and authorities, identify Space Force capabilities that will be assigned to a JTF, and the Joint Staff must update existing space doctrine to make it a joint document that expands on maritime and littoral operations. With a JTF structure in place, the next step is developing a JTF package. To further enhance Marine Corps and Space Force integration in the near future of two to three years, the USINDOPACOM must establish a JTF package that can employ Space Force personnel and ground-based capabilities that will be permanently based in the area of responsibility, utilize space-based capabilities assigned to USINDOPACOM, and use technological improvements to ensure JTF units can stay in the kill webs, survive inside the PLA's A2/AD environment, and deny the PLA's ability to maintain information dominance. Developing, exercising, and equipping a JTF structure and package will ensure the United States can quickly transition from competition with China to crisis or conflict.

The goal of this article is to discuss the threats the U.S. military faces in the area of responsibility, identify the Marine Corps' and Space Force's unique capabilities and limitations, and offer recommendations on improving the JTF structure now and the JTF package in the near future so that the Marine Corps and Space Force can be better integrated to support the JTF's ability to maneu-

ver, execute multidomain fires, and survive inside the PLA's A2/AD environment.

The article is divided into three main sections. The first section will focus on the threats and challenges the United States will face in the area of responsibility due to geography, environment, limited infrastructure, and PLA capabilities. It will also discuss how the U.S. military can exploit vulnerabilities within the PLA's structure. The second section will examine the unique capabilities and limitations of the Marine Corps and Space Force and how, when well integrated into a JTF, each Service's unique capabilities can cover their respective limitations and enhance the JTF's lethality. The third section will further discuss the above recommendations for both the JTF structure now and the JTF package in the near future to ensure a well-integrated Marine Corps and Space Force can improve the JTF's ability to support the inside-out defense.

### **Challenges and Opportunities of Operating in the First and Second Island Chains**

The first section of this article will look at the challenges of operating in the area of responsibility based on geography, environment, limited infrastructure, and PLA A2/AD capabilities. It will conclude by discussing how a JTF can use some of these challenges to its advantage and exploit PLA vulnerabilities. Operating in the East China Sea, South China Sea, and first and second island chains will present significant challenges that a JTF must overcome. The tyranny of distance, lack of infrastructure, challenging environment, and PLA A2/AD capabilities will make it difficult for the United States to respond to a China-initiated crisis or deny China's attempt at a *fait accompli* to rapidly eliminate U.S. and allied capability in a decisive battle.

Facing the PLA in this region will force the JTF to operate inside highly sophisticated A2/AD environment: "In addition to expanding its conventional forces, the PLA is rapidly advancing and integrating its space, counterspace, cyber, electronic, and informational warfare capabilities to support its holistic approach to joint warfare."<sup>7</sup> The PLA has developed informatized warfare to apply and integrate its advancements in these warfighting domains. The goal of informatized warfare is to use information dominance and space superiority to deny and disrupt the technological advantages that the U.S. military has been relying on for decades. China seeks to evolve informatized warfare into intelligentized warfare through the further development of advanced technology such as artificial intelligence (AI), improved autonomy of unmanned systems, and more sophisticated space-based capabilities.<sup>8</sup> Intelligentized warfare will rely heavily on AI for faster data collection and manipulation to enable PLA leaders to make faster decisions than their adversaries and give the PLA a significant first mover advantage.

While China will have some advantages, it will be just as strained operating in this vast area, tracking and attempting to target the dispersed JTF units, and controlling its forces with a highly centralized command structure that will use

its technological advancements to exercise greater control over PLA forces. A well-developed, integrated, and equipped JTF could exploit these PLA vulnerabilities to either deter a conflict with China or blunt PLA offensive operations.

### **Geographic, Environmental, and Infrastructure Challenges**

Geographically, the South China Sea is the largest sea in the world, covering an area that is a little bigger than India (1.4 million square miles). Including the East China Sea increases the size to nearly 2 million square miles. Although there are several definitions of the first and second island chains, a graphical depiction of the Department of Defense (DOD) definition is provided below.<sup>9</sup> The first island chain varies in distance from China to as close as 160 kilometers to as far as 1,700 kilometers. The first island chain is approximately 4,989 kilometers long, starting at the southern tip of mainland Japan and running along the South China Sea's eastern and southern borders. The second island chain is roughly 1,996 kilometers east of the first and extends approximately 4,989 kilometers from Japan to Indonesia. For reference, the distance from Los Angeles, California, to the island of Maui in Hawaii is 4,989 kilometers. The distance between the first and second island chains is roughly the distance from Los Angeles to the middle of Texas. In a conflict with China, the PLA would attempt to control an area bigger than India, while the JTF's inside force would be spread across a 4,989-kilometer island chain supported by an outside force more than 1,600 kilometers away. Although the inside force would be concentrated around the sea lines of communication, this is still a vast distance that will create challenges for the JTF and PLA.

The vast distances, tropical weather, limited freshwater, extreme temperatures, and dense vegetation in the first and second island chains will present environmental challenges the JTF must overcome. Addressing these challenges demands careful logistics planning and technological advancement to ensure the personnel in place can be sustained and their equipment is durable enough to withstand these harsh conditions. Complicating the logistics issue further will be the requirement to sustain the force while operating inside the PLA's A2/AD environment. The environmental challenges in this area will stress a JTF's ability to keep the inside force a viable part of the kill webs through low signature logistical sustainment, communications, and execution of fire and maneuver.

Geographically, the JTF faces an asymmetric disadvantage, as the area of responsibility is far closer to mainland China than the continental United States. In a conflict with China, the PLA will benefit from internal lines of communication for sustainment. The United States currently has centralized logistics hubs in Japan and Guam. Instead of relying on these vulnerable hubs for sustainment, the United States is working to disperse its logistics footprint through prepositioned stockpiles of water, food, fuel, and medical supplies. This will allow the JTF to disperse faster in a crisis or conflict and maintain a lower signature, as it will be less dependent on resupply.

Diplomatic agreements and regional infrastructure improvements must be

**Map 1.** The first and second island chains



Source: *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China, 2010* (Washington, DC: Office of the Secretary of Defense, 2010), 23.

made before prepositioning these stockpiles. Most islands in the area of responsibility are remote, austere locations with limited ports, airfields, roads, and communication networks whose governments prefer to stay neutral in the ongoing U.S./China competition. Diplomatically, the United States is actively working to establish bilateral partnerships with these countries to gain access to their existing infrastructure so that improvements can be made and the United States can begin prepositioning logistics stockpiles in the next 2–3 years. Fortunately for the United States, China's wolf warrior diplomacy and aggressive actions in the area of responsibility have helped the United States gain regional partners. In February 2023, the United States expanded its military involvement with the Philippines by resuming its Enhanced Defense Cooperation Agreement to gain access to four more bases, bringing the total to nine.<sup>10</sup> The Philippines are a critical part of the first island chain. Greater access and partnership with this island state will significantly improve the United States'

ability to establish prepositioned logistics stockpiles and the inside force's ability to deter and blunt the PLA.

### **China's Regional Capabilities**

The South China Sea and East China Sea are China's backyard in which it has developed infrastructure and A2/AD capabilities to give the PLA an advantage. China's strategic actions support its plans to become a regional power and employ informatized warfare. In this area of responsibility, the United States will be fighting on foreign shores, while the PLA will benefit from its regional advantage. Scobell et al. explains that "with a focus on playing the 'home game,' the major tenet of China's 'informatized' strategy is to build capabilities to deny the ability of a powerful state to gain and maintain access to operating areas that hold Chinese interests at risk."<sup>11</sup> In a conflict with the United States, China sees itself as the weaker opponent that must develop and use any capability that denies the U.S. military access to the area of responsibility. Information dominance and space superiority are critical to China's informatized strategy and warfare. As such, the PLA continues developing A2/AD capabilities to "blind and deafen the enemy."<sup>12</sup> For the JTF, this means cutting off individual units' ability to stay in the kill webs. Without the ability to communicate and coordinate, a dispersed force would be rendered ineffective and vulnerable to attack. In the event of a crisis or conflict, the PLA has developed a counterintervention doctrine and supporting A2/AD capabilities to stifle the U.S. military's ability to project power rapidly into, or operate effectively within, the area of responsibility during a conflict.

The PLA has been intently studying the U.S. military since the Gulf War and has developed advanced military capabilities that will challenge the JTF's ability to maintain air, sea, and space superiority in the area of responsibility.<sup>13</sup> Specifically, the PLA has focused on the U.S. military's dependence on space capabilities.<sup>14</sup> As the United States has become more reliant on space to give it a military advantage, the PLA views space capabilities as "not only the glue of the modern integrated battlefield, but also the glue of the modern military power system. . . . Once the space information guarantee is lost, the battlefield will collapse and the war system will also be paralyzed."<sup>15</sup> In the PLA's assessment, U.S. military dependence on space has become a critical vulnerability that the PLA plans to exploit by developing space and counter-space capabilities that will give it an asymmetric advantage on the battlefield.

China is evolving from informatized warfare to intelligitized warfare with the development of more sophisticated technology such as AI.<sup>16</sup> This new type of warfare will help the PLA achieve a *fait accompli* over the United States by using rapid information processing to provide senior commanders with the best situational awareness for a faster decision-making process. Advanced technology will improve the information and intelligence flow to strategic leaders and increase the speed at which their decisions reach the tactical level. The PLA will be able to react faster to changing conditions on the battlefield and maintain a

faster operational tempo against the United States.<sup>17</sup> Intelligitized warfare will further empower the centralized control senior decision-makers can exert over PLA units.

### **Taking Advantage of Geography and PLA Weaknesses**

Although China has a regional advantage in the South China Sea and East China Sea, it will still have to overcome the same geographic and environmental challenges that the United States and its allies and partners will face. The South China Sea and East China Sea make up a vast area where dispersed units maintaining a low signature can hide inside China's A2/AD environment. The PLA will prioritize identifying, tracking, and targeting the JTF's inside force. Actively searching for low-signature JTF units may come at the cost of revealing the location of PLA capabilities that can be targeted. The JTF can blunt PLA offensive operations by forcing the PLA to expend resources to search for elements of the JTF's inside force. If those elements can coordinate attacks with the outside force or be able to fire, maneuver, and hide again, then the JTF can both blunt PLA offensive operations and deny the PLA's freedom of maneuver in the East China Sea and South China Sea. Given the vast expanse of water in the area of responsibility, the U.S. Navy will play a critical role in blunting PLA operations and denying their freedom of maneuver. The geography and environment will be a challenge that the JTF could turn into an advantage to help maintain the inside force's low signature and help blunt any PLA offensive operation.

Infrastructure within the region will take time to build, yet the United States is making progress. China's wolf warrior diplomacy and aggressive actions with their East China Sea and South China Sea neighbors have done much to help the United States gain and build stronger ties with allies and partners in the region. China wants to be seen as a friendly state that seeks to help other countries through its Belt and Road Initiative (BRI), yet its actions are causing more countries to see China as a threat. The United States should continue highlighting China's aggressive behavior toward its neighbors to increase the number of countries willing to let the United States reposition capabilities within their borders.

In China's efforts to counter the U.S. dependence on space and embrace the concept of informatized warfare, China has created its own dependency on space and information. Using space superiority to gain "information dominance as a means to win on a modern net-centric battlefield is a key pillar of Chinese military strategy. Denying that pillar makes Chinese success unlikely, and the US deterrence strategy should exploit that vulnerability."<sup>18</sup> To deter China from escalating its competition with the United States into conflict, the United States needs to create doubt in the minds of senior PLA and Chinese Communist Party (CCP) leaders: doubt that now is not the right time to initiate a conflict, doubt in the location of U.S. forces, and doubt in the validity of the information being provided to them to make a decision. Degrading the systems that enable informatized warfare, such as space capabilities, and hiding



forces within the area of responsibility will create this doubt that a JTF can use to deter conflict or defeat the PLA.

In the event of a conflict, China is developing a highly centralized command and control system for senior CCP and PLA leaders to exercise control at the tactical level. Given the CCP's control over the PLA, senior CCP leaders will likely be heavily involved in the decision-making process. Intelligentized warfare will prioritize leveraging AI to gain and process intelligence faster than an adversary, so senior CCP and PLA leaders can make decisions faster than their U.S. counterparts. Pursuing advanced technology for the PLA reflects "a system that prefers and gravitates towards centralized military decision-making. However, such a system is prone to becoming overwhelmed and for seniors to reach down and interfere."<sup>19</sup> The PLA command and control system favors control over command. The PLA goal of rapid decision-making could be hampered if the decision-makers are only a select few strategic CCP and PLA leaders who place their faith in AI yet could find themselves overwhelmed and doubting the information their system is presenting them. Strategic leaders making bad tactical decisions within a centralized command and control system creates a strategic and tactical vulnerability that a well-integrated and equipped JTF can exploit.

## **Marine Corps and Space Force Unique Capabilities and Limitations**

The second section of this article will examine Marine Corps and Space Force unique capabilities and limitations specific to USINDOPACOM and the area of responsibility. This analysis is critical to determining how each Service can be integrated into the JTF to defeat PLA capabilities and exploit PLA vulnerabilities. With this understanding, it becomes possible to provide recommendations for what must be done now and in the near future to improve each Service's contributions to the JTF.

With III Marine Expeditionary Force (III MEF), the Marine Corps has 20,000 forward-deployed or permanently stationed personnel primarily in Japan and Guam that could be rapidly deployed throughout the area of responsibility to operate as USINDOPACOM's stand-in forces to deter or counter PLA offensive operations. The stand-in forces would be useful because they "[are] uniquely positioned to enable joint force access and targeting; sense and make sense of the battlefield; and close kill chains, applying lethal fires, when required, to deter or defeat our adversary."<sup>20</sup> III MEF developed the Marine Littoral Regiment to serve as this inside force supporting the inside-out defense. With organic mobility and multidomain capabilities, the Marine Littoral Regiment is the stand-in forces' maneuver element uniquely positioned on the first island chain to enable all-domain JTF operations.

The Marine Corps relies heavily on space capabilities. While its organic ability to conduct fires and effects in the space domain is limited to localized, ground-based jammers, the Marine Corps can still kinetically engage PLA coun-

terspace capabilities. The PLA has developed ground-to-space, space-to-space, and space-to-ground capabilities that threaten U.S. space superiority. This PLA threat necessitates that the Marine Corps integrate with the Space Force, which operates a wide range of capabilities critical to the JTF's ability to conduct all-domain operations without prohibitive interference in the space domain. Space Force elements assigned to the JTF and working in coordination with U.S. Space Command (USSPACECOM) ensure that the JTF maintains space superiority by protecting friendly space assets and denying or degrading any adversary's use of space. As the newest U.S. military Service, the Space Force is the smallest, lacks organic mobility and force protection, and has a small force posture in USINDOPACOM with a recently established Service component headquarters and no ground-based capabilities in what would be the JTF's area of responsibility. The Space Force must be able to integrate its capabilities into the JTF and leverage Marine Corps strengths to improve its support to the JTF.

### **Marine Corps Unique Capabilities**

The Marine Corps is an expeditionary crisis response force prepared to be the stand-in forces in a conflict with the PLA. III MEF is permanently stationed on the first and second island chains inside the reach of the PLA's A2/AD capabilities and supported by forward-deployed units.<sup>21</sup> It is both a deterrent and combat force capable of blunting PLA offensive operations in the event of a conflict. Under Marine Corps direction, III MEF developed the Marine Littoral Regiment to support the JTF as the stand-in forces' maneuver element within the first island chain. The Marine Littoral Regiment will be "mobile, low-signature, persistent in the contact to blunt layers, and relatively easy to maintain and sustain as part of a naval expeditionary force."<sup>22</sup> As one of the JTF's maneuver elements, the Marine Littoral Regiment uses organic mobility and low-signature capabilities to disperse and rely on prestaged logistics to hide within the first island chain's key terrain locations, specifically areas that challenge the PLA's sea lines of communication. From this vantage point, the Marine Littoral Regiment serves as a deterrent force to "contest what Chinese doctrine has identified as necessary prerequisites for conducting a successful military campaign: air superiority, sea control, and information dominance."<sup>23</sup> The Marine Littoral Regiment can coordinate with other elements of the JTF to blunt PLA offensive operations by attacking PLA aircraft and ships. Remaining hidden in key terrain locations allows the Marine Littoral Regiment to prevent the PLA from gaining information dominance and helps create doubt in the minds of Chinese leaders. This doubt could deter a conflict or, at least, give the United States time to prepare for conflict. Even if the Marine Littoral Regiment cannot deter the PLA from escalating a crisis into a conflict, the Marine Littoral Regiment can still delay the PLA long enough for additional elements of the JTF to flow into the area of responsibility and be in a better position of advantage. Should the U.S. strategy of deterring conflict with China fail, the Marine

Littoral Regiment, as III MEF's contribution to the JTF, will at least prevent the PLA from accomplishing a fait accompli of United States, allied, and partner forces in the region.

The Marine Littoral Regiment supports the inside-out defense by being in an established position to rapidly disperse within the first and second island chains and, if needed, deploy to Taiwan before a conflict starts to help the JTF blunt PLA offensive operations. When effectively employed by the JTF, the Marine Littoral Regiment will be the inside force that will continue to attack the PLA and provide the JTF with the ability to conduct operations inside the first island chain. The Marine Littoral Regiment has organic "multi-domain capabilities such as sensors, missiles, and electronic warfare systems" that can "disrupt an adversary's plans at every point on the competition continuum."<sup>24</sup> From key positions in the first island chain, the Marine Littoral Regiment supports JTF kill webs by creating small weapons engagement zones to identify, track, target, and, when needed, engage PLA forces. Another Marine Littoral Regiment mission supporting the inside-out defense will be to "degrade key Chinese systems to create gaps in China's A2/AD networks that outside forces could then exploit."<sup>25</sup> Coordinating operations with outside forces in either a support or supporting role will be critical to blunt PLA efforts to move freely within the area of responsibility and expand operations outside the first island chain. This coordination will also be critical to creating windows of opportunity where the outside force can logistically sustain the inside force with ammunition, food, water, medical supplies, and casualty evacuation. As the JTF's inside force, the Marine Littoral Regiment fills a critical role in deterring China from starting a conflict and denying PLA efforts to decisively defeat the United States should deterrence fail.

### **Marine Corps Limitations**

The Marine Corps is not directly responsible for developing, acquiring, or operating military space capabilities, and it does not have the same level of responsibility for developing and maintaining these capabilities. The Marine Corps has organic capabilities in every warfighting domain, yet its space capabilities are limited to ground-based, localized jammers. To utilize the full range of space capabilities, the Marine Corps uses Marine Space Support Teams and is developing the Marine Corps Information Command to provide space operations expertise to ensure Marine Corps commanders can maximize the data, products, and services space capabilities provide to improve planning, integrating, and coordinating across all warfighting functions. Marines trained in space operations will help the Marine Corps "take full advantage of space-based capabilities in order to increase lethality and survivability"; however, these planners and coordinators are still just requesting the full range of services provided by space-based capabilities from the command or service who owns these assets.<sup>26</sup> For organic access to the full range of space-derived data, products, and services,

the Marine Corps must integrate with the Space Force because “in a conflict with a peer adversary, first moves may be in space and cyber, so we must enable our Stand-in Forces, MEUs, and MEFs to integrate with, and have access to, those capabilities now.”<sup>27</sup>

To be an effective inside force that can participate in the JTF’s kill web to blunt PLA offensive operations and coordinate operations with the outside force, the Marine Corps must be able to counter the PLA’s space capabilities. Maintaining space superiority against China is a critical mission the JTF will have to rely heavily on USSPACECOM to accomplish. While USSPACECOM fights to maintain space superiority, the Marine Corps must be prepared to fight through the degradation of space capabilities and use integrated space capabilities to ensure the JTF gains and maintains space superiority over the PLA.

The degradation or possible loss of space capabilities cannot be the critical component that shuts down the Marine Littoral Regiment’s offensive capability. A key component of the inside-out defense will require the Marine Littoral Regiment to establish and maintain operational “bubbles” inside the PLA’s A2/AD capabilities that can use a combination of terrestrial- and space-related systems to keep PLA units out of their kill web by denying/degrading the PLA position, navigation, timing, communications, and ability to send and receive intelligence, surveillance, and reconnaissance. Accomplishing this objective will require the Marine Littoral Regiment to be integrated with dedicated Space Force units that can assure the regiment maintains access to the JTF’s kill webs via redundant position, navigation, timing, and communication as well as the ability to send and receive intelligence, surveillance, and reconnaissance. This will also be critical to ensuring the Marine Littoral Regiment can maintain its low signature to maneuver and survive on the first island chain and potentially Taiwan. Seamless integration with the Space Force as part of the JTF is the best means of mitigating the Marine Littoral Regiment’s risk of fighting the PLA with degraded space capabilities.

### **Space Force Unique Capabilities**

The Space Force develops and maintains a growing range of space capabilities critical to the security and effectiveness of the U.S. military, including space security, combat power projection, space mobility and logistics, information mobility, and space domain awareness. Maintaining space capabilities is important because “space operations preserve freedom of action, enable joint lethality and effectiveness, and provide independent options.”<sup>28</sup> Guardians conduct space operations to ensure U.S. military space capabilities can achieve global and local effects. Global effects support strategic objectives. Local effects support operational and tactical objectives. At the operational and tactical level, the goal of the Space Force is to ensure that in a crisis or conflict the JTF can maintain local space superiority and deny or degrade any adversary’s use of space capabilities against the JTF. This is critical in a conflict with China. Only by the United States maintaining space superiority within the area of responsibility can it hope

to win in a conflict against the PLA. The Space Force's advanced space capabilities are critical in helping the JTF maintain local space superiority and keeping the Marine Littoral Regiment in the JTF's kill webs. For assured communications, position, navigation, timing, intelligence, surveillance, reconnaissance, and JTF kill web access, the Marine Littoral Regiment will rely heavily on combat power projection, space mobility and logistics, and information mobility.

Considering the U.S. military's dependence on space capabilities, the Space Force is a critical enabler in providing JTF integration across the Services: "As DoD builds superior space forces, it must further develop and enhance the integration of space warfighting doctrine, capabilities, and personnel into national, joint, and combined operations."<sup>29</sup> Guardians are tasked with being "expert integrators and communicators to ensure Joint counterparts in all Services and at all levels understand fast evolving space capabilities and threats, and their operational implications."<sup>30</sup> Although limited in number, guardians leverage their specialized training and control of space capabilities to ensure the joint force maintains space superiority.

In November 2022, the Space Force activated USSPACEFOR-INDOPAC as its first Service component to an overseas combatant command due to the threat that China poses to U.S. space capabilities and the need to quickly integrate guardians into USINDOPACOMs operational and tactical levels. The Space Force's goal is to leverage space capabilities to keep China at the competition level and deter it from escalating to a crisis or conflict. It will accomplish this by avoiding operational surprise and denying the first mover advantage in space.<sup>31</sup> Should deterrence fail, guardians must be well integrated into the JTF to keep a crisis from further escalating and ensure the United States can defeat the PLA. USSPACEFOR-INDOPAC is the first step toward further guardian integration with the other Indo-Pacific units focusing on deterring or defeating China.

### **Space Force Limitations**

Compared to the other U.S. military Services, the Space Force is the smallest, lacks organic mobility and force protection, and has a small presence in USINDOPACOM with no assigned capabilities. The Space Force's projected size is 16,000, with about one-half being uniformed personnel.<sup>32</sup> By comparison, III MEF has 20,000 uniformed personnel assigned. The Space Force supports global and local requirements with a smaller force than the current Marine Corps forces on the first and second island chains. Each Service has space subject matter experts that support space planning, coordination, and training efforts, yet the Space Force will still be challenged to have a presence within each combatant command below the strategic and operational level. The Space Force must continue to be deliberate in where it decides to place its personnel and assets so that they can be directly tied into a combatant command's operational and tactical level.

Without organic mobility and force protection, guardians must be assigned

to units with these organic capabilities. For mobility, the Space Force must compete with the other Services for U.S. Transportation Command assets. Based on the build-up of forces that the United States anticipates needing to deter a crisis with China from escalating to a conflict, the Space Force will face strong competition from the other Services to get to the area of responsibility. Should a conflict arise, it will be extremely difficult to continue flowing forces into the first island chain due to the PLA's A2/AD capabilities and the vulnerability of large transport aircraft and ships. Regarding force protection, the Air Force provides the Space Force with this capability as a base support function. If deployed, guardians must rely on another Service to provide force protection. Since the Space Force will likely not have organic mobility and force protection based on its mission set, guardians must be assigned, in either a support or supporting role, to a unit with these capabilities. The Marine Corps, with its Marine Littoral Regiment, can provide mobility and protection.

Creating USSPACEFOR-INDOPAC is a good step toward integrating guardians into every level of USINDOPACOM; however, it currently consists of a headquarters unit in Hawaii, providing operational level support, and a component field command, U.S. Space Forces Korea (USSPACEFOR-KOR), assigned to U.S. Forces Korea. Unlike the other Services, USSPACEFOR-INDOPAC has no presence on the first or second island chain and no service-specific capabilities assigned. There is currently no direct coordination between the Space Force and those U.S., allied, and partner forces on the first and second island chain. If needed for deterrence or conflict, the Space Force must identify and source units from the United States to move into the area of responsibility. The first time a guardian steps foot in the area of responsibility should not be as a JTF attempts to deter crisis escalation or blunt PLA offensive operations.

If a JTF needs an assigned space-based capability, it must request and be allocated that capability from the Space Force. JTF requests for desired space effects would go to USSPACECOM for approval. A JTF unfamiliar with controlling and employing those ground-based space capabilities that could be deployed into the area of responsibility will face challenges in seamlessly integrating those capabilities and effects with the rest of the force and using them to support the inside-out defense. If the guardians' goal is to ensure the U.S. military maintains space superiority against China and deters China from escalating beyond competition, then the Space Force must integrate its personnel and capabilities into the JTF and leverage existing Marine Corps strengths.

### **Recommendations for Marine Corps/Space Force JTF Integration Now and in the Near Future**

The third and final section of this article will provide recommendations for how the Marine Corps and Space Force can be integrated into the JTF structure now and what must be done in the next two to three years to improve their roles within a lethal JTF package. The goal is to ensure that the Marines and guardians can leverage each other's unique capabilities to maneuver, execute

multidomain fires, and survive inside the PLA's A2/AD capabilities. These recommendations will help the JTF overcome the challenges of operating in the area of responsibility against the PLA. Building a JTF structure and package is a complex task in which the responsibility falls on the combatant command. Having to hastily assemble a JTF in response to a crisis or conflict presents a significant risk due to lost time building such an organization and the inability to exercise it prior to execution. The PLA would exploit this risk to its advantage. Having a JTF structure and package in place will help USINDOPACOM mitigate the risk it will face should it have to quickly transition from competition with China to crisis or conflict.

A JTF structure is a permanent military organization that ties strategic objectives to operational planning. It establishes integration and support/supporting relationships among the various service components by defining hierarchies and authorities. The JTF structure also determines which capabilities need to be in place. The Space Force has no presence and no ground-based space control capabilities in the first or second island chain. As such, USINDOPACOM must determine which guardian capabilities it will need and how to get those capabilities and effects into, and assigned to, the area of operations. For a JTF structure integrating the Marines and guardians, USINDOPACOM must clearly define command relationships and authorities and identify needed Space Force personnel and space-based capabilities. The U.S. military must begin developing a joint space doctrine that expands on the current *Space Operations*, Joint Publication 3-14, and adds a section on maritime and littoral operations.

Once USINDOPACOM establishes a JTF structure, it can begin developing a JTF package. Based on the JTF structure, a JTF package is a temporary group of units tailored to a specific mission. Within the JTF package, the supporting and supported relationships are more clearly defined. A JTF package could be used to blunt PLA offensive operations or respond to a crisis with the mission of deterring it from escalating into conflict. To accomplish its assigned mission, the JTF package must be capable of maneuvering, executing multi-domain fires, and surviving against the PLA. In the next few years, the U.S. military must place Space Force personnel and ground-based capabilities where they can be most effective in the area of responsibility, assign ground-based capabilities to USINDOPACOM, and make technological improvements that support JTF units' ability to stay in the kill webs, maintain a low signature, and survive through maneuver and logistical sustainment.

### **Recommendations for a JTF Structure**

USINDOPACOM is responsible for organizing the JTF structure according to a clearly defined mission and set objectives, required capabilities, and threat assessment. The JTF structure includes a range of capabilities and personnel. It is designed to respond to a wide range of missions and challenges with clearly understood hierarchies and the required authorities to execute kinetic and nonkinetic fires. When developing a JTF structure, the focus should be on

establishing a more comprehensive organization that is flexible enough to respond to a wide range of missions and challenges, from deterring conflict escalation to blunting PLA offensive operations. The JTF structure should establish the framework for building a JTF package assigned to a specific mission.

### **Establishing Command Relationships and Authorities**

Since the JTF will rely heavily on space capabilities and may be required to conduct space control operations to maintain space superiority, “[c]learly defined command relationships are crucial for ensuring timely and effective execution of space operations in support of combatant commander (CCDR) objectives.”<sup>33</sup> Command relationships establish the main effort and supporting efforts as determined by the mission and objectives. They allow the JTF commander to execute mission command. Integration among the different services and allies and partners starts with command relationships, or hierarchies, by defining the supporting and supported relationships. The JTF structure would establish these supported or supporting relationships within the various elements of the JTF, preferably based on functional lines. Once codified, the JTF structure is a place to begin planning and tailoring the JTF for a specific mission; however, command relationships can be adjusted accordingly based on the mission and set objectives. Initial command relationships must first be defined within the JTF structure to help reduce the time required to plan, build, and establish a JTF. If a predicted crisis or conflict with China is imminent, then USINDOPACOM needs an effective JTF that can be quickly stood up today. This will help deter the PLA from escalating a crisis into conflict and, should conflict arise, prevent China from successfully executing a fait accompli in a potential conflict.

The JTF structure must also establish authorities for executing kinetic and nonkinetic fires. Every element and commander within the JTF must understand their allocated authorities. In a conflict over Taiwan, those appropriately delegated authorities should account for the challenges the JTF will face, including maintaining space superiority. Authorities should be established so a unit can continue executing its mission, even if the PLA temporarily cuts it off from the JTF’s kill webs. Quickly executing missions at the tactical level while possibly cut off from higher headquarters can only be accomplished if the JTF structure establishes standing rules of engagement and predesignated, developed, and approved target lists with specific preapproved fires authorities. In a conflict, authority to execute these fires based on standing rules of engagement must get pushed down to lower levels to allow tactical units to quickly respond to changing situations on the battlefield. Authorities must be deliberately planned and preestablished within the JTF structure prior to mission execution.

Unlike previous conflicts involving the U.S. military, the JTF’s space superiority may not be guaranteed, and elements of the JTF may only have windows of space superiority with which to execute a mission. The Marine Littoral Regiment, as part of the JTF’s inside force, should be able to use or receive timely approval to coordinate the use of space-based capabilities deliv-



ering terrestrial effects that support the Marine Littoral Regiment's ability to conduct fire and maneuver. Presently, the approval authority for employing space-based capabilities is at the National Command Authority or the commander of USSPACECOM. USINDOPACOM can delegate space coordinating authority and has planning teams and coordination cells to help prioritize space support requests. USSPACECOM will likely maintain operational and tactical control of space-based capabilities for the duration of any conflict. The Marine Littoral Regiment can still quickly execute a complex mission involving ground-based space capabilities if integrated with a guardian unit that has access to space-derived data, products, and services that can support the regiment.

### **Identify Space Force Personnel and Capabilities to be Assigned to JTF**

Employing Space Force units within a JTF structure will be challenging, as none are forward deployed or permanently stationed within the area of responsibility. USINDOPACOM must identify the capabilities it will need in a JTF structure, coordinate with the Space Force for those capabilities, and determine how to move those personnel and associated equipment into the AOR. Marines will integrate with guardians in accordance with the JTF structure's established command relationships and authorities, but the Space Force will first need to get to the area of responsibility. Based on the current disposition of the Space Force, those guardians would have to be sourced from the United States. To get an effective JTF in place now, Space Force will need to permanently base those personnel and equipment in the area of responsibility as soon as possible. Once identified, those units must begin integrating with other Services at the operational and tactical levels. For the Marine Corps, the operational level will be III MEF and the tactical level will be the Marine Littoral Regiment and 31st Marine Expeditionary Unit (31st MEU). Space Force planners should work directly with III MEF to begin coordinating space-based effects into the operational and tactical level to support the inside force. Guardian units must also begin working with the other U.S. Services and regional allies and partners to conduct joint exercises and gain familiarity with the local area. The first time a guardian assigned to the JTF steps foot on the first island chain and begins integrating with their fellow joint partners should not be as the JTF is being stood up to respond to a crisis or conflict. The JTF commander will be accepting a high amount of risk if the many JTF units cannot integrate, train with, and exercise their capabilities prior to execution.

USINDOPACOM must also determine which planning and operational cells must be augmented with additional personnel. Due to the Space Force's small size, space planners and subject matter experts must be brought in from other Services. To be adequately represented, the Marine Corps must send some of its space subject matter experts to the JTF headquarters and USINDOPACOM. The Space Force must have representation at the JTF headquarters and maintain its existing headquarters footprint within

USSPACEFOR-INDOPAC. Given the importance of maintaining space superiority, each Service must have space subject matter experts well-represented and appropriately placed within the strategic and operational levels.

Dedicating ground-based space capabilities and assigning guardian units to be permanently stationed in the area of responsibility and others that can rapidly deploy as needed to support a China-focused JTF are temporary solutions that should be considered now.

### **Update Existing Joint Space Doctrine**

To help connect the JTF's operational plan for using space capabilities to support tactical execution, the U.S. military must develop a Joint space doctrine that updates the current *Space Operations*, Joint Publication 3-14, and expands on it by adding a new section on maritime and littoral operations. Considering the key role that naval forces will play in an area of responsibility largely defined by islands, JTF planners must be able to draw on a doctrine that coordinates space operations with maritime and littoral activities. By October 2024, the U.S. military should have working groups assigned to updating the Joint space doctrine. Additionally, the Marine Corps must sponsor a collaborative work with the Navy and Space Force to develop a new section of the Joint space doctrine focused on maritime and littoral operations.

Doctrine guides the development plans that can be used to establish tactics, techniques, and procedures. This doctrine should be applied to not only the Marine Corps and Space Force integration but also the guardian's integration with the other Services. All U.S. Service components and U.S. allies and partners have become heavily reliant on space assets. As such, "[t]he joint force must be capable of integrating military space operations as part of joint operations, be capable of defending the space assets that are critical enablers of joint operations and deny adversary benefits from their space capabilities."<sup>34</sup> An updated Joint space doctrine will provide a starting point for planners to better integrate military space operations into the JTF structure and develop missions that attack the PLA's space capabilities. The functional components of the JTF will use space capabilities to conduct all-domain operations against the PLA.

Updating the Joint space doctrine would also lay the groundwork for how other Services would support the Space Force. For the Marine Corps, this would provide initial guidance toward supporting guardians with organic mobility, logistical sustainment, and force protection. Supporting the Space Force should not be unique to each Service. To improve integration into the JTF structure, the Space Force should receive comparable, multilateral support from each Service. Supporting space operations and having space superiority contested are new problems for the U.S. military that must be accounted for when developing a JTF structure. A more inclusive Joint space doctrine will provide a starting position for the JTF structure to successfully connect operational plans to tactical execution so that the JTF can maintain space superiority and deny or degrade PLA space capabilities.

## Summary

A JTF structure in USINDOPACOM must account for the challenges of operating in the area of responsibility and against the PLA. China will seek to counter the JTF's traditional reliance on space to prevent U.S. forces from maintaining space superiority. Should China escalate its current competition with the United States to a crisis or conflict in relation to Taiwan, the United States will face risk as it attempts to transition out of competition. Having a JTF structure in place now with supporting doctrines, clear command relationships and authorities, and identified ground-based space capabilities with plans to assign forces and move them to (or preposition in) the area of responsibility will help mitigate this risk. With a JTF structure in place, the Marine Corps and Space Force can further integrate their unique capabilities to improve the JTF's lethality and combat effectiveness.

Once USINDOPACOM establishes a JTF structure, it must ensure that JTF personnel are properly trained and equipped to perform their roles. The JTF structure must be tested and utilized in wargames and exercises to include the application of an updated Joint space doctrine. An untested JTF with improvised doctrine reacting to a PLA crisis or conflict will struggle to regain and maintain the initiative. As the operational environment changes, it will be necessary for USINDOPACOM to review and refine the JTF structure to ensure that it remains combat effective. By constantly reassessing the mission and objectives, adjusting the capabilities, and making changes to the organization and training of the joint force, the United States may be able to deter China from escalating beyond competition and, if deterrence fails, be able to rapidly respond to any PLA-initiated event.

## Recommendations for a JTF Package in the Near Future

An established JTF structure enables the creation of a JTF package tailored to a specific mission. The near future recommendations for a JTF package will expand on the previous section's discussion of what the JTF structure needs now. These near future recommendations are what the U.S. military must do in the next few years to ensure it can rapidly transition out of competition with China to carry out any mission against the PLA while maintaining space superiority. Once Space Force personnel and ground-based space capabilities, and space-derived data, products, and services have been identified for inclusion in the JTF structure, the next step is forward deploying or permanently stationing those assets to where they can be most effective on the first or second island chain.

The mission of maintaining U.S. space superiority will largely fall on USSPACECOM. In the near future, USSPACECOM must determine what it needs to maintain this strategic capability and the priority of support it can provide to the JTF in the form of space-derived data, products, and services.

For the JTF package to be able to maneuver, execute multidomain fires, and survive, units within the JTF require capabilities that keep them in the kill webs, provide organic long-range sensing and shooting, and maintain a

low signature while conducting maneuver and logistical sustainment. Implementing these near future recommendations will improve the ability of the Marine Corps and Space Force within the JTF to deny or degrade China's ability to successfully conduct informatized warfare. The U.S. military must increase Space Force ground-based space presence in USINDOPACOM and provide technological improvements to ensure JTF units can stay in the kill webs, survive inside the PLA's A2/AD threat ring, and deny the PLA's ability to maintain information dominance.

### **Placing Space Force Personnel and Ground-Based Capabilities on the First or Second Island Chains**

Deploying Space Force personnel and their organic ground-based capabilities to the JTF's area of responsibility will consume valuable transportation resources and limit other Services' ability to flow forces into the area of responsibility to augment their existing capabilities within the first and second island chains. Depending on these guardian units' level of mobilization, it could take a week to more than a month to move them into the area of responsibility. USINDOPACOM needs to identify which Space Force personnel and capabilities will be needed to support the JTF so that they can begin training with other units in the area of responsibility is a good first step. The next step is to place these Space Force personnel and capabilities in the area of responsibility, where they will be in the best position to be quickly assigned and begin operating as a critical component to the JTF. If they are already in the area of responsibility, the Space Force will greatly assist the JTF's ability to rapidly transition from competition to crisis or conflict. Instead of waiting for transportation from the United States, guardians can use III MEF's organic mobility to rapidly deploy in support of the JTF package.

USSPACEFOR-INDOPACOM engages USINDOPACOM headquarters at the operational level. With an established permanent presence in the area of responsibility the Space Force will be better integrated with those first and second island chain units at the operational and tactical levels. This will allow guardians to gain greater familiarity with the area of responsibility's geographic challenges and better integrate with the other USINDOPACOM forces and U.S. regional allies and partners. Guardians can also partner with Marines to begin prepositioning logistics throughout the area of responsibility to improve the Space Force's ability to conduct rapid deployment and sustainment. If the U.S. military wants to maintain space superiority against the PLA, then it must add the Space Force to its long list of military personnel and capabilities already present in the area of responsibility.

### **Ensuring USSPACECOM Can Maintain Space Superiority**

USSPACECOM must identify the space-based capabilities it needs to maintain space superiority and counter PLA attempts to deny, degrade, and disrupt those capabilities. Satellites often contain several space-based capabilities that

support multiple areas of responsibility, combatant commands, and U.S. government agencies. A conflict with China could impact U.S. space assets supporting other strategic missions. USSPACECOM must continue to advocate for a U.S. space architecture that is redundant enough to absorb the loss of satellites and resilient to withstand certain kinetic and nonkinetic attacks. In addition, USSPACECOM should work with USINDOPACOM to determine which space-derived data, products, and services may be prioritized to best support the JTF.

Depending on the nature of the crisis or conflict, the JTF could play a role in supporting USSPACECOM's mission to maintain space superiority through kinetically striking PLA space capabilities or using assigned ground-based space capabilities. This will require coordination through the JTF's assigned Space Force elements. If that coordination is not rehearsed prior to a conflict, then the higher risk of failure could be disastrous for both the JTF and the United States.

### **Technological Advancements to Support the JTF**

The U.S. military must continue to advance technology that denies China's ability to conduct informatized warfare and enables the JTF package to remain in the kill webs while maneuvering, executing multidomain fires, and surviving within the reach of the PLA's A2/AD capabilities. With informatized warfare, China will strive to use its multidomain intelligence, surveillance, and reconnaissance capabilities to gain higher fidelity information faster than the United States so that the PLA can maintain a faster operational tempo and outpace the JTF's decision-making. Senior CCP and PLA leaders want to use informatized warfare to gain information dominance, so they can know where JTF units are located and quickly employ PLA forces against them. A JTF package can counter China's critical demand for information dominance by using space control to jam, deceive, deny, and disrupt PLA intelligence, surveillance, and reconnaissance. A well-integrated Marine and guardian force could apply these capabilities to create gaps within the PLA's A2/AD environment and inject doubt among senior CCP and PLA leaders concerning the fidelity of the information their system is providing them. This would slow down the PLA's decision-making ability and force the PLA to expend time and resources on attempting to regain information dominance. Denying China's ability to effectively conduct informatized warfare will allow the JTF to either deter China from escalating a crisis into a conflict or blunt China's offensive operations.

The U.S. military's continuing development of Joint all-domain command and control (JADC2) will improve the JTF's ability to communicate and attack PLA forces. Once operational, JADC2 will eliminate gaps in existing communication networks by linking multiple platforms across the area of responsibility. The goal is to flatten kill webs so that the JTF's network of sensors, communication nodes, and weapons can seamlessly connect. JADC2 will not only improve the integration between the Marine Corps and Space Force but also between the other Services, U.S. allies, and partners.

To defeat the United States, China will use the PLA's multidomain capabilities to identify and remove JTF units from the kill webs. Whether through kinetic or nonkinetic means, isolating a JTF unit will weaken the JTF package. To prevent the PLA from isolating a JTF unit, the U.S. military must advance capabilities such as JADC2 that assure communication and position, navigation, and timing to improve the JTF's ability to sense and shoot and allow units to maintain a low signature during maneuver and sustainment. For communication and position, navigation, and timing, the JTF needs redundant ground- and space-based capabilities to support a unit's primary, alternate, contingency, and emergency plan for staying in the kill webs. Critical space-based capabilities, such as satellite communications and GPS, must have alternative terrestrial-based land, sea, and air capabilities that could be fulfilled by unmanned systems. The U.S. military's space architecture augmented with access to commercial and allies' space-based capabilities should be resilient enough to withstand an attack and have enough redundant capabilities to ensure that the loss of a satellite does not permanently degrade or deny the JTF access to space-derived data, products, and services. If space-based communication and position, navigation, and timing are temporarily lost, then the JTF should be able to rely on terrestrial-based capabilities. The Space Force's role in supporting the JTF should be to guarantee space-based communication and position, navigation, and timing. If lost, then the JTF should have access to alternative terrestrial-based communications and position, navigation, and timing. Based on China's understanding of the U.S. military, the PLA's primary mission will be to deny or degrade the JTF's access to space-based capabilities. A JTF package can continue to communicate and use position, navigation, and timing if the United States develops redundant and resilient space-based capabilities that can withstand attacks and have terrestrial-based backup capabilities.

An improved, organic ability to sense and shoot will give the JTF a longer range to find, fix, track, target, engage, and assess the PLA. The JTF's inside force will consist of units varying in size from fire teams to companies spread across the first island chain. A longer-range, organic ability to fix, track, target, engage, and assess using kinetic or nonkinetic capabilities will allow the JTF units to support each other as required with overlapping fields of fire. Improvements to ground-based directed energy lasers would allow Marines to support guardians by delivering nonkinetic effects against PLA space-based capabilities in low Earth orbit. Being able to temporarily blind a low Earth orbit satellite would allow the JTF to help USSPACECOM maintain space superiority, create needed gaps in China's A2/AD capabilities, and remove a critical pillar in the PLA's efforts for informatized warfare.

To maintain a low signature, the inside force should primarily act as the sensor for coordinating attacks with the outside force executing strikes against the PLA. The Space Force and Marine Corps can already assist each other by providing greater access to multidomain sensors. This can be further improved by developing a sensor network as part of the JTF kill webs. A multidomain

sensor network is resilient enough to tolerate the temporary or permanent loss of several sensors and still support the ability of guardians and Marines to gain and maintain custody of targets and assure the JTF's ability to deliver effective kinetic and nonkinetic fires. Having a resilient and redundant sensor network integrated into the JTF's kill webs would improve the JTF's ability to deny PLA efforts at information dominance and blunt PLA operations through well-coordinated kinetic and nonkinetic effects.

Maintaining a low signature will also be critical for survivability, specifically for the inside force. Even if units can maintain a low signature while communicating, sensing, and shooting, they will still need to survive with logistical sustainment and the ability to quickly maneuver to avoid detection. This ability will be necessary for any inside force that employs kinetic or nonkinetic fires. Currently, the Marine Corps identifies logistics as the pacing function for its stand-in forces' operations. Logistics sustainment will require the same level of coordination between the inside and outside forces as is required for conducting strikes. Prepositioned logistics will help, but these supplies cannot last indefinitely. Additionally, it is doubtful that host countries will accept, and the U.S. military will allow, the prepositioning of lethal munitions and possibly nonlethal capabilities.

The Navy is developing small, low-signature craft for local littoral mobility. The Marine Corps is working to develop "resilient logistics webs in a contested environment with multiple options for support, to include distribution networks, and multi-domain delivery methods."<sup>35</sup> Safely maneuvering in the area of responsibility will be critical to the JTF's success. The maneuver force must improve on camouflage, concealment, and deception to help mask logistics movements and ensure that maneuvering forces remain hidden. If an element of the JTF's inside force must fire, maneuver, or be resupplied, it will face a higher risk of being discovered and fired upon by the PLA's A2/AD capabilities. In a protracted war of attrition, the JTF cannot afford to lose every unit that fires on the PLA as the PLA has a large force that can endure greater losses. The JTF package must survive and defeat China by continuously striking the PLA, constantly maneuvering to avoid detection, and logistically sustaining a large force spread out over a vast area.

## Summary

Assembling a JTF package is the next step following the establishment of a JTF structure. Once these organizations are in place, the U.S. military can better rapidly transition from competition with China to crisis or conflict. The JTF package and associated recommendations build on what the JTF structure needs now. In the near future, the Space Force must permanently station personnel and organic capabilities on the first or second island chains where they can best integrate with the other Services that are already present. This will put guardians in a better physical location to be rapidly assigned to a JTF package and rely on the JTF's organic mobility to maneuver with Marines against

the PLA. Assigning ground-based space capabilities to USINDOPACOM will shorten the kill chain and support the Space Force in employing its full range of capabilities to ensure the JTF can help USSPACECOM maintain space superiority.

The U.S. military is funding the research and development of capabilities to counter China's efforts at informatized warfare. As the U.S. military progresses with developing near-term capabilities for the JTF package, it should do so with a single-minded focus on providing the warfighters on the first and second island chains guaranteed access to the JTF's all-domain capabilities to defeat the PLA. JADC2 and other emerging technologies must improve the JTF's ability to remain in the kill webs while maneuvering, executing multidomain fires, and surviving within the PLA's A2/AD environment. Since the PLA can contest the United States in every warfighting domain, a JTF package needs redundant and resilient all-domain capabilities. In particular, JTF units must be able to operate without assured space superiority, but at the same time have the means to ensure the JTF can help the United States and U.S. allies and partners regain space superiority. Preventing China from achieving space superiority in a conflict will hinder China's ability to effectively execute informatized warfare. As critical elements of the JTF package, the Marine Corps and Space Force must be trained and equipped to help the JTF maintain and, if needed, regain space superiority.

## **Conclusion**

Deterring China and preparing the U.S. military to defeat the PLA in a conflict is a wicked problem that the United States is focused on solving. The area of responsibility discussed in this article is a vast geographic area with environmental challenges and limited infrastructure that will make it difficult for both the U.S. military and the PLA. China's aggressive action in the region has helped the United States improve bilateral agreements with regional partners. The U.S. military recently gained access to key locations in the Philippines, which will significantly help preposition logistical supplies for the JTF's inside force. Despite the United States improving relations with regional partners, China still has advantages in the area of responsibility due to its formidable A2/AD capabilities. China is advancing technology that will further support informatized warfare, deny or degrade U.S. space superiority within the area of responsibility, and give senior CCP and PLA leaders the ability to make decisions to rival their U.S. counterparts. China's reliance on information dominance and a command structure that enables senior leaders to make decisions creates a vulnerability that a well-integrated and equipped JTF could exploit.

As critical force providers of the JTF, the Marine Corps and Space Force have unique capabilities that, when integrated, cover the gaps created by their limitations. The Marine Corps is strategically positioned on the first island chain to be the JTF's inside force. The Service has all-domain capabilities, but its space capabilities are limited to localized ground-based jammers. The Space



Force has organic ground- and space-based capabilities to ensure the JTF's access to the space domain. Guardians lack organic mobility and force protection, which the Marines can provide if tasked. The Space Force currently has a limited permanent presence in the USINDOPACOM area of responsibility. For a JTF to have all-domain capabilities supported by all the Services, the assigned Space Force units would have to be rapidly flown into the area of responsibility if they were not permanently stationed or deployed there.

To help the United States rapidly transition from competition with China to crisis or conflict, USINDOPACOM must have a JTF structure in place that can be used to develop a JTF package assigned to a specific mission. For a JTF structure to be in place now, USINDOPACOM must establish clear hierarchies and authorities. The Space Force must identify which personnel and capabilities will be provided to the JTF, and the U.S. military must update its existing Joint space doctrine to include adding a section on maritime and littoral operations. This will improve the integration between the Marine Corps and Space Force at the strategic, operational, and tactical levels so that they can apply their unique capabilities to deter or defeat the PLA. In the near future, the JTF package must draw on Space Force personnel and capabilities already assigned to USINDOPACOM and permanently stationed in the area of responsibility. The U.S. military must advance technology that supports individual JTF units' ability blunt PLA offensive operations by remaining in the kill webs, executing long-range sensing and shooting, and using low signature mobility for maneuver and logistical sustainment. These near future recommendations will allow the JTF package to rapidly deploy a well-integrated Marine Corps and Space Force team that can exploit China's vulnerability and deny its plans for informatized warfare by maneuvering, executing multidomain fires, and surviving inside the PLA's A2/AD capabilities.

Deterring China and defeating the PLA in an area of responsibility in which it has advantages over the U.S. military is not impossible, but it will require a great deal of effort. Maintaining, regaining, and possibly operating without space superiority is something that the modern U.S. military has never had to face with an adversary. Space superiority will be critical to ensuring the JTF can operate in this vast area of responsibility, remain in kill webs, and keep the PRC from successfully executing informatized warfare. The U.S. military must provide the JTF with everything it needs to succeed and survive inside the reach of the PLA's highly sophisticated A2/AD capabilities. As critical components of the JTF, the Marines and guardians must be seamlessly integrated before employment and have organic capabilities that can keep them alive while still constantly attacking the PLA in every domain. Additionally, these capabilities, command relationships, and authorities must be routinely exercised and practiced. The cost of not preparing and equipping the JTF and its Service components for conflict will be the rapid and unacceptable loss of U.S. personnel and capabilities within the region.

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