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MASTER OF MILITARY STUDIES

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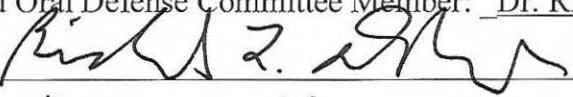
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## Executive Summary

**Title:** The Air Sea Battle Dilemma

**Author:** Lieutenant Commander Ignacio S. Perez, United States Navy

**Thesis:** The US is neither postured nor prepared to counter today's A2/AD threat from China as described in the Air-Sea Battle Concept (now known as the Joint Concept for Access and Maneuver in the Global Commons (JAM-GC)).

**Discussion:** As the United States pivots its focus to the Pacific, China's A2/AD capability cannot be ignored. The A2/AD threat could undermine the US, and her allies, the right to freedom of navigation or prevent the US from honoring their defense treaties and agreements with her allies in the region. Given the new risks and the need to preserve freedom of navigation in the region, the Departments of the Navy and the Air Force developed the Air-Sea Battle (ASB) Concept in 2011. In 2013 the Department of Defense changed the name to the Joint Concept for Access and Maneuver in the Global Commons (JAM-GC) to incorporate the land forces. This paper intends to show that the US Military is not prepared or postured at this time to fight under the ASB/JAM-GC concept.

**Conclusion:** The US is not postured nor prepared today to engage in the A2/AD environment of the East and South China Sea. Unless today's leaders engage our allies and partners in the region to increase the defense of ports and bases overseas, assure them of our commitments, and turn to new, innovative, and "out of the box" thinking, the US will find itself in a region where China is the dominant power and US influence is diminished, if not all together dismissed from the region.

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## The Air-Sea Battle Dilemma

### INTRODUCTION

As the United States pivots its focus to the Pacific, one must acknowledge the growth of the Chinese military and anti-access/area denial (A2/AD) capabilities in the region. China's A2/AD capability could undermine the US, and her allies, the right to freedom of navigation in China's surrounding waters or, in the case of a conflict over Taiwan or contested islands in the South and East China Seas, prevent the US from honoring their defense treaties and agreements with her allies in the region. Given the new risks and the need to preserve freedom of navigation in the region, the departments of the Navy and the Air Force were directed, in 2009, to develop a concept to counter the A2/AD threat. In 2011 they responded with the Air-Sea Battle (ASB) Concept. In 2015 the Defense Department changed the name from ASB to Joint Concept for Access and Maneuver in the Global Commons (JAM-GC) in an attempt to include US land forces. For the purpose of this paper I will continue to refer to this document as ASB, since all the related unclassified research and writings on this topic still refer to it as ASB vice JAM-GC. It is important to note that the ASB Concept/JAM-GC is not a strategy, but rather an important component of the Department of Defense's (DOD) strategic mission to project power across the air, land, sea, space, and cyber domains.<sup>1</sup> At its core ASB calls for an "unprecedented level of joint integration leading to air and naval forces that can launch networked, integrated attacks-in-depth to disrupt, destroy and defeat (D3) an adversary's A2/AD capabilities."<sup>2</sup> The ASB Concept, like many concepts, is great in theory but flawed in practice. The US is neither postured nor prepared to counter today's A2/AD threat from China as described in the ASB Concept.

Since the end of Cold War, China has adopted the Deng Xiaoping strategy of “hiding and biding,” quietly and steadily growing as a regional superpower.<sup>3</sup> Under this strategy, China sought to avoid confrontation, build comprehensive national power and advance incrementally.<sup>4</sup> China’s desire for reunification of Taiwan and ongoing disputes with the Philippines and Vietnam in the South China Sea and with Japan in the East China Sea has gone contrary to that philosophy. Issues with the US regarding its conduct of surveillance and military exercises in areas from the Yellow Sea to the vicinity of Hainan Island, has many strategists believing that war with China is on the horizon.<sup>5</sup>

The “century of humiliation” in China’s history has taught current generations how the lack of a strong military allowed the loss of territory, forced the Qing Dynasty to concede to foreign powers, and eventually led to China being invaded and occupied by Imperial Japan.<sup>6</sup> Because of this, the People’s Republic of China (PRC) has sought to modernize the People’s Liberation Army (PLA) and its technology. The PRC raised military spending by 12.2% and by 10% in 2015 bringing it to a total of \$144.2 billion last year.<sup>7</sup> The PRC has acknowledged that the PLA cannot go all in to a head to head war confrontation with the US and that to do so would be extremely challenging. As such they have increased defense spending, over the last 20 years, primarily for their A2/AD capabilities in coastal areas.

The PLA’s strategy has shifted from defending the continent to defending areas on China’s periphery and maritime force projection. A 2009 RAND study on China’s A2/AD strategy found that “instead of fighting a ‘People’s War’ involving human-wave attacks, the PLA is now preparing to fight a ‘local war under high-technology conditions.’ PLA strategists expect such conflicts to be characterized by limited political objectives and the use of information technology and by being highly mobile, lethal, and resource intensive.”<sup>8</sup> Chinese policy

statements suggest that by 2020 China will complete the mechanization of its armed forces and complete the “full integration of advanced computers and communication systems into all units and service branches.”<sup>9</sup> In effect, the increase of A2/AD capabilities in China is an attempt to buy time for its military to strengthen and modernize in order to challenge the US in the region successfully. When A2/AD is discussed it is often thought of as one capability, when in fact it is two; “anti-access” and “area denial.” Both, if used effectively, are used to defeat an adversary or at least persuade an adversary to not engage. The following will discuss the two, how the PRC intends to employ each, and how the US is affected by each.

## **ANTI-ACCESS**

Anti-access capabilities are defined as ones that slow deployment of friendly forces into a theater, prevent them from operating from certain locations within that theater or cause them to operate over longer distances than they would like.<sup>10</sup> Examples of anti-access measures include attacks on airfields, which could force aircraft to operate from more-remote airfields or could prevent additional forces from being flown into the theater; attacks on seaports, which could prevent additional forces from being brought into the theater through these ports; and attacks on aircraft carriers, which could prevent naval aviation from operating within the theater or force the carriers to withdraw to more-distant locations from which their aircraft would be less effective.<sup>11</sup> The PRC knows that if the US military can arrive in force, the US will almost undoubtedly win in a conventional military campaign. The PLA thus seeks to acquire the capabilities necessary to disrupt or delay US deployment activities or to deny it the use of bases in the area to prevent or deter the United States from acting or possibly buy time to negotiate an end to hostilities amicable to China.

## **AREA DENIAL**

The Joint Operational Access Concept (JOAC) refers to “area denial” as those actions and capabilities, usually of shorter range, designed not to keep an opposing force out, but to limit its freedom of action within the operational area.<sup>12</sup> Examples of area denial measures are airborne and surface launched anti-ship cruise missiles (ASCM) that could be deployed from coast lines or islands to deter an adversary from entering an area for fear of losing shipping; the mining of seaports to deny vessels entering or leaving the port; electronic and cyber warfare that could be used to shut down communications and networks.<sup>13</sup>

PLA shore based and ship based ASCMs are highly sophisticated and pose a high threat to US Navy warships. The PLA plans on deterring the US from entering its waters with the threat of losing lives and Navy shipping. The US high dependence on electronics make it vulnerable to electronic and cyber warfare. The PRC could jam or shut down strategic communications and networks at home or abroad.

## **TYRANNY OF DISTANCE**

The first issue the US must face is the vast amount of space between the US and China. Figure 1 shows the sheer amount of space between both countries. The Pacific Ocean covers about one-third of the earth’s surface, about 65 million square miles, and extends about 9,600 miles. To put that into perspective it is 4,921 miles from Tokyo to Australia and only 2,442 miles from New York to San Francisco.<sup>14</sup> This provides for a big time/distance problem when it comes to moving troops and assets and a huge logistical train.



15 Fig (1) The Pacific from the Arctic to Australia

The Tyranny of Distance means that the US will be required to set up a large and long logistical footprint. Launching attacks against the enemy's logistics system is another key element of China's overall strategy for dealing with the US military that has anti-access implications. Attacks against logistic systems described in PLA writings include blockades, attacking supply depots, and striking at air or sea supply missions.<sup>16</sup>

As Zhan Xuexi, a Chinese strategist, states, the "long supply lines and large [support] structure" of the enemy are "soft targets that are relatively easy to attack...destroying the rear area is an important part of destroying the complete structure"<sup>17</sup> Chinese strategy includes aerial-refueling aircraft, transport ships, and auxiliary shipping as soft targets in the rear area. The PLA and the PLA Navy (PLAN) cannot take on the US head to head and must use surprise to attack bases and logistic trains as stated by Chinese strategist Chen Fengyou:

Therefore, it is difficult for our forces to achieve overall superiority. Such situations will cause us to employ large-scale attacks and possibly suffer large losses with little result. During the Second World War, the Japanese navy attacked the United States' Pearl Harbor. Because the Japanese achieved campaign surprise, they achieved success with very little cost and almost sank the US Pacific Fleet. The experience from wars proves

that achieving surprise reduces losses and achieves a great result. Therefore, it is necessary to comprehensively utilize every measure and work hard to achieve campaign surprise.<sup>18</sup>

Overseas bases are not postured to defend against the current short and medium range ballistic missile threat or air attack from PLA aircraft.

## **FORCE GAPS**

The ASB Concept states that its purpose is to “increase operational advantage across all domains, enhance Service capabilities and mitigate vulnerabilities.”<sup>19</sup> Over the last 15 years, the US Military has been focused on two land wars with operations, technology, manpower, and resources focused in that style of war. The draw down in Afghanistan and Iraq has led to a reduction and consolidation of military spending. Fiscal constraint and aging platforms have reduced the capability of our armed services over these years.

As of January 1, 2016 the United States Navy (USN) has 273 deployable vessels, surface and subsurface combatants. Of those 273 combatants only 30 are amphibious ships and only 27 of those are operational at any given time with only 22 Ships available for deployment. According to the Marine Corps, 38 amphibious ships are required to implement an amphibious assault using two Marine Expeditionary Brigades. Given the fiscal constraints of the times, the USN and USMC have agreed to the minimal inventory goal of 33 ships. The lower number accepts some risk with respect to the arrival of some support elements to the brigades.<sup>20</sup>

This large USN and USMC footprint will require bases throughout the Pacific Ocean for fuel, stores and maintenance. The Navy can mitigate the need to stop for fuel and stores by providing auxiliary shipping throughout the Amphibious Strike Force’s transit but it will still need ports for those auxiliary ships to load the fuel and stores and security for those auxiliary

ships. If those bases/ports are under attack and facilities are not usable, that limits the throughput and the amount of resources needed to conduct an operation.

The idea that the US does not need 38 amphibious ships because a MEB will not be needed for this type of operation is valid. If a conflict with China does arise, the question of where to insert the MEB also arises as well as the necessity for landing a MEB. A MEU is already in the region and can be used as the initial wave. Once that MEU is offloaded the contingency force for that region is gone. To get another MEU in the region to replace the contingency force, requires another Amphibious Readiness Group (ARG). As the amphibious force is postured today, another ARG is not available without losing presence in another area of the world.

These numbers account for only the shipping required to carry forth an amphibious assault force, not taking into account the number of shipping required for escorts, integrated air and missile defense (IAMD), and anti-surface and anti-submarine support. The USN only has four mine counter measure (MCM) vessels forward deployed to Japan, with three in San Diego as the entire AOs MCM fleet. Four MCMs in theater does not provide adequate coverage needed in an area where mines are a major possibility of a threat. These numbers also only account for the USN/USMC contingent of any assault and assault support. The other land component for this plan, the Army, requires heavy reliance on United States Air Force (USAF) air lift.

The USAF has seen the same in reduction of forces. Budget forecasts show the Air Force will see a decline. The overall number of aircraft procured is low and, the average ages of USAF aircraft are reaching high levels, which will force more retirements. The USAF has been able to maintain its air lift capability while shrinking its fleet but as airframes become older and fewer

aircraft are procured, the USAF's capability also shrinks. Fiscal cuts have been hard on all of the services and as one Air Force study states, any further cuts, which are projected, will cut into the bone and will reduce force structure in core mission areas.<sup>21</sup>

Figure (2) below shows the USAF force posture over the last 60 years. The USAF is procuring fewer aircraft over the next decade, with the idea that less high tech aircraft with more capability can cover any gaps. This becomes an issue when tankers and transports are also reduced and the lift capability the USAF provides becomes constrained. Figure (3) will show the evolution of the airlift fleet.

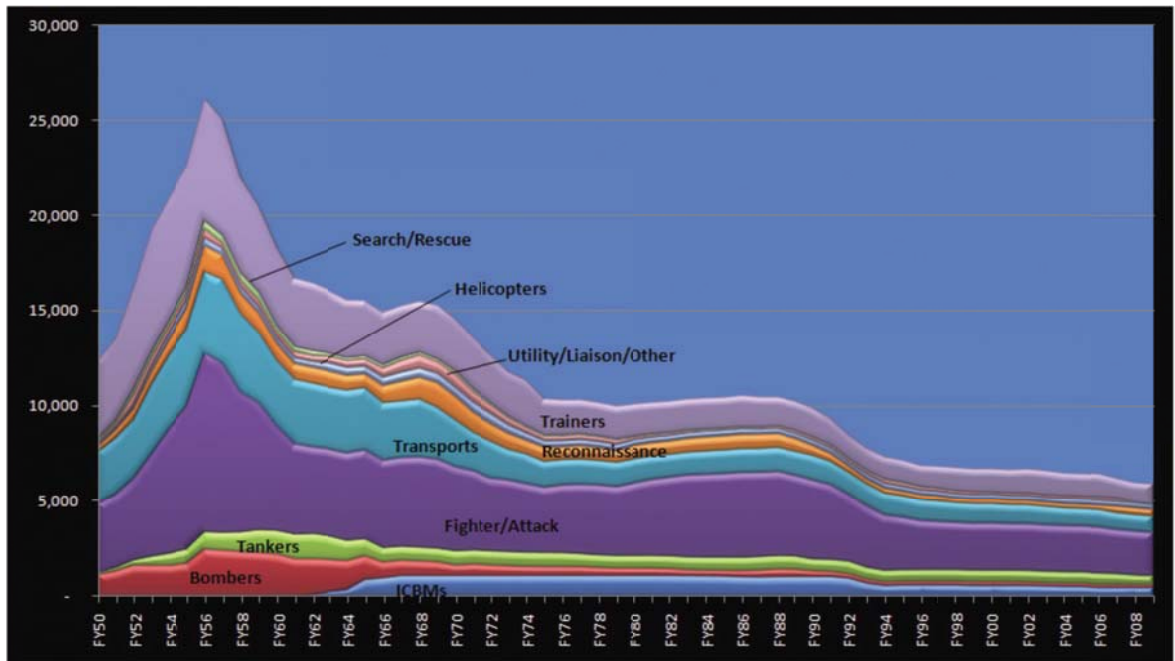


Fig (2) USAF Force Posture Over Six Decades<sup>22</sup>



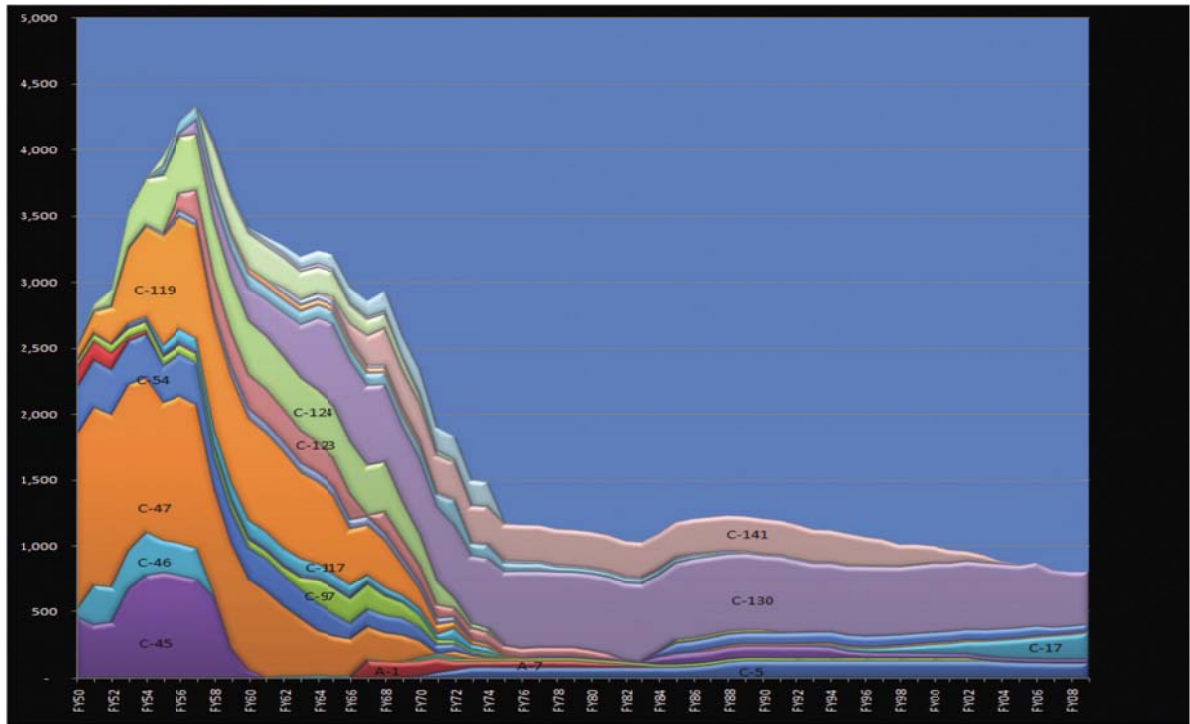


Fig (3) Evolution of USAF Airlift Fleet<sup>23</sup>

In a January 2016 Center for Strategic and International Studies (CSIS) report on the Asia-Pacific rebalance, echoes some of the challenges the USAF faces. The USAF is predominantly known for the force that achieves air superiority for US and allied forces. The USAF faces two major issues with air superiority in this environment: range and basing.

Most tactical aircraft in the US inventory have a short range, requiring constant refueling requirements to operate in the Pacific area. With an increase in A2/AD capabilities, USAF and USN fourth generation fighters are greatly hindered in their ability to operate. The PLA/PLAN's air defenses that range up to 250 NM push the refueling assets, enablers and early air warning assets that are required for air superiority. If the enablers aren't able to operate in the area, the tactical aircraft will not be able to operate in the area. The farther away they are able to operate the harder it will be to establish air superiority and executing offensive air operations.<sup>24</sup>

Because of the Chinese strategy of striking US bases first, basing becomes an issue. Five US bases are currently within range of Chinese land attack missiles. Unless bases, runways and hangars are hardened and protected, these attacks will seriously hinder flight operations. Lower sortie rates will ultimately lead to the inability to generate air power which leads to no air superiority.<sup>25</sup>

With these shortfalls, the US Military has a large gap to cover if it is to ensure Service capabilities are enhanced. The operational advantage is lost if the A2/AD capabilities of the adversary does not allow for the US Military to conduct operations in the region. The largest gap to cover however, is in mitigating the vulnerabilities. If the US is willing to downsize the military and put its confidence on less platforms with a higher capability, the vulnerabilities encountered with the Chinese advanced technology boom must be taken into account and the risk must be assessed.

## **ADVANCED MILITARY TECHNOLOGY**

Success of the United States–led invasion of Iraq during the Gulf War in 1991, has had an impact on Chinese analysts and forced them to reconsider their ability to fight an opponent armed with advanced weaponry. The Gulf War did follow the Chinese view of modern wars as being quick and intense, but the effectiveness with which the US military used airpower and joint operations to defeat the Iraqi army that was, in some cases, armed with Chinese weapons caused concern within the PLA. It was obvious that the PLA was unprepared, in both technology and operational doctrine, to fight and win a similar type of war.<sup>26</sup>

Since then the PRC has stepped up its efforts in upgrading their military hardware and technology. The PLA has seen an advance in logistics and C4I capabilities, the development of

advanced training regiments, the execution of more realistic, complex and large scale military exercises, involving integrated joint operations, and the development and deployment of short and medium range ground, air, and naval weapon systems. They also enjoy a range of intermediate-range ballistic missiles (IRBMs) with sophisticated countermeasures to include the DF-21D anti-ship ballistic missile (ASBM), surface-to-air missiles (SAM) that range well past China's shoreline, and long range standoff, anti-ship cruise missiles and anti-carrier torpedoes.

The Air Force has fourth generation fighters/interceptors, as well as a fifth generation stealth fighter with sophisticated air to air and anti-ship missiles. The PLAN has acquired one aircraft carrier from Russia and has completed refurbishment and are currently working on two domestically produced medium capable aircraft carriers. They currently have a large and growing number of conventional attack submarines and surface combatants, and a growing amphibious capability to include improvements on inserting special operations and reconnaissance forces<sup>27</sup>

The USN has built its force around the aircraft carrier since the days of Corral Sea in WWII. Carrier Strike Groups (CSGs) have sailed into areas as a show of force to quell any issue that might be brewing in a region. CSGs pose significant problems for the PLAN but also play a major role in US efforts to maintain air superiority over Taiwan and to attack targets on the mainland. Chinese strategists have taken notice and have stated that the United States relies on aircraft carriers for 80 percent of its airpower projection.<sup>28</sup> Because of this, the PLA has identified key weaknesses to exploit:

1. Because of its large size, a carrier strike group is difficult to conceal and detectable by radar, infrared, and sonar. In addition, because of its large size, an aircraft carrier is easier to hit than other types of vessels.

2. Air operations from an aircraft carrier can be affected by weather.
3. A carrier strike group consumes an immense amount of supplies.
4. Carrier strike groups have poor anti-submarine and anti-mine capabilities.
5. The hulls and flight decks of aircraft carriers are susceptible to damage by armor-piercing munitions.
6. While aircraft carriers do carry a large number of aircraft, only a few of them are actually devoted to air defense, around 20. In addition, aircraft launching is sometimes restricted by maneuvers. Thus, it would be possible to overwhelm an aircraft carrier's air defense during certain times.<sup>29</sup>

Based on these weaknesses, the PLA has developed several new weapons systems.

China's Second Artillery Force possesses at least 1,200 short-range ballistic missiles (SRBMs) in its inventory. China is increasing the lethality of its conventional missile force by fielding a new ballistic missile, the CSS-11 (DF-16), which possesses a range of 800-1,000 km. The CSS-11, coupled with the already deployed conventional variant of the CSS-5 (DF-21) medium-range ballistic missile (MRBM), will improve China's ability to strike not only Taiwan, but other regional targets. The CSS-5 Mod 5 (DF-21D) ASBM, dubbed the "carrier killer," with a range of 1,500 km and maneuverable warhead, gives the PLA the capability to attack ships in the western Pacific Ocean.<sup>30</sup> If the US thinks they can operate a CSG off the coast of China, or within the first island chain, without risk of ASCMs or ASBMs, they are seriously mistaken. Figure 2, shows the range of the PLAs current conventional strike capability reaching out to the second island chain.

Over the past 15 years, China's naval modernization program has produced a more technologically advanced and flexible force. The PLA Navy now possesses more than 300

surface ships, submarines, amphibious ships, and patrol craft making it the largest naval force in the Asian Pacific. The PLAN is building larger, multi-mission ships, equipped with advanced anti-ship, anti-air, and anti-submarine weapons and sensors. Whereas “near seas” defense remains the PLA Navy’s primary focus, China’s gradual shift to the “far seas” has made its Navy support operational tasks outside the first island chain with multi-mission, long-range, sustainable naval platforms with robust self-defense capabilities.

Over the next decade, China plans on constructing a new Type 095 nuclear powered, guided-missile attack submarine (SSBN), which not only would improve the PLA Navy’s anti-surface warfare (ASUW) capability, but might also provide it with a more clandestine, land-attack option.<sup>31</sup> By 2020, the PLAN’s submarine force will likely grow from 60 to between 69 and 78 submarines. In addition to the twelve KILO SS acquired from Russia, China has built 13 SONG SS and 13 YUAN air independent-powered attack submarines with a total of 20 YUAN SSP planned for production.<sup>32</sup> China continues to produce the JIN SSBN (Type 094) with associated CSS-NX-14 (JL-2) SLBM that has an estimated range of 7,400 km. According to a 2015 annual report to Congress from the Secretary of Defense, this capability represents China’s first credible, sea-based nuclear deterrent, and will add five more to their inventory by 2020.<sup>33</sup>

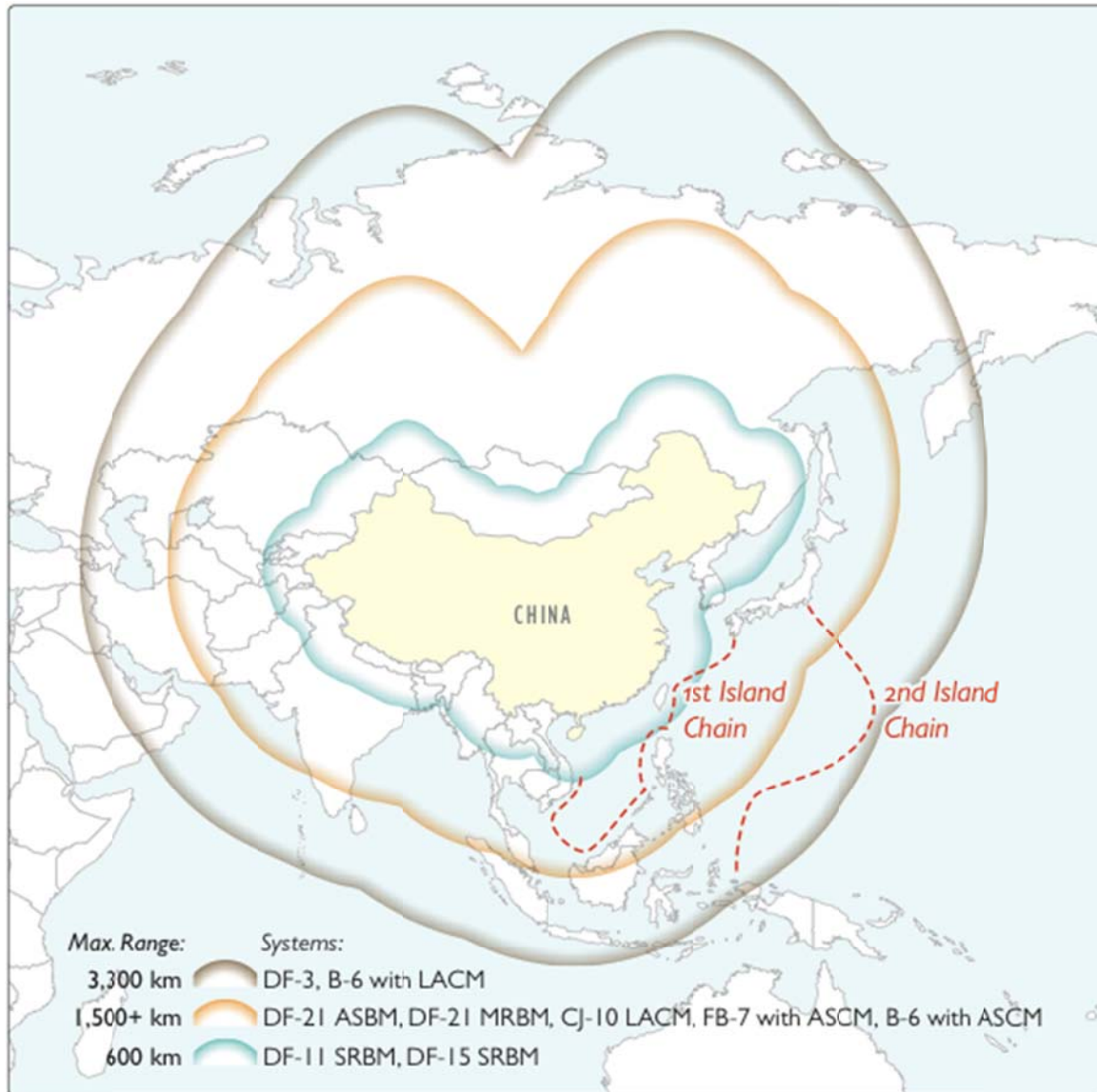


Fig (4) China's Conventional Strike Capability<sup>34</sup>

The PLAN continues to emphasize ASUW as its primary focus, including modernizing its advanced ASCMs and associated over-the-horizon targeting (OTH-T) systems. New loadout plans have PLAN guided missile destroyers deploying with the YJ-18 (290nm), and eight of China's twelve KILO SS are now equipped with the SS-N-27 Sizzler ASCM (120nm).<sup>35</sup> The PLAN recognizes that long-range ASCMs require a robust, OTH-T capability, and China has invested heavily in "reconnaissance, surveillance, command, control, and communications

systems at the strategic, campaign, and tactical levels to provide high-fidelity targeting information to surface and subsurface launch platforms.”<sup>36</sup>

The PLA Air Force (PLAAF) has also seen advancements in technology. The PLAAF is the largest air force in Asia and is rapidly closing the gap with Western air forces “across a broad spectrum of capabilities from aircraft, C2, to jammers, to electronic warfare (EW), to datalinks.”<sup>37</sup> The PLAAF continues to field increasingly modern aircraft and will likely become a majority fourth generation force within the next several years. They currently have two stealth programs, the J-20, and the J-31, both able to conduct OTH-T and carry long rang ASCMs.

When the Japanese government bought three of the Senkaku Islands from a private landowner in September 2012, China increased its air and naval activity and, in November 2013, declared an Air Defense Identification Zone (ADIZ) over most of the East China Sea.<sup>38</sup> The US’ perceived acceptance of buildup and militarization of the South China Sea creates a greater danger to the US Fleet and Air Force with respect to China’s A2/AD capability. The longer China is allowed to place airstrips, sea ports, SAM and coastal defense cruise missile (CDCM) sites on reclaimed and constructed islands, the harder it will be for US forces to operate in the region.

The Chinese have also increased their spending when it comes to the cyber and electronic warfare (EW) domains. China is focusing on counter-space, offensive cyber operations, and EW capabilities meant to deny adversaries the advantages of modern, information warfare.<sup>39</sup> China’s investments in advanced EW systems, counter-space weapons, and cyberspace operations, combined with more traditional forms of control historically associated with the PLA and the Communist Party of China (CPC) systems, such as propaganda and “denial through opacity”,

reflect the emphasis and priority China's leaders place on building capability for information advantage.<sup>40</sup>

The PLA continues to strengthen its military space capabilities, to include advances with the BEIDOU navigation satellite system and space surveillance capabilities that can monitor objects across the globe and space. China utilizes space systems to establish a real-time and accurate surveillance, reconnaissance, early warning, and to enhance C2 in joint operations. PLA strategists regard the ability to use space based systems and deny adversaries access to the same as central to enabling modern, "informationized" warfare. This would serve a key role in enabling actions that counter third party interventions.<sup>41</sup>

The inability of US forces to operate in the region will erode the faith and trust of US allies, such as the Philippines and Taiwan, in that the U.S will not be able or willing to honor their treaties of defending them against a threat. The loss of Taiwan would allow China to use it as a forward staging base to launch a further offensives or increase their A2AD range and capability. The incapacity to operate in the region and erosion of confidence of our allies, could push our allies to form greater alliances with China, shift the U.S as the dominant maritime power in the western pacific.

## **DEPENDENCE ON THE JOINT FORCE**

The ASB Concept requires a "joint force that possesses habitual relationships, interoperable and complementary cross-domain capabilities, and realistic, shared training, while retaining the flexibility to develop new TTPs on the fly. Such forces will provide the strategic deterrence, assurance and stabilizing effects of a 'force in being' and will also be operationally useful at the outset of hostilities, without delays for buildups and extensive mission rehearsal.



Moreover, they will ensure that a joint force commander has a full range of options when facing an adversary with an A2/AD capability.”<sup>42</sup>

One of the challenges in the ASB concept is having a joint force that can be fully integrated. Historically, when the US has gone to war, it has not done so in the true spirit of “jointness”. The US Navy will control its own battle space and avenues to shore, the Army and the Marine Corps both own respective sectors of the battle space and delineate specific boundaries in which neither may cross, and the Air Force will be given its own airspace in which they may dominate separate from naval airspace. On some occasions joint air, or purple air, may support other units if extra sorties are available or if tasked, but the ability of purple air to support in this scenario will be largely restricted when air bases in the area are not operable due to missile strikes.

If we are going to truly fight a joint war, we must change our concept of joint. As the JOAC states, the future joint forces must leverage cross-domain synergy. It goes on to describe cross-domain synergy as “the complementary vice (sic) merely additive employment of capabilities in different domains such that each enhances the effectiveness and compensates for the vulnerabilities of the others.”<sup>43</sup> The ASB Concept falls in step with the JOAC and places an emphasis on this joint integration. The ASB’s vision requires cross domain operations across all the warfighting domains to conduct networked, integrated, and attack-in-depth (NIA) operations.<sup>44</sup>

The force needed for this will need to be a combined force. Allies and partners in and out of the region must come together to provide the maximum operational advantage. This coalition will need to succeed in the global commons (air, sea, land, space and cyberspace.) ASB relies heavily on the ability for the combined joint force to integrate across all domains without being

wrapped into country or service specific procedures, tactics or weapon systems. The reliance on the joint force requires a robust command and control. The more robust the network the more vulnerable it becomes.

## **STEPS TO TAKE**

First step to any problem is to recognize that there is a problem. Once the problem is recognized, one must find a solution and finally implement the solution. In the South Pacific the US must have a strategic goal. An overarching strategy for the region must be reached and in turn a military strategy can be reached. With a military strategy, military planning can be conducted with all possible options being considered. Strategy in turn will drive the force structure, training and procurement planning that will support the operation. If the US military is going to be successful in any conflict with China, a strategy must be defined first.

Chinese strategy states that in the event of a conflict with the US, the PRC will attack US bases overseas. To deter China from using this option the US must ensure those bases are able to defend against ballistic missile threats. Sophisticated air defense and ballistic missile defense (BMD) systems are needed at each base and critical facilities. The US should not be solely responsible for defense, but must engage the host nations to agree on a commitment to support US forces and increase their own defenses. Increased defenses combined with integrated defense exercises with host nations, such as Japan, South Korea, and even the Philippines, could convince the Chinese that the risks of attacking these nations in a pre-emptive strike outweigh the benefits.

The US would need to provide a sensible amount of resources to these bases. Runways and hangars need to be strengthened to ensure damage to them would be lessened. Teams that

are able to repair these airstrips and port facilities need to be manned, trained, and equipped properly. The idea being that the facilities can be repaired and last long enough to outlast the supply of ballistic missiles in the Chinese inventory.

Another avenue is to look into alternative and/or expeditionary staging and support airfields and seaports. In the event overseas bases in Japan and South Korea are destroyed or severely damaged, US forces will still need the capability to deploy to the region and to the objective. The size of the units deploying will affect the size of the points of embarkation and debarkation. Expeditionary airfields and seaports are ideal and will require little to no diplomatic pressure over that of acquiring alternative bases in other countries in the region. An expeditionary airfield or port that can be quickly assembled and then dis-assembled will complicate Chinese targeting and increase the likelihood of success in a conflict.

In the event of a conflict over Taiwan, the Chinese would deploy submarines to patrol and deny access to the region. The mining of straits and harbors would also be conducted by the PLAN. The USN has admitted that the amount of mine clearing assets available in its inventory is woefully inadequate for a major conflict in a mine threat area. The US needs to increase capability, training, and proficiency in mine warfare (MIW) and anti-submarine warfare (ASW) if it plans on being successful in the region.

A different way of solving this wicked problem of deterring or defeating the Chinese in the region is what T. X. Hammes, a Senior Research Fellow at National Defense University, proposes as Offshore Control. Offshore Control is a proposed military strategy that is “designed to slow a crisis down and reduce escalatory pressure in a crisis and potential ensuing conflict.”<sup>45</sup> His strategy hinges on five key assumptions: China starts the conflict; There is a high probability that a conflict with China would be a long war; Any major conflict between the United States

and China would result in massive damage to the global economy; The United States does not understand China's nuclear decision process, and; In space or cyber domains, a first strike provides major advantages.<sup>46</sup>

By conducting a blockade on China with our current available means, his concept takes advantage of the D3 concept. It establishes an area that *denies* China the use of the sea inside the first island chain by deploying submarines and mines. This area would be considered a maritime exclusion zone threatening to sink any ships in the zone, crippling China's trade and economy. It *defends* the sea and air space of the first island chain by focusing on allies and their territories in the region. This depends on the ally's capability of defending their own territory. He intends to *dominate* the air and maritime space outside the island chain, where most of Chinese assets can't reach, by creating a distant blockade. Any route in which China can use to send its exports would be tightly controlled by the US and her allies including the Straits of Malacca and the Straights of Magellan.<sup>47</sup>

For this strategy to work, Hammes argues that in peacetime the world must see the US providing proper resources and training the required forces to effect this strategy during war. He states that it can be used as a strategy during peacetime by setting the framework with allies and partners with the understanding that they are responsible for their own defense and not for the advance of any US strategy:

In contrast to Air-Sea Battle, the United States can demonstrate Offshore Control's feasibility in peacetime exercises. Partner states will only be asked to participate in the protection of their own sea and air space. Any nation is free to declare neutrality. Offshore Control focuses resources on air and sea defense of allies rather than investing heavily in defeating China's increasingly capable antiaccess/area-denial network.

Such an approach has two benefits. First, it is politically more acceptable to most nations if they train to defend only their own territory. Second, by making it clear that their participation is not a requirement for a successful U.S. strategy, it takes away the Chinese

option of “attacking the enemy’s strategy” by pressuring regional states to refuse U.S. basing rights.<sup>48</sup>

The Offshore Control strategy seeks to end any conflict with China on US terms through economic exhaustion without damage to mainland China’s infrastructure or the escalation of the conflict. He argues against the concept of decisive victory which is “fraught with risks, if not entirely obsolete” against a nation with a major nuclear arsenal.<sup>49</sup>

Hammes’ strategy still falls into some of the same problems and issues as ASB with capabilities and resources and relies heavily on allied and partner support contrary to what Hammes seems to allude to. It has advantages in that it introduces the idea of a blockade, taking the Chinese strategy of a quick war and prolonging it, incurring a higher cost on the Chinese. A disadvantage is that it relies heavily on partnerships and allies in the region. Without them defending their own air and sea lanes, Hammes’ Offshore Control becomes harder. If their bases are not available the ability to conduct blockades become complicated. Although this concept has some kinks in its armor, it is used as an example of how the US needs to think differently on how to approach A2/AD in the region. The US should put more resources into the capabilities tied into a D3 strategy and avoid the A2/AD problem altogether. In any case, the threat needs to be addressed and should be a focus of effort for the US.

## **Conclusion**

Countering today’s A2/AD threat should be in the forefront of our civilian and military leaders. To successfully counter this threat, the US government and military must acknowledge our short comings and prevent us from falling into the pitfall of “victory disease”, much like the Japanese did after the success of the Russo-Japanese war and of the early campaigns of the Pacific. The Imperial Japanese Navy (IJN) fell into the arrogance of past victories that gave

them false assuredness of victory against the American fleet during the Battle of Midway. All four IJN aircraft carriers in the battle were sunk, 248 aircraft lost, and over 3,000 men lost their lives.<sup>50</sup> The IJN was never able to recuperate from the loss of four carriers and the loss of their pilots. “Victory disease” led the IJN to a disastrous halt in its advance in the Pacific and turned the tide for the Allies.

The US military confidence is toeing the fine line of arrogance. As mentioned before, the days of sailing in a CSG to deter and coerce a belligerent are over when the belligerent has sophisticated A2/AD capabilities. The Air-Sea Battle Concept and the Joint Operational Access Concept are great starting points but we must take it from where they left off and make it real and achievable.

The US is not postured nor prepared today to engage in the A2/AD environment of the East and South China Sea. Unless today’s leaders engage our allies and partners in the region to increase the defense of ports and bases overseas, assure them of our commitments, and turn to new, innovative, and “out of the box” thinking, the US will find itself in a region where China is the dominant power and US influence is diminished, if not all together dismissed from the region.

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