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MASTER OF MILITARY STUDIES

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**TITLE:** Any Clime and Place: How the United States Marine Corps Will Evolve to Meet the Challenges from Modern Threats to the Expeditionary Environment

SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF MILITARY STUDIES

**AUTHOR:** Major Christopher Forsythe

AY 2017-18

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## Preface

My original thesis was the US air and missile defense capabilities of amphibious forces tasked with forcible entry operations is incapable of providing the required defensive measures to project power ashore. After conducting research and interviews with Department of Navy personnel at the classified level, I realized that this thesis statement can't address the topic without classified material. I also realized that I needed to conduct more research, specifically on the evolving role of the Marine Air-Ground Task Force (MAGTF) in Expeditionary Advanced Base Operations (EABO). This led to the formulation of my new thesis which is, in order to counter the threats and mitigate the inherent vulnerabilities of amphibious operations in a contested environment, the Navy Marine Corps team must employ a combination of EABO and sea-based amphibious forces to maximize the effectiveness of maneuver warfare doctrine against a determined enemy.

Due to time constraints this first draft did not have the breadth and depth of research that I plan to develop through subsequent drafts. Some of these ideas such as EABO are conceptual in nature however, they are receiving a lot of attention from Navy and Marine Corps leadership and are now included in the paper. After talking to some of the sources listed below I began to realize that it wasn't about making US air and missile defense better, it was about giving the enemy less options.

When concepts like EABO are coupled with lethal systems in and on sea any modern threat will quickly be forced to make hard decisions that could mean defeat. At no time am I trying to put down the current US capabilities, after all we are the only nation that can project power in the way we do. Instead I just want to offer a historical solution, with new concepts to an old problem.

## Executive Summary

**Title:** Any Climb and Place: How the United States Marine Corps Will Evolve to Meet the Challenges of the Modern Threats to Expeditionary Operations.

**Author:** Major Christopher Forsythe, United States Marine Corps

**Thesis:** In order to counter the threats and mitigate the inherent vulnerabilities of amphibious operations in a contested environment, the Navy Marine Corps team must employ a combination of EABO and sea-based amphibious forces to maximize the effectiveness of maneuver warfare doctrine against a determined enemy.

**Discussion:** After over a decade of continuous operations in Iraq and Afghanistan the US military has found itself in a state of transition. With focus shifting from counter-insurgency to major combat operations, US forces will have to operate in high threat environment against an enemy that aims to exploit all possible vulnerabilities to gain and maintain an advantage. Modern threats such as Russia, China, and North Korea have put a great deal of effort in to countering US capabilities and denying them the ability to project power through amphibious forcible entry operations. However, this is not a new problem, the United States has faced this type of threat before in the Pacific Theater of World War II (WWII). In places like Guadalcanal the US learned valuable lessons that are still applicable today such as, the use of sea and land-based forces to deny the enemy key terrain while projecting power ashore. Today the US Navy and Marine Corps are calling this concept Expeditionary Advanced Base Operations (EABO) and although the concept can trace its roots back to WWII, the modern threat environment has changed. Weapons systems now have greater accuracy and range than ever before, making EABO as well as, surface ships vulnerable well beyond an amphibious objective area. This paper is not about the need for more amphibious shipping, or the viability of amphibious forcible entry operations in the modern expeditionary environment. Those arguments have already been made and as of now there no plans to rapidly build up amphibious shipping or abandon amphibious forcible entry operations as a US military capability. Instead this paper offers options for sea and land-based forces using EABO and amphibious shipping to maintain forcible entry capabilities and continue to maneuver modern threats in the expeditionary environment.

**Conclusion:** EABO is a new name for an old concept, but the United States must explore options on how to best employ EABO in a modern contested environment. These options should include a combination of sea and land-based forces forward deployed where they can best project power ashore.

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## **Introduction**

Amphibious operations, or the projection of forces from the sea to land is one of the most complex actions a military force can utilize to achieve an objective. Amphibious operations can be conducted across the Range of Military Operations (ROMO).<sup>1</sup> Or in other words, they can be largely administrative in nature or high intensity, where the landing force faces a sizeable enemy attempting to oppose their landing ashore. Amphibious operations that are opposed by a determined enemy or “forcible entry,” operations come with obvious challenges and require integrated planning by both the naval forces as well as, the landing forces before they are attempted.<sup>2</sup> The British historian Captain B.H. Liddell Hart was quoted as saying “A landing on a foreign coast in the face of hostile troops has always been one of the most difficult operations of war.”<sup>3</sup> Most would agree that the landing forces accept a high degree of risk during forcible entry operations, however one must also consider how those forces are getting ashore, how vulnerable are the ships they came from, and what types of threats they might face well beyond their immediate objective.

These considerations and a number of others make the defense of amphibious forces just as, if not more complex than the movement from ship to shore during a forcible entry operation. Unlike a land operation amphibious forces must defend against threats from the land, air, surface, sub-surface, and even space if they want to be successful in projecting power ashore. Most consider the landings at Inchon during the Korean War in 1950, to be the last contested forcible entry operation, and although the United States military has maintained this capability it has not been put to use in over half of a century. Furthermore, the recent conflicts following the attacks on September 11, 2001 were focused more on Counter Insurgency (COIN) operations and did not necessitate amphibious operations in a contested environment.

The current amphibious shipping in the United States military utilizes several organic capabilities in the defense of their forces. These capabilities include short-range 20mm Close in Weapons System (CIWS), short-range Infrared (IR) seeking missiles, medium-range radar guided missiles, and fixed wing fighter/attack aircraft. This may seem like a robust defense however, many of these systems are antiquated and are easily mitigated by more modern threat weapons systems. Also, with the exception of organic fixed wing aircraft these are all short-range systems giving less time for crews to react to the threat and almost guaranteeing that they would sustain damage even if the incoming missile(s) are intercepted. Furthermore, none of these systems are able to counter threats from ballistic missiles, submarines, or mines. In order to provide an effective defense against those threats amphibious forces must rely on other assets such as submarines, counter-mine shipping, and perhaps most importantly guided missile destroyers. Threats such as Russia, China, North Korea, Iran, and violent extremist groups highlighted by the Chairman of the Joint Chiefs of Staff as the four plus one model are actively seeking ways to challenge the defense of our amphibious forces and prevent them from carrying out forcible entry operations.



**Figure 1. Mk 15 Close-In Weapon System.** *Weapons: Naval.* “Guns. United States,” June 5, 2017, Jane’s Information Group

In 1985 China’s People’s Liberation Army (PLA) began to shift their military strategy and started to employ an “active defense.” This included the ability to “oppose invasion, protect sovereignty, or to uphold justice and dispel threats.”<sup>4</sup> With this new strategy also came a rapid growth in technology which included the DF-21D Anti-Ship Ballistic Missile (ASBM) or “Carrier Killer,” and the production of their own aircraft carrier. These are capabilities that

directly challenge the abilities of amphibious forces to conduct forcible entry operations.

Additionally, since the end of the Cold War, Russia has dramatically reduced the number of their conventional forces, yet actively pursued Coastal Defense Cruise Missile (CDCM) technology such as the K-300 which is designed to hit targets over two hundred miles away.

Mine warfare is considered by many as one of the cheapest yet most effective ways to counter amphibious forces. During the 1991 Gulf War a single \$25,000 Italian-made mine badly damaged a \$1

Billion destroyer.<sup>5</sup> According to some estimates North Korea has over 50,000 sea

mines which could present a number of problems for a forcible entry operation on the Korean peninsula.<sup>6</sup> These are just a few examples of the modern threats amphibious forces could face in a contested environment.

Although the technology has changed many of these threats have been encountered in previous amphibious operations. During the campaign on Guadalcanal known as Operation Watchtower, Allied forces faced continuous naval surface fire from the Imperial Japanese Navy (IJN). While out at sea the US Navy lost the aircraft carriers *Wasp* and *Hornet* to a Japanese



**Figure 3. HMS Atlantic after Exocet strike.** Clapp, Michael and Southby-Tailyour, Ewen. *Amphibious Assault Falklands The Battle of San Carlos Water.* Barnsley UK: Penn and Sword Books, 2007

submarine and continued to endure heavy losses over the course of the six-month campaign. Similarly, during Operation Corporate or the British campaign to retake the Falkland Islands from Argentine

forces, the British task force lost nearly all of their rotary wing aviation when the HMS *Atlantic*



**Figure 2. DF-21 ASBM.** *Janes Strategic Weapon Systems.* "Offensive Weapons. China," October 20, 2017, Jane's Information Group

*Conveyor* was sunk by an Argentine Exocet anti-ship missile. This loss had a profound impact on the landing force and changed the entire operation once ashore.<sup>7</sup>

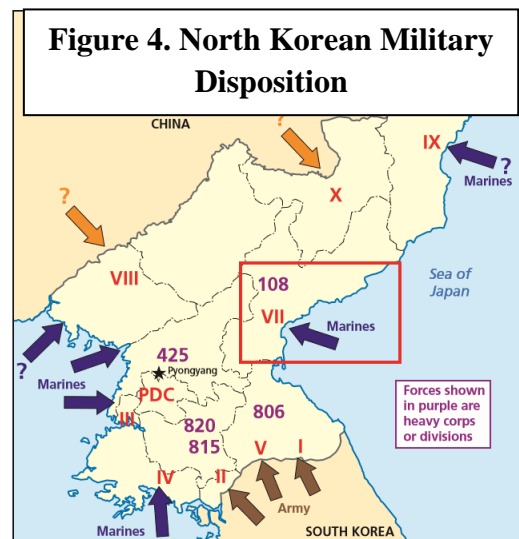
During the Cold War in 1989 the US Marine Corps conducted an analysis of the vulnerabilities associated with the different sized Marine Air-Ground Task Forces (MAGTFs) during low, mid, and high intensity amphibious operations. The analysis highlighted vulnerabilities in Airborne Early Warning (AEW); Intelligence Surveillance and Reconnaissance (ISR), Air Defense, and interoperability of organic systems.<sup>8</sup> Some of these vulnerabilities have been corrected however, a number of them such as the lack of AEW and air defense still exist and require a great deal of support from the US Navy or other Joint partners to mitigate the risk. Finally, the concentration of forces required to conduct an amphibious forcible entry operation presents a valuable target for the enemy, forcing the amphibious force to accept a high degree of risk. Considering the modern threats and inherent vulnerabilities of amphibious operations in a contested environment, the MAGTF has begun to evolve in order to maintain its expeditionary capabilities.

In September 2016, the Marine Corps released the *Marine Corps Operating Concept* (MOC). The MOC describes the need to evolve the MAGTF and integrate with the Navy in order to fight and win from the sea.<sup>9</sup> The MOC goes on to describe a number of concepts that challenge our enemies while maintaining the effectiveness of the MAGTF. One of these concepts is the Expeditionary Advanced Base Operations (EABO). The establishment of EABO will give the MAGTF the ability to deny the enemy key terrain while still using the maneuver space of the sea with embarked forces aboard shipping.<sup>10</sup> The use of EABO gives the MAGTF an ability to deny key terrain from potential enemy forces and provides a foot hold for forces in the area of operation. Also, an established EAB could provide the MAGTF with the ability to

project power through aviation, logistics, and even surface fire support. Furthermore, the utilization of EABO in conjunction with embarked amphibious forces could present a potential enemy with a targeting dilemma that could aid in the success of Joint Forcible Entry Operations (JFEO). The role of the Navy and Marine Corps team in a Joint Forcible Entry Operation (JFEO) has evolved beyond the traditional amphibious assault. In order to counter the threats and mitigate the inherent vulnerabilities of amphibious operations in a contested environment, the Navy Marine Corps team must employ a combination of EABO and sea-based amphibious forces to maximize the effectiveness of maneuver warfare doctrine against a determined enemy.

### **The Modern Threat Environment**

With the end of large scale operations in Iraq and Afghanistan the Marine Corps has shifted its focus from the Middle East to the Pacific. The vast area which makes up the Pacific Command (PACOM) Area of Responsibility (AOR) poses unique challenges to US forces and interests in the region. This coupled with two of the threats mentioned in the four plus one model exposes many of the aforementioned vulnerabilities of amphibious forces in a contested environment. Both North Korea and China have vital interests in the PACOM AOR which means there is a requirement for the constant presence of US forces in the region.



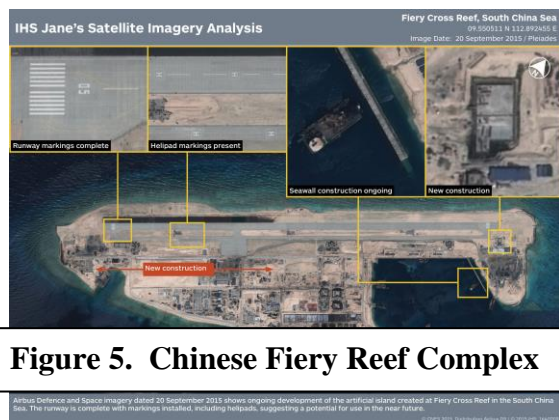
SOURCE: Marine Corps Intelligence Activity, *North Korea Country Handbook*, MCIA-2630-NK-016-97, May 1997, p. 51.  
RAND RR331-6.7

In 2015 Jane's reported that the North Korean Army had over one million personnel with some three thousand tanks, and an unknown number of artillery pieces aimed at South Korea.<sup>11</sup>

The first mission of these forces is to protect North Korea from foreign aggression while the second is the reunification of the Korean peninsula.<sup>12</sup> The sheer number of the conventional forces would be overwhelming to any forcible entry operation. However, the threat does not end with this vast number of conventional forces; in October of 2006 North Korea successfully detonated a low yield nuclear weapon. By 2017 North Korea had claimed to have successfully detonated a hydrogen bomb that was specifically designed to be used by an Intercontinental Ballistic Missile (ICBM) delivery system. With the presence of Weapons of Mass Destruction (WMD) and overwhelming conventional forces many planners are divided about the overall effectiveness of an amphibious force in this high intensity of an operation. Any massing of forces in an Amphibious Objective Area (AOA) could be targeted by WMD or conventional fire support while pre-positioned forces in the South face the same problem.

There are several ways to look at this problem, although perhaps it is best to start with vulnerabilities of North Korean Forces. Although they are vast in size and determined as a military force, the North Korean military is significantly behind South Korea and the United States in terms of modern technology. Much of their equipment is antiquated from the Cold War and lacks Precision Guided Munition (PGM) capability that would be required to target a highly distributed and mobile force. However, this is not necessarily the case with China.

Beginning in the 1980s, the People's Liberation Army (PLA) has taken a comprehensive and aggressive approach to modernize its forces.<sup>13</sup> This included a shift from largely defensive



**Figure 5. Chinese Fiery Reef Complex**

doctrine to a more joint expeditionary doctrine focused on securing China's regional and global interests abroad.<sup>14</sup> This shift in focus was accompanied by a high degree of secrecy about their intentions and what was the desired end state of the Chinese government.<sup>15</sup> This lack of

transparency coupled with provocative actions such as the construction of artificial islands in the South China Sea have many in the US military guessing about what might come next. Although, the real question is what the US military will do if it is engaged in an armed conflict with China. The PLA, Peoples Liberation Army Air Force (PLAAF), and Peoples Liberation Army Navy (PLAN) are true peer competitors of the US military. These forces have the ability to target and potentially destroy amphibious shipping with weapons such as the DF-21D from thousands of miles away. In addition, their Air Force and Naval Air Forces are well trained and operate with a doctrine of overwhelming attack through combined arms against enemy forces.<sup>16</sup> A doctrine that is strikingly similar to that of our own. The PACOM AOR has the potential to be one of the most contested environments on the globe which means the Navy Marine Corps team must evolve beyond the traditional doctrine of an amphibious assault during a forcible entry operation and present threats such as China with a dilemma that exploits their critical vulnerabilities. In other words, amphibious forces of the United States military may need to revisit history in order to evolve for the future. This means they must reexamine the fact that large scale amphibious operation requires training and expertise that the United States has not put a lot of effort into for

some time. Many of these same lessons were learned by the United Kingdom in a trial by fire during the Falklands Campaign.

On 2 April, 1982 Argentinian forces invaded the British territory of the Falkland



Islands in the South Atlantic. The Falkland Islands are over five thousand miles away from the United Kingdom which meant British forces were faced with tyranny of distance that had not been seen since World War II. The British were not prepared for the operation that followed, as they had grown increasingly reliant on the US Navy and had recently retired the last of their big deck aircraft carriers. Just days later some 127 British ships began the long trip to the South Atlantic.

Simultaneously the Royal Air Force (RAF) set up

**Figure 6. British Movement to South Atlantic.** Clapp, Michael and Southby-Tailyour, Ewen. *Amphibious Assault Falklands The Battle of San Carlos Water.* Barnsley UK: Penn and Sword Books, 2007

an air base on South Ascension Island in the mid-Atlantic over two-thousand miles away from

the Falkland Islands.<sup>17</sup> Ascension Island served two purposes; the first was a base that long range Vulcan strategic bombers could strike targets from and the second was an Intermediate Staging Base (ISB) that the British amphibious forces could use to make final preparations for their eventual landings. In May the British launched long-range strikes with their Vulcan bombers from Ascension Island and later that month British amphibious forces landed in San Carlos bay on the Falkland Islands. The landings were almost immediately attacked by

Argentinian Air Forces because the British had never established local air superiority.<sup>18</sup> Due to bombing and Exocet missile strikes British fighter aircraft remained onboard the aircraft carriers with the primary mission of protecting the fleet. This limited their ability to support ground operations and aid in the establishment of local air superiority in the Amphibious Objective Area (AOA). Had the British had the ability to establish another ISB closer to the objective area or even phased some of their aviation assets ashore they may have established local air and maritime superiority before the enemy had the ability to sink their ships or bomb their landing force. Ultimately Operation Corporate was a success and the Falkland Islands were placed back under British control, although there were a lot of lessons that came out of this campaign that played a major role in how the United States planned to use amphibious forces during the Cold War and the conflicts that followed.

### **The Requirement of Local Air and Maritime Superiority**

During the cold war the United States planned for a number of contingencies that involved amphibious forcible entry operations. Many of these scenarios involved high-intensity operations in direct conflict with forces from the Soviet Union and required a land based staging area in order to project power ashore.<sup>19</sup> The idea was that although MAGTF may come from the sea, there was not enough logistics, fires, and maneuver forces to sustain operations against the Soviets without some sort of land base. These land bases most of which were located in Scandinavia would play a vital role and, in some cases, be the determining factor of success or failure for the MAGTF.<sup>20</sup> Force protection meant that the amphibious shipping needed to remain mobile and outside the range of enemy threat weapons systems which limited the range and effectiveness of aviation assets required to hit targets in the deep battlespace. It also meant that

supplies and logistics were not readily available for maneuver forces operating ashore against a numerically superior enemy.<sup>21</sup> US forces had been confronted with this problem before in the Pacific theater of World War II. Even then, they realized the importance of a combination of sea and land-based forces in order to be successful in forcible entry operations. However, the hard lessons learned on Guadalcanal would also demonstrate the importance of local air and maritime superiority of amphibious operations ashore.

The six-month battle of Guadalcanal started at dawn on 7 August, 1942. Codenamed “Operation Watchtower,” this would be the Allies first major offensive against the Empire of Japan. The naval task force included eighty-two ships manned by forty thousand sailors and six thousand Marines.<sup>22</sup> When the first wave of Marines came ashore they were shocked to find no opposition and quickly moved about a mile and a half inland.<sup>23</sup> The next day the Marines set up a defensive perimeter around their objective, a small gravel airstrip that would come to be known as Henderson Field, named after a Marine aviator who killed during the Battle of Midway.<sup>24</sup> These early successes in the campaign would soon change, when aviation support from US Navy carriers was pulled away to protect the aircraft carriers and other surface combatants at sea.<sup>25</sup> On 20 August some twelve days later that Marine F-4F Wildcat aircraft showed up to begin operations from Henderson Field. Known informally as the “Cactus Air Force,” the aviators would not only provide support to Marines on the ground but also carry out attacks against Japanese shipping that forced the Japanese to re-supply and reinforce only at night.<sup>26</sup> Once the Japanese realized that the Marines had positioned aircraft on Henderson Field naval bombardment would come daily while the Marines also endured ferocious attacks along their defensive perimeter. As the fighting continued an interesting dilemma developed between US and Japanese forces, the US maintained air superiority during the day with the “Cactus Air

Force,” but the Japanese had maritime superiority at night and used it to try and attrite the forces at Henderson Field. During the six-month campaign they would eventually lose their maritime superiority from the continuous air attacks. This would in turn prevent them from re-supplying troops ashore and ultimately lead to their decision to withdraw. The campaign is considered an Allied victory, although the lessons learned would prove to be valuable for the duration of the war and still have application today.

For example, the lack of maritime superiority prior to the initial landings nearly defeated the Allies. It also created a serious dilemma between the Navy and Marine Corps for who had the priority of naval aviation support from the aircraft carriers. These types of considerations must be dealt with prior to any operations during planning. Also, once the Marines were established ashore this lack of maritime superiority forced the US Navy back out to sea and effectively left the Marines with no fires, logistics, or ability to withdraw if required. Some of the more positive lessons that came out of the campaign centered on the establishment of Henderson Field and the use of the “Cactus Air Force,” to project power ashore and mitigate the Japanese air and naval threat. The use of Henderson Field in conjunction with naval forces constantly maneuvering at sea presented the Japanese with a combined arms dilemma that forced them to make hard decisions which eventually led to an allied victory.

The basic requirements for an amphibious forcible entry operation have remained unchanged since 1942. Local Air and Maritime superiority are required and can be the determining factor for success. Much of the organic weapons systems onboard amphibious shipping are defensive in nature which requires a great deal of support from other surface ships specifically from Guided Missile Destroyers or DDG. These ships have the ability to provide air and missile defense to amphibious forces. However, there is not always enough to provide direct support

especially against a peer competitor. The engagement criteria for targets such as cruise missiles, aircraft, and ASBM's is different in the open ocean when compared to the littorals.<sup>27</sup> DDG's typically carry a weapons load that supports the mission they were given when they left port, this means they may not even have the weapons required for this type of operation. In other words it is difficult for a DDG to provide consistent air and missile defense to amphibious forces operating in the littorals while simultaneously supporting anti-ship and Ballistic Missile Defense (BMD) operations.<sup>28</sup>

Another consideration is the need for long range multi-role combat aircraft that can not only defend amphibious forces at sea and help project power ashore. The Marine Corps is in the nascent stages of fielding the fifth generation F-35B Lightning II and replacing the aging AV-8B Harrier. The F-35 will bring an enormous improvement in capability to amphibious shipping as both a sensor and a shooter. These aircraft will certainly decrease the dependence on aircraft carriers as well as, DDGs however they are also a precious commodity to the larger Joint Force. Considering that they are one of only two operational fifth generation fighters in the world. There is a growing concern in the Marine Corps aviation community that these aircraft will be pulled away for higher tasking by the Joint Force Commander (JFC) via the Joint Force Air Component Commander (JFACC) leaving the Marines with fixed wing air support from other services or with none at all.

The dependence on DDGs, aircraft carriers, and multi-role combat aircraft to achieve the local air and maritime superiority required for amphibious forcible entry operations challenges the validity of current capabilities against a modern threat, from a peer competitor. However, the United States must retain this capability in order to maintain a presence abroad as well as, project power in the littoral regions as required. In 2017, the Department of the Navy and the

Headquarters of the Marine Corps conducted a study on Littoral Operations in a Contested Environment (LOCE). The purpose for this eighteen-month collaborative study was to examine Naval operations against modern threats and build a framework for the innovation required to overcome said name threats.<sup>29</sup> The study highlights a number of the issues that have already been mentioned but also offers some new concepts to overcome these obstacles. One of the consistent themes is the need for a combination of sea and land-based forces that are capable of projecting power in the five domains of sea, air, land, information, and space.<sup>30</sup> Much like the Operation Watchtower or the campaign on Guadalcanal in 1942, a forward deployed presence on an island or other type of Forward Operating Base (FOB) offers friendly forces an unsinkable aircraft carrier, as well as, a staging point for follow on operations.

#### **Expeditionary Advanced Base Operations: New name for an old concept**

Forward basing of forces is not a new concept but it is currently being labeled as EABO or Expeditionary Advanced Base Operations. EABO is discussed in both the MOC and LOCE documents and is quickly gaining traction as an emerging concept for expeditionary naval operations. The idea is to have a persistent yet low signature presence on key terrain which will deny the enemy maneuver space while maintaining forces aboard amphibious shipping. Although this is inherently a naval operation the MAGTF has the potential to play a major role in EABO.<sup>31</sup> The MAGTF can provide aviation, fires, logistics, command and control (C2), and sensors that could significantly disrupt an enemy's ability to react or counter an amphibious operation.

By emplacing sensors such as the new AN/TPS-80 Ground/Air Task Oriented Radar (G/ATOR) during EABO's the MAGTF would significantly enhance the overall situational awareness and defensive posture of amphibious forces aboard naval shipping. The organic radars on amphibious shipping have far less capability than the G/ATOR and don't necessarily utilize the full capability of F-35B. By emplacing sensors such as the G/ATOR on an EAB you are able to leverage its full capability without manipulating a ship's infrastructure.<sup>32</sup> Furthermore, sensors such as G/ATOR would aid in the overall defense of an Amphibious Task Force (ATF) from threats such as aircraft, cruise missile, and ASBMs.



**Figure 7. AN/TPS-80 G/ATOR.** *Janes Missiles & Rockets.* "Anti-Missile April 2, 2013, Jane's Information Group

Other options for EABO include fires assets



**Figure 8. HiMARS Firing.** *Janes Land Warfare Platforms: Artillery & Air Defence.* "Multiple-Rocket Launchers," Dec 19, 2017, Jane's

such as fixed-wing aircraft like the F-35B or the High Mobility Artillery Rocket System (HIMARS). These types of fires assets will help achieve the required local air and maritime superiority for amphibious forcible entry operations. It also creates an Anti-

Access/Area Denial (A2/AD) dilemma for enemy forces leaving them guessing on how to best employ their forces. Just as the F-4F Wildcat fighters did on

Guadalcanal MAGTF aviation based on an EAB could conduct strike missions against enemy shipping, air defense, or even provide aviation fires to a landing force during an amphibious forcible entry operation.<sup>33</sup> Finally, and EABO could serve as an intermediate staging point for

logistics or a Forward Arming and Refueling Point (FARP) for aircraft operating from amphibious shipping.<sup>34</sup>

From a logistics perspective, the combination of EABO and sea-based forces is an obvious force multiplier. Amphibious shipping can hold and sustain the supplies for a finite amount of time. Today's MAGTF's are severely limited by how long they can sustain operations ashore due to the lack of logistics and the need for re-supply from other services, which in most cases is the US Army. One of the biggest shortfalls is in Precision Guided Munitions (PGMs) and air defense weapons such as the Man Portable Air Defense system (MANPAD) FIM-92 Stinger missile available on amphibious shipping. Also, systems such as HIMARS are currently unable to fire from amphibious shipping which renders them useless until they are phased ashore. With EABO PGMs, and other enablers can be pre-positioned with no concern to the space required on amphibious shipping. Additionally, aviation operations aboard ship are highly constrained due to weather and threats, where land based aviation forces still have the ability to support twenty-four hour operations when necessary. Lastly, EABO offers expeditionary forces the ability to conduct maintenance that can't be accomplished aboard ship without surrendering another critical capability.<sup>35</sup> Although some would argue that EABO simply offers more targets to the enemy and makes an already complicated problem even harder to comprehend for the forces that are expected to carry out these types of operations.

### **The Counter Argument**

During Operation Desert Storm, the MAGTF forces operating ashore built an "Iron Mountain," of logistics and supplies in host nations such as Saudi Arabia. This trend continued through operations in Afghanistan and Iraq during the Global War in Terror (GWOT). Although

these operations were tactical victories the threat was confined to an insurgent based operation. In other words, air and maritime superiority were not necessarily a concern of senior military planners.<sup>36</sup> There is also an argument that the current amphibious capabilities are more than enough to carry out an amphibious forcible entry operation against a peer competitor because it worked for the British in the Falklands. The thought being that no modern enemy is able to oppose a US Navy Marine Corps team during a forcible entry operation. Lastly, there is a strong argument that amphibious forcible entry operations are a thing of the past, and that technology no longer necessitates that the United States retains this capability. All of these are valid arguments and should certainly be considered, after all most of the amphibious operations in the Pacific Theater during WWII resulted in tens of thousands of deaths. Furthermore, the US Navy views their amphibious shipping as transport platforms and have no plans to arm or defend them beyond their current capability.<sup>37</sup> All of these arguments should be considered when it comes to the future of the US Navy and Marine Corps team, and their ability to conduct amphibious forcible entry operations.

As valid as these arguments may be, they do not solve the issues associated with the modern contested environment, and they certainly do not offer any viable changes in Tactics, Techniques, and Procedures (TTPs) that could support the conduct of an amphibious forcible entry operation. There is no question that amphibious shipping is vulnerable to modern threats such as ASBMs and cruise missiles. There is also no question that if called upon to conduct an amphibious forcible entry operation the United States Navy and Marine Corps team would have to accept a great deal of risk before they even began the planning for such an operation. However, rather than accept this enormous risk why not adapt to the modern battlefield and

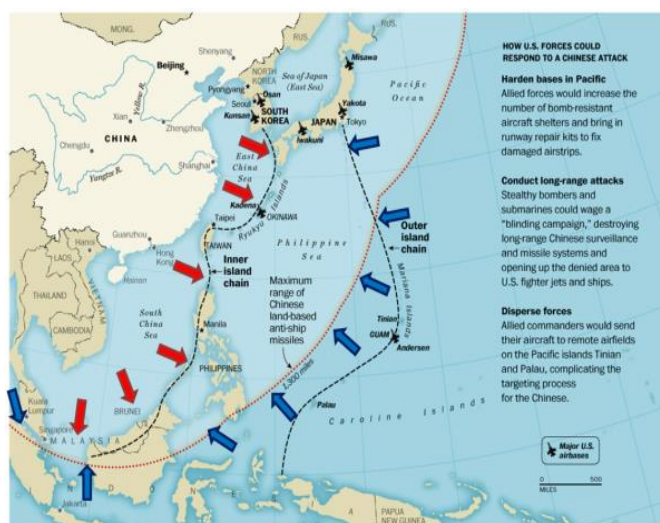
present the enemy with a serious dilemma that forces them to accept the same risk you are trying to avoid.

### The Way Ahead

By utilizing a combination of sea and land-based forces the amphibious forces of the United States military are able to project power more efficiently and effectively than the normal operations confined to amphibious shipping. With countries such as China using Anti-Access Area-Denial (A2AD) to prohibit amphibious forces from carrying out forcible entry operations it is time for the United States to evolve

beyond the threat and employ their own A2AD capability in an offensive manner. Establishing EABO will deny the enemy key terrain, effectively using their own TTPs against them in an offense vice defense. It will also disperse forces over a greater area, unlike the “iron mountains,” seen in recent conflicts this dispersion will help increase survivability and force the

enemy into a targeting dilemma. Additionally, by leveraging EABO the US will have more flexibility in the size and capability required for specific missions without the need to reconfigure a ship while it is underway. The United States can no longer afford to accept the level of risk that it did in places like Guadalcanal. There are not enough ships in the inventory to accept that level of loss, and modern sophisticated weapons with devastating accuracy pose too



**Figure 9. Proposed EABO Strategy.** Corbett, Art. *Expeditionary Advanced Base Operations*. PowerPoint presentation. Marine Corps Warfighting Lab, Quantico VA, September 21, 2017.

great of a threat to traditional amphibious forcible entry operations that embark and disembark from Naval shipping. In order to mitigate these threats and continue to retain an amphibious forcible entry capability to the United States must employ a combination of sea and land-based forces with EABO and an Amphibious Task Force (ATF). By their very nature amphibious operations involve a great deal of risk to the forces responsible for executing them. Modern threats such as those listed in the four plus one model are well aware of the capabilities and limitations of US amphibious forces. They have used this knowledge to develop sophisticated systems that can target amphibious forces well beyond their intended objective and overcome their organic defensive measures. These systems also make it incredibly difficult to achieve the local air and maritime superiority required for an amphibious forcible entry operation. Just as the British learned in the Falklands and the United States did on Guadalcanal a lack of local air and maritime superiority will have disastrous consequences that result in high casualties and the potential for overall mission failure.

The United States must evolve beyond these threats and change the current TTPs by employing a combination of sea and land-based forces through the use of EABO to carry out amphibious forcible entry operations. This shift in TTPs will allow the United States to project more power for longer durations and task organize its forces that are otherwise constrained by the space available aboard naval shipping. It will also force the enemy into a targeting dilemma and deny the use of key terrain by utilizing the same A2AD tactics that are being employed against US forces in the modern contested environment. The United States Navy and Marine Corps have the most robust amphibious capability in the world, and it is this capability that allows the United States to project power in some of the most contested environments. In order to maintain this forward presence, the United States must evolve to mitigate the modern threats

and employ their forces in the most efficient and effective means possible through a combination of EABO and sea-based amphibious forces.

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- <sup>1</sup> US Joint Staff, *Amphibious Operations*, JP 3-02 (Washington, DC: Headquarters Joint Staff, August 10, 2009), XI.
- <sup>2</sup> Ibid, 1-1
- <sup>3</sup> Ibid, I-1
- <sup>4</sup> Roger Cliff et al., *Shaking the Heavens and Splitting the Earth: Chinese Air Force Employment Concepts in the 21<sup>st</sup> Century* (Rand, 2011), 38.
- <sup>5</sup> Perring, Rebecca “North Korea’s Secret Weapon-Kim’s Stockpile of Explosive SE MINES,” *Express UK.com*, November 23, 2017, <https://www.express.co.uk/news/world/883622/North-Korea-news-World-War-3-latest-sea-mines-US-war-threat>
- <sup>6</sup> Ibid
- <sup>7</sup> Michael Clap and Ewen Southby-Tailyour. *Amphibious Assault Falklands The Battle of San Carlos Water* (Barnsley UK: Penn and Sword Books, 2007), 21
- <sup>8</sup> MAGTF Vulnerabilities p.119
- <sup>9</sup> Headquarters US Marine Corps. *The Marine Corps Operating Concept: How an Expeditionary Forces Operates in the 21<sup>st</sup> Century*. (Washington DC: US Marine Corps, Sep 2016), 10.
- <sup>10</sup> Ibid,10
- <sup>11</sup> *Jane’s Sentinel Security Assessment*. “China and Northeast Asia, North Korean Army” January 17, 2018, Jane’s Information Group.
- <sup>12</sup> Ibid
- <sup>13</sup> *Jane’s Sentinel Security Assessment*. “China and Northeast Asia, People’s Liberation Army,” January 16, 2018, Jane’s Information Group.
- <sup>14</sup> Ibid, 4
- <sup>15</sup> Ibid, 4
- <sup>16</sup> Roger Cliff et al., *Shaking the Heavens and Splitting the Earth: Chinese Air Force Employment Concepts in the 21<sup>st</sup> Century* (Rand, 2011), 4.
- <sup>17</sup> Michael Clap and Ewen Southby-Tailyour. *Amphibious Assault Falklands The Battle of San Carlos Water* (Barnsley UK: Penn and Sword Books, 2007), 21
- <sup>18</sup> Ibid, 21
- <sup>19</sup> Headquarters US Marine Corps, *Marine Air-Ground Task Force Vulnerabilities Analysis*, staff study, 1989, 115.
- <sup>20</sup> Ibid, 115
- <sup>21</sup> Ibid,115
- <sup>22</sup> James D. Hornfischer, *Neptunes Inferno The US Navy at Guadalcanal*. (New York: Bantam Books, 2011), XX
- <sup>23</sup> Ibid, 43
- <sup>24</sup> Ibid, 43
- <sup>25</sup> Ibid, 54
- <sup>26</sup> Ibid, 107
- <sup>27</sup> Warren J. Boord and John B. Hoffman, *Air and Missile Defense Systems Engineering* (Boca Raton Florida: Taylor & Francis Group, 2016), 36.
- <sup>28</sup> Ibid, 37
- <sup>29</sup> Headquarters US Navy US Marine Corps. *Littoral Operations in a Contested Environment*. (Washington DC: US Navy and Marine Corps, 2017), 7.
- <sup>30</sup> Ibid, 9
- <sup>31</sup> Art Corbett, *Expeditionary Advanced Base Operations*. (Marine Corps Warfighting Lab, Quantico VA, September 21, 2017), PowerPoint presentation.

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<sup>32</sup> APX (waiting on interview)

<sup>33</sup> Art Corbett, email message to author on January 17, 2018

<sup>34</sup> Corbett (waiting on interview)

<sup>35</sup> Headquarters US Navy US Marine Corps. Littoral Operations in a Contested Environment. (Washington DC: US Navy and Marine Corps, 2017), 18.

<sup>36</sup> Ibid, 3

<sup>37</sup> Joseph Laville, conversation with the author, January 16, 2018

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