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EVALUATION OF PEARL HARBOR NECESSITATES A MUCH-NEEDED BOOST

by

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Table of Contents

	Page
Disclaimer	ii
Table of Contents	iii
List of Figures	iv
Abstract	v
INTRODUCTION	1
Overview of the Study	1
The Nature of the Problem	2
Purpose of the Study	3
Research Question	4
Research Methodology and Structure	4
LITERATURE REVIEW	5
China's Influence in the Pacific	5
China's Military Build-Up	8
America's National Defense Strategy	10
Enhancing Lethality	12
Strengthening Alliances	14
United States Commitment to the Pacific	15
Historical Significance of Hawaii	19
Strategic Significance of Pearl Harbor	20
History Fleet Logistic Center Pearl Harbor	21
ANALYSIS, CONCLUSIONS AND RECOMMENDATIONS	22
Analysis	22
Conclusions	24
Recommendations	26
Endnotes	28
Bibliography	31

Table of Figures

	Page
Figure 1. Reviving the Silk Road	7
Figure 2. Chinese 2018 Bilateral and Multilateral Exercises	9
Figure 3: Satellite View of Pearl Harbor, HI. NASA	21



Abstract

As the United States pivots to the West, the Indo-Pacific Region has become the theater of priority for the Department of Defense. As a member of this region, the United States shares a strong bond with its neighbors through history, culture, commerce and trade. China seeks to reorder this region to their advantage by leveraging its military modernization, influence operations, and predatory economics with the intent to expand their preeminence. Diplomacy is essential in promoting a unified region through trilateral and multilateral alliances, to deter China's aggression, ensure the freedom of navigation of the South China Sea, and maintain economic stability. China continues to modernize its People's Liberation Army with the aspiration to become a "world-class" military. If the warning order is passed, the United States must be prepared for a surge movement of equipment to support contingency operations in the Indo-Pacific Region. At the crux of this endeavor, is the Fleet Logistics Center Pearl Harbor. The Ocean Terminal stands as a vital seaport to deploy the only U.S. combat division outside the continental United States. This paper seeks to answer the question whether FLC Pearl Harbor has the infrastructure in place to sustain a conflict with China.

INTRODUCTION

Overview of Study

The Indo-Pacific Region has become the theater of priority for the Department of Defense. As a member of this region, the United States shares a strong bond with its neighbors through history, culture, commerce, and trade. The sovereign bonds of these nations have allowed each country to pursue economic growth based on accepted norms, the fairness of competition, and international rules. The continuity of their shared strategic vision is uninterrupted despite an increasingly complex security environment. Inter-state strategic competition, defined by geopolitical rivalry between free and repressive world order visions, is the primary concern for U.S. national security. In particular, the People's Republic of China, under the leadership of the Chinese Communist Party, seeks to reorder the region to its advantage by leveraging military modernization, influence operations, and predatory economics to coerce other nations.¹

"To advance our vision of a free and open Indo-Pacific, we are building new and stronger bonds with nations that share our values across the region, from India to Samoa. Our relationships will flow from a spirit of respect built on partnership, not domination."

- Vice President Pence, remarks at the Hudson Institute, October 4, 2018

As the nation pivots to the Pacific, the United States faces a potential foe with a military with comparable, if not superior technology. China has developed ballistic and cruise missile technology which is comparable to the top tier producers. They have developed a shipbuilding industry that leads the world in tonnage. China has created an armament industry that can produce world-class weapon systems, across a spectrum of platforms. Finally, they have made advances in the aviation industry in which they can produce any airframe between an unmanned

aerial vehicle (UAV) to a fighter jet. Now more than ever, against an enemy with first-strike capability, the Joint Base Pearl Harbor Hickam (JBPPH) and the whole of the Pacific, must evaluate their infrastructures and resources to ensure they are equipped to support a potential conflict with China.

The Nature of the Problem

The Strategic Seaport Program is designed to facilitate the rapid deployment of U.S. Forces' assets through designated U.S. commercial and military strategic seaports in the event of a contingency, national emergency, or disaster. The Commander, Military Surface Deployment and Distribution Command (SDDC) designates ports as "strategic" based on current/projected contingency movement requirements.²

Currently, there are 17 Commercial Strategic Seaports and five Military Strategic Seaports throughout the world encompassing the Strategic Seaport Program. In 2013, the Naval Supply Systems Command (NAVSUP), Fleet Logistic Center (FLC) Pearl Harbor was designated the sixth strategic seaport.³ Pearl Harbor serves as one of the Navy's busiest and most strategic ports in the mid-Pacific and is home to a fleet of Navy surface ships, submarine squadrons and various support ships.

The problem is that Pearl Harbor's pier infrastructure has been eroded throughout the years from budget cuts and neglect. Rebuilt after December 7th, 1941, many of the piers have been degraded to the point of only providing limited services. Budget cuts have reduced manning levels, often leaving vital departments short-handed. The evolving threats from China are cited as the primary challenges in the current U.S. defense strategy, superseding the war on terrorism as the top priority. China, with the world's second-largest economy, is making significant

investments in military capabilities to challenge America's post-World War II dominance, especially in the Asia-Pacific Region.⁴

The Ocean Terminals Division at FLC Pearl Harbor serves as the preferred Seaport of Debarkation (SPOD) for the U.S. Army's 25th Infantry Division and the United States Marine Corps' 3d Marine Regiment. Pearl Harbor transfers an average of 400,000 measurement tons of military equipment per year with a staff of 14 civilian personnel and one military director. Using Pearl Harbor for a surge movement of equipment and materials is contingent on the support that may not be available when the warning order drops.

Purpose of the Study

The purpose of this study is to evaluate FLC Pearl Harbor's infrastructure and resources to ensure they are equipped to support a conflict with China. A portion of U.S. exports is shipped through these waterways to countries throughout the Indo-Pacific Region, with exports to China and India doubling since the previous decade. Commerce exchanges are possible by free and open trade routes, which form the current global system.⁵ China has recognized the current global system and is making significant investments in military capabilities to challenge America's post-World War II dominance, especially in the Asia-Pacific Region. China has watched the United States very closely, mimicking their capabilities, adopting our doctrines, and organizations.⁶ This research will aid in identifying the existing and future waterfront berthing, facility requirements to accommodate the projected homeport, transient ship loading at Pearl Harbor, and proposed strategies to meet near and long-term mission requirements. Installation planners have a daunting task in maintaining an aging berthing infrastructure while trying to accommodate ongoing and new mission's requirements. Pearl

Harbor must be able to support the influx of military assets required to maintain security, stability, and economic prosperity in the Indo-Pacific AOR.

Research Question

The intent of this research is to determine the answer to the following research question: Are the infrastructures at Pearl Harbor adequate to sustain a conflict with China? This research will evaluate the current infrastructure of FLC Pearl and its capability to support the Joint Reception, Staging, Onward Movement and Integrations (ROS&I) movement through its Seaport of Debarkation. Additionally, we will examine the current manning structure to determine if FLC Pearl Harbor is aligned with the current throughput. FLC Pearl Harbor will have to augment their staff in order to sustain surge operations. Numerous courses of actions will have to be exercised using a multitude of entities to ensure capabilities and expectations can be met. In the end, a course of action should be developed in order to allow the commanders to make an informed decision on how to prepare for surge operations.

Research Methodology and Structure

The framework for this research topic will be based on the process of evaluation. The purpose of this evaluation is to provide the decision-makers possible courses of action to prepare for surge deployments. The first aspect of the research is to frame the current situation in the Indo-Pacific AOR with the rise of the Chinese military in the South Pacific. The People's Republic of China continues to build up its military, as the preeminent power in the Indo-Pacific AOR. Secondly, the study will focus on the Indo-Pacific AOR from the American perspective, portraying the relationship between Hawaii and the American military in the Pacific. The research will trace the United States' involvement with Hawaii, how the island nation became one the United States most strategic location in the middle pacific. The paper

will examine the current capabilities of Pearl Harbors' logistical operations and Ocean Terminals operations capabilities. The study will examine the current organization structure, the pier capabilities, current manning structure, and budget constraints. The study will culminate with recommendations to the possible of Military Surface Deployment and Distribution Command (SDDC) requirement for FLC Pearl Harbor to flex to support a surge movement of personnel and material.

LITERATURE REVIEW

China's Influence in the Pacific

The Indo-Pacific Region has become the priority for the Department of Defense. History, culture, and trade have bonded the United States to other Pacific nations. The sovereign bonds of these nations have allowed each country to pursue economic growth based on accepted norms, fairness of competition, and international rules. The continuity of our shared strategic vision is uninterrupted despite an increasingly complex security environment. Inter-state strategic competition, defined by geopolitical rivalry between free and repressive world order visions, is the primary concern for U.S. national security. In particular, the People's Republic of China, under the leadership of the Chinese Communist Party, seeks to reorder the region to its advantage by leveraging military modernization, influence operations, and predatory economics to coerce other nations.⁷

Chinese President Xi Jinping announced two significant programs, Made in China 2025 (MIC 2025) and Belt Road Initiative (BRI), as a step towards globalization, open trade and investment. These plans are designed to transform China into a global manufacturing leader. Components of the MIC 2025 aim to promote indigenous innovation, domestic brands, secure and controllable standards, and localization of production and data.⁸ These initiatives have begun

to create friction with other countries that depend on manufacturing and high-tech industries. The MIC 2025 is concentrated on large aircraft, aircraft engines, new energy vehicles, smart grids, medical devices, and improving indigenous research and development.

The objective of achieving this initiative is three-fold. First, China will support domestic companies in their development of indigenous innovation. These are local efforts in the development of technology, intellectual properties and brands. Second, is the reduction of their reliance on foreign technology. President Xi has called for the advancement of domestic production and indigenous and controllable substitution plans. The goal is to acquire foreign technology and reengineer it indigenously.⁹ Once China has the technology and branding, their goal is to capture domestic and international market shares.

The Belt Road Initiative (BRI) is geared towards encouraging connectivity, economic flow, job opportunities, investment and consumption, cultural exchanges and the spirit of regional cooperation between Asia, Europe and Africa by creating jointly built trade routes emulating the ancient Silk Road. Sixty-eight countries composed of 40% of the global gross domestic product (GDP) have signed onto this BRI in setting up 6 major corridors networked through rail, roads, waterways, pipelines and highways containing land and maritime route. Running parallel to these routes are massive infrastructure projects.¹⁰

Indo-Pacific countries around the world remain wary of China's growing ambitions, expanding military capabilities, unfair trade practices and ever-tightening domestic security state. The United States and other allies have been leery of China's initiatives based on their predatory economy associated with their "debt-trap diplomacy." In December 2017, China foreclosed a 99-year lease on Hambantota Port in Sri Lanka when the government failed to repay the loans that had financed its construction. Efforts to counter Beijing's plan by offering developing economies

a US alternative soon ensued, with Secretary of State Mike Pompeo announcing in July a US\$113 million infrastructure development program for the Indo-Pacific Region and a revamp of a finance agency to strengthen its financial support.¹¹



Source: China Belt and Road Initiative, Rand Europe

Figure 1: Reviving the Silk Road

These economic investments have caused apprehension based on China's manipulative investment tactics causing some countries to retract their collaboration. Pacific nations have felt that the Chinese are using these economic strategies as way to take their sovereignty through colonization. China is seeking to capitalize on its growing economy, diplomatic and military influence to expand its international influence and preeminence. China's leaders have an

inclination that the United States is trying to suppress their rise to power through the release of the U.S. defense and national security strategies. China's national aspiration is the "China Dream." The concept is for China to return to the status of a powerful and prosperous nation.¹²

China's Military Build-Up

China has taken an even greater interest in enhancing its military in order to become a world power. The People's Liberation Army (PLA) will be modernized to win wars, deter enemy aggression and secure Chinese interests overseas. The PLA has emphasized space, cyber, and information operations, offensive air operations, and logistics over the shore. Realistic training scenarios have been designed to fight against "strong military opponents." The training focused on war preparedness and improving the PLA's capability to win wars through realistic combat training, featuring multi-service exercises, long-distance maneuvers and mobility operations, and the increasing use of professional "blue force" opponents.¹³

China conducted STRIDE 2018, which was a brigade-size PLA exercise to test their offensive and defensive capabilities developing tactics for all the associated elements. Additionally, FIREPOWER 2018 was an exercise developed for their air defense and combat arms against formidable notional opponents. The PLA Navy conducted live-fire exercises in the East China Sea to deter Taiwan's desire for secession. The People's Liberation Army Navy-Marine Corps (PLANMC) conducted long-range training maneuvers to improve its expeditionary capabilities. The People's Liberation Army Air Force (PLAAF) held its signature Blue Shield, Red Sword, and Heaven's Sword exercise to hone their offensive and defensive capabilities, air defense, electronic warfare and command and control. The exercise incorporated a joint logistic support force unit, service-level logistics units, as well as PLA Army, Air Force, and civilian national defense mobilization forces from the Western Theater in

the first comprehensive, logistics support exercise since the establishment of the Joint Logistics Support.¹⁴

Selected Bilateral and Multilateral Exercises in 2018		
Exercise Name	Type of Exercise	Participants
SAGARMARHA FRIENDSHIP 2018	Special Operations	Nepal
GOLDEN DRAGON 2018	Counterterrorism / Humanitarian Assistance	Cambodia
International Army Games	Miscellaneous	Hosted by Russia, Kazakhstan, Belarus, China
China-ASEAN Joint Maritime Exercise	Maritime	Singapore, Thailand, Brunei, Vietnam, the Philippines, Cambodia, Indonesia, Malaysia, Burma
PEACE AND FRIENDSHIP 2018	Maritime	Malaysia, Thailand
FALCON STRIKE 2018	Air	Thailand
VOSTOK 2018	Strategic	Russia
PEACE MISSION 2018	Counterterrorism	Russia, Kazakhstan, Tajikistan, Kyrgyzstan, India, Pakistan
HUNTING FALCON 2018	Counterterrorism	Belarus
HAND IN HAND	Counterterrorism	India
SHAHEEN VII	Air	Pakistan
WARRIOR VI 2018	Counterterrorism	Pakistan

Source: Office of the Secretary of Defense, Annual Report to Congress

Figure 2: 2018 Chinese PLA Bilateral and Multilateral Exercises

China has grown interested abroad with its first overseas military base in Djibouti, Africa. Chinese operations in Djibouti commenced in 2017, demonstrating to the world stage its ability to protect Chinese interests and citizens in foreign countries, as evident by their noncombatant evacuation operations in Libya and Yemen.¹⁵ China has invested in overseas commercial ports with an alternative purpose to use these facilities as strategic logistics centers for their Navy. Simultaneously, China has installed anti-ship missiles, surface-to-air missiles, and jamming equipment on many of their contested islands, mainly Spratly Islands. According to U.S. Navy Admiral Philip Davidson, given the increasing militarization of these territories, China now has

the ability to control the South China Sea in all scenarios short of war with the United States.¹⁶ However, based on recent activities, China is having difficulty establishing bases. Outside of North Korea, China does not have any alliances and only one overseas base compared to the United States. One unofficial estimate report, that the U.S. operates approximately 800 military bases in more than 70 countries and territories, with 70,000 troops based the Pacific alone.¹⁷

By 2035 China aims to complete the modernization of the People Liberation Army and develops into a “world-class” military by 2049. Modernizations include improvements to their A2/AD capabilities, nuclear deterrence, and power projection operations. Initiatives have been introduced in space operations, counterspace and cyber operations. The PLA is seeking to conduct real-time surveillance, reconnaissance, and warning stemming from bolstering capabilities.¹⁸ In 1993, Jiang Zemin directed the PLA to prepare for local war under modern, high-tech conditions after observing U.S. military operations in the Gulf War. In 2004, Hu Jintao ordered the military to focus on winning “local war under informatized conditions.”¹⁹

A hacking group operating out of China known as the Advanced Persistent Threat 10 (APT10) has been involved in the theft of hundreds of gigabytes of sensitive information from industry leaders. A spectrum of companies ranging from aviation, satellite technology, technology, communications and computer processing technology are all implicated. Strides have been made in Chinese missile technology such that U.S. bases in Japan are now in range of a growing number of Chinese ballistic missiles. PLAAF bomber flights into the western Pacific Ocean have demonstrated China’s ability to range Guam with an air-launched cruise missile.²⁰

America’s National Defense Strategy

The United States Department of Defense (DoD) has a responsibility to provide a combat-ready military to either deter hostility or protect our nation. Should diplomacy fail, it is

the mission of the DoD to provide options to the President and diplomats through a posture of strength. The U.S. Military is emerging from a prolonged war in the Middle East that has eroded its strategic competitiveness. In an ever-complex world, strategic competition has replaced terrorism as the primary concern of U.S. national security. China has emerged on the world stage as a strategic competitor who has been able to use its predatory economics to intimidate its Pacific neighbors and militarize the South China Sea.²¹ An enduring strategic competition will require a combination of diplomacy, information, economics, finance, intelligence, and military engagement to expand its viable space and seize the initiative to challenge the competition. A lethal fighting force, strong alliances, and technological innovations will produce a decisive and sustained U.S. military advantage.

“Starting in the Indo-Pacific, our priority theater, we continue to pursue many belts and many roads by keeping our decades-old alliances strong and fostering growing partnerships.”

- Acting Secretary of Defense Patrick M. Shanahan, testimony to the Senate Armed Services Committee, March 14, 2019

Diplomacy will be key moving forward for rivals to abandon aggression and strengthen partnerships and alliances. Through the use allies and partners, the United States will challenge competitors by maneuvering them into unfavorable positions, frustrating their efforts, precluding their options while expanding our own, and forcing them to confront conflict under adverse conditions. Transparent relationships between government agencies will be essential to predict, identify, and assess areas of vulnerability.²² Seamless integration will be required for the Department of State, Treasury, Justice, Homeland Security, and the intelligence community to address economic, technological and informational vulnerabilities. Forces and agencies will have

to out-work, out-maneuver, and out-wit regimes, foreign actors and terroristic ideologies in order to foster a competitive mindset.

“The 2018 National Defense Strategy’s unified framework enables a potent combination of teamwork, resources, and an unmatched network of allies and partners stepping up to shoulder their share of the burden for international security. The National Defense Strategy also fosters alignment within the Department, the Interagency, industry, and Congress.”

- Acting Secretary of Defense Shanahan, testimony to the House Armed Services Committee, March 26, 2019

As the United States pivots to the West, the Nation’s strategy is to restore a lethal force. It is thought that the best method to prevent an escalation of war is to prepare for one through warfighting readiness. The United States must be able to deploy a force that can defeat an adversary and achieve a sustainable outcome in order to protect the American people and vital interests.²³ The projection of power through modernization must be achieved to counter and deter aggression from strategic competitors and rogue states. A nation can’t be expected to fight tomorrows’ battles with yesterday’s technology.

Enhancing Lethality

“We are adapting to fight against near-peer competitors. Our armed forces are learning to expect to be contested throughout the fight...We are changing our mindset, working to regain our advantages, and playing to our strengths. Alliances and partnerships are at the heart of this competitive effort.”

- Assistant Secretary of Defense for Indo-Pacific Security Affairs, Randall G. Schriver, speech at the Elliot School of International Affairs, February 7, 2019

In order to build a more modern lethal fighting force, the Department of Defense (DoD) will have the laborious task of prioritizing and reallocating budgets to sustain strategic competition. One of the major facets of deterring aggression is the United States nuclear force.

The atomic arsenal will have to be revitalized to include the nuclear triad. The nuclear triad is composed of intercontinental ballistic missiles, submarine-launched missiles, and air-launched cruise missiles delivered by aircraft. The American deterrence capability of the U.S. nuclear triad underwrites our national security. These weapon systems are quickly coming to the end of their expiration date. Our mid-century nuclear capability may not be enough of a deterrent to fend off an adversary.²⁴ Simultaneously, U.S. cyberspace capability, another dominant dimension to the American Military's lethality, will have to be reconstituted with an emphasis on cyber defense. Investments will have to be made in the arena of command, control, communications, computers and intelligence, surveillance and reconnaissance (C4ISR).

Investments will prioritize the capabilities necessary to gain and exploit information, deny competitors' advantages, and enable the United States to provide attribution while defending against and holding accountable state or non-state actors during cyberattacks.²⁵ Investments will need to be made in the realm of missile defense for the United States' outlying territories. Hawaii and Guam are the U.S. western most territories which are significant strategic hubs. These islands hold substantial fuel and ammunition reserves for the entire Indo-Pacific Region. Finally, investments will prioritize prepositioned stocks and munitions, strategic mobility assets, and partner and allied support. Non-commercially dependent distributed logistics and maintenance will be required to ensure logistics sustainment.²⁶

Steps have been taken to enhance a more robust, capable, and lethal fighting force. Inadequate schemes and maneuvers from the past must be revised to meet the requirements for tomorrow. Tomorrow's requirement will necessitate forces to develop a competitive edge over potential strategic competitors. Forces will have to be adaptable, agile, and proactive in a dynamic environment in order to provide the commanders with the best courses of action. The

Global Operating Model provides the Joint Force the latitude to position and employs personnel in achieving their mission in the realm of cyber, space, C4ISR, nuclear, and mobility.²⁷

Professional work forces are essential for warfighting success. Measures are being taken to recruit, train and retain the most qualified force to enhance lethality. The warfighter and civilian support staff must be resilient in their abilities to integrate new capabilities and adapt to change in order to achieve mission success. The American fighting force is being asked to enhance their aptitude through Professional Military Education (PME). These programs are designed to enhance the service members' leadership attributes, deepen their knowledge in science of warfighting and develop their military acumen. These leaders are further cultivated through fellowships, advanced civilian education, staff positions in the interagency decision-making process and liaison officers within coalitions forces. Finally, the DoD is focusing on the civilian work staff to empathize the skills required to develop a modern and agile workforce.²⁸

Strengthening Alliances

The DoD recognizes the need to enhance their lethality by investing in a military modernization program, its service members, and civilian personnel. The most import aspect of National Security is diplomacy through building and strengthening alliance and mutual partnerships. This approach has served the United States well, in peace and war, for the past 75 years. Our allies and partners came to our aid after the terrorist attacks on 9/11 and have contributed to every significant U.S. led military engagement since.²⁹ The synergy between allied nations had provided strength to deter aggression, provide a balance of power, and generate economic growth. Agreements between these alliances have increased the DoD's global reach through allied support of military basing and logistics centers. Indo-Pacific alliances and

partnerships will continue to be cultivated in order to deter aggression, maintain stability, and ensure a freedom of navigation throughout the Indo-Pacific Region.

United States Commitment to the Pacific

Through the lens of the American National Defense Strategy to counter the Chinese economic and military expansion in the Pacific, this research will focus on the Indo-Pacific Region of Hawaii. Among the 10 most massive armies in the world, seven reside in the Indo-Pacific; and six countries in the region possess nuclear weapons. Nine of the world's busiest seaports are in the region, and 60 percent of the global maritime trade transits through Asia, with roughly one-third of the global shipping passing through the South China Sea alone.³⁰ Part of the Pacific nation, the United States has vigilant interest in the Indo-Pacific theater. The U.S. has watched China take advantage of debt-burdened countries in Europe, Africa, the Middle East and South America. Through their predatory efforts, China has taken advantage of these countries fiscal shortfalls in order to take possession of their sovereign assets for strategic and military access. The United States stands committed to its Pacific partners through *preparedness, partnership and promoting a networked region*.

Indo-Pacific Region remains susceptible to a myriad of challenges spanning from terrorism to weapons proliferation to natural disasters. The Indo-Pacific Region is infamous for the Pacific Rim of Fire, natural disasters such as monsoons, earthquakes, typhoons, and floods. A combination of natural catastrophes and weak governments can make them susceptible to exploitation. The challenges in the Indo-Pacific is beyond the comprehension of one country. The United States will have to make all efforts to enhance its preparedness through joint exercise planning and weapon modernization. The might of the American military will have to be technologically sound in order to remain agile, lethal, and resilient. To test its capabilities, the

U.S. Army will continue to test a multi-domain task forces concept through the Pacific Pathways program to determine the right capability mix and locations.³¹ The Army will also conduct a brigade-sized Pacific Pathways exercise in 2020 in Thailand and the Philippines. According to, U.S. Army Pacific Commander Maj. Gen. John “Pete” Johnson the exercise will take place “where you can’t move by ground, you can’t just deploy a large force to ground and then maneuver from that point of departure. Here, maneuvering in partnership with air and maritime is going to be essential to creating option for the joint force commander.”³² U.S. Navy and Marine Corps are similarly testing a concept of expeditionary advanced base operations (EABO) to support maritime operations inside a contested environment. The Pacific Ocean is over 60 million square miles, a one-third larger than the Atlantic Ocean, and 16 times the size of the United States. Land mobility is of little value in an arena where all maneuverability is held hostage to the Navy’s ability to control the sea lanes, and where land maneuver space is always at a premium. Decades of reductions in fleet size are imperiling the U. S. Navy’s capacity to control vast tracts of the Pacific, making a dangerous breakout of China’s growing by their blue water fleet possible.³³ The United States will continue to assess, prepare contingencies, and be adequately established for the future. The Indo -Pacific region has more than 2,000 aircraft; 200 ships and submarines; and more than 370,000 Soldiers, Sailors, Marines, Airmen, DoD civilians, and contractors assigned within this area of responsibility.³⁴ The DoD is set to modernize its assets in this region by investing in new ballistic missile submarines technology, purchasing 4th and 5th generation aircraft, a purchase of both air-to-air and extended range missiles, an upgrade to their ballistic missile defense, and cyber operations.

“DoD’s participation in combined military exercises has increased by seventeen percent in the last two years, and our Foreign Military Sales have increased by more than sixty-five percent in the last three years.”

- Acting Secretary of Defense Shanahan, testimony to the House Armed Services Committee, March 26, 2019

Forging and strengthening alliances is the key component to retaining peace, stability, and prosperity in the Indo-Pacific Region. To forge new alliances, the United States instituted the Better Utilization of Investments Leading to Development (BUILD) Act. The BUILD Act spawned the United States International Development Finance Corporation (USIDFC) as an alternative means for low GDP countries to finance infrastructure projects. The implementation of the USIDFC is designed as an alternative to the predatory economic exploitation of the Chinese’s Belt and Road Strategy. The BUILD Act offers greater flexibility in financing for low and mid GDP countries. The act provides great agility to offer financially sound, transparent investment alternatives.³⁵ Relationships with Japan, South Korea, Australia, Thailand, and the Philippines have paid dividends in order to maintain peace in the Indo-Pacific Region . The United States will continue to maintain and strengthen these relationships through cooperative efforts in security and information sharing. Joint international exercises will continue to build a cohesive power projection against aggression. By streamlining bureaucracy, Foreign Military Sales has bolstered alliances by making cutting-edge technology more accessible to international partners. Professional education and international symposiums are another means to engage Indo-Pacific partners. The Asia-Pacific Center for Security Studies has hosted in-resident courses encompassing over 100 fellows from more than 35 countries. The multinational cohorts of

military officers have developed courses of action to enhance cross-border law enforcement information exchange, mitigate migration emergencies, and reducing human trafficking.³⁶

Promoting a networked region through trilateral and multilateral alliances have been used to deter aggression, ensure freedom of movement, and maintain stability. The trilateral partnership between Japan, Republic of Korea, and the United States are crucial to maintaining international order and security in the Indo-Pacific Region. Together this trilateral partnership works in conjunction with ballistic missile defense, anti-submarine and counter-measure warfare, and humanitarian assistance. The United States is looking to strengthen trilateral relationships with Japan and Australia, enhancing interoperability in the Pacific through integrated joint exercises and training. Exercise COPE North Guam and Southern Jackaroo demonstrate the nation's commitment to their trilateral relationship to ensure the interoperability in the Indo-Pacific Region. The United States and Japan are looking towards India as another partner in a trilateral partnership to increase connectivity between the Indian and Pacific Oceans. The United States hosted a naval force exercise, Malabar, demonstrating the United States' commitment to this potential trilateral relationship. In November 2018, leaders from the United States, India, and Japan held the inaugural trilateral meeting at the G20 summit.³⁷ Rim of the Pacific (RIMPAC) Exercise is the world's largest international maritime exercise held biannually from June to August around the Hawaiian Islands. RIMPAC provides a unique training opportunity designed to foster and sustain cooperative relationships with coalition forces. These relationships are critical to ensuring the safety of sea-lanes and security on the world's interconnected oceans. In 2018, twenty-five nations, forty-six surface ships, five submarines, and more than two hundred aircraft and twenty-five thousand personnel-including seventeen Marine and Army contingents participated in the biennial exercise.³⁸ RIMPAC 2020 will take place in the South China Sea as a

sign of solidarity against China's efforts to dominate the strategic waterway and encourage the freedom of navigation throughout the South China Sea. In multinational engagements, the United States supports the Association for Southeast Asian Nations (ASEAN). The cohort shares common values and policies in promoting the freedom of navigation, sovereignty, and regional integration. Through the Global Peace Operations Initiative (GPOI), the nations of the Indo-Pacific Region have contributed more than one-third of all U.N. peacekeeping personnel to promote peace and security while advancing cooperation, building confidence, and professionalization. The United States is dedicated to the GPOI through sponsoring training exercises, equipment, and facilities with the objective of enhancing their preparation, deployment and sustainment capabilities. To solidify a sovereign commitment, Indo-Pacific countries are signing new defense agreements and arrangements, enhancing training, exercises, and operations to help stabilize the Indo-Pacific.³⁹

Historical Significance of Hawaii

Hawaii has maintained a vital logistical presence for seafaring nations in the Pacific dating back to 1778, when Captain James Cook initially set foot on the island. The United States made its first visit to the island when an expeditionary unit visited in 1840. In 1846, at the height of the American Whaling Industry, nearly 800 whaling vessels would visit the islands, bringing with them the worn ships in need of repair and re-provision, along with famished sailors in need of liberty. An economy of businesses was established in Honolulu and Lahaina to meet the demand for carpentry, blacksmith, textiles, provisions and boarding houses. As the American presence in the area continued to escalate, the U.S. Navy would begin to patrol in this region to protect the American commercial interest.⁴⁰ After the discovery of oil, the sailing ships of the American Whaling Industry would soon vanish. The Hawaiian economy based on supporting the

whaling industry was replaced by sugar cane, and the United States would soon take a keen interest in the island nation, for its strategic significance in the Pacific. In 1873, a military expedition was dispatched to Hawaii with orders to assess the island for its defensive capability and commercial capability. The titans of the sugar industry applied pressure to Hawaiian King Kalakaua to sign a treaty with the United States in 1875. The Reciprocity Treaty of 1875 would foreshadow the annexation of Hawaii. The treaty allowed the sugar plantations to export sugar to the United States duty-free in exchange that the Hawaiian government would not lease the inlet to the Pearl River to another country. In 1887, the treaty was restructured to grant the U.S. exclusive rights to the harbor to establish an official presence. The U.S. could now firmly establish itself as the gatekeepers of commerce and diplomacy over vast portions of the Pacific Region.⁴¹ Following the Spanish American War, the United States would annex Hawaii in 1898 at the urging of President William McKinley. In 1900, Hawaii finally became a territory of the United States. Years later, 1911 would serve as a significant milestone for the U.S. Navy. The deep-water channel to Pearl Harbor was dredged, allowing the USS California to be the first vessel to enter the harbor on December 14, 1911. As the strategic significance of the island was realized, the Navy quickly established a coaling station, ammunition bunkers, hospital, Marine Barracks and Naval Air Station. This remote forward-deployed base was quickly transformed into a major Naval Operational Base in the heart of the Pacific.

Strategic Significance of Pearl Harbor

In 1917, the United States purchased Ford Island in the middle of the harbor to establish Army-Navy aviation. In 1919, the newly established Naval Air Station received its first air crew. The base continued to grow though the austere post-World War I budget appropriations to the likes of Puget Sound and Mare Island. By 1934, the Minecraft Base, Fleet Air Base, and

Submarine Base were added to the existing Navy Yard.⁴² In 1940, with tensions rising in the Pacific, the Pacific Fleet was homeport shifted to Pearl Harbor. The United States Pacific Fleet later suffered crippling damage, on December 7th, 1941 by way of a surprise attack by the Japanese. The raid killed 2,368 personnel, sank four battleships, and heavily damaged four others.⁴³ However, the raid did little damage to the base's infrastructure, which would be vital as the United States officially entered World War II.



Source: Pearl Harbor: The Navy's Home in the Pacific

Figure 3: Satellite View of Pearl Harbor, HI. NASA

History Fleet Logistic Center Pearl Harbor

Originally named Naval Supply Depot Pearl Harbor, the building site was under construction during the raid on Pearl Harbor, and the Japanese pilots paid little attention to the structure. The Navy Supply Depot was officially opened on October 2, 1942 and immediately

began supplying the fleet. Twenty-Four hours a day, an endless stream of cargo would be loaded onto the holds of waiting cargo ships. As war raged across the Pacific, the Navy Supply Depot could quickly provide the provisions needed to sustain combat operations. "Meats and coffee, ammo and oil, medical supplies, uniforms . . . all were pulled from the supply depot's warehouses, packed and crated, and shipped hurriedly to the front." ⁴⁴ Admiral Chester Nimitz referred to the Naval Supply Depot's sustainability as the "the secret weapon of the Pacific." ⁴⁵ Seventy-eight years later, the foundation of FLC Pearl Harbor remains the same. Today, designated by Surface Deployment and Distribution Command (SDDC), FLC Pearl Harbor stands as a strategic seaport to deploy the only U.S. combat division outside the continental United States. An Army division is typically composed of four brigade combat teams (BCT), an aviation brigade, an artillery brigade, an engineering brigade, and a logistical brigade. Based on their mission construct, an Army division can be composed of as many as 12,000 to 16,000 personnel. On a smaller scale, a light infantry BCT is comprised of 4,400 to 4,700 personnel based.⁴⁶ The equipment required to support a BCT can reach up to 1,500 pieces of equipment encompassing vehicles, shipping containers, and aircraft. The magnitude of amount and weight of equipment can quickly overwhelm an aerial port of debarkation (APOD), making sea transport mandatory.⁴⁷ The fundamental concern is that FLC Pearl Harbor will not be able to endure a prolonged surge operation to sustain the movement of the Army brigade.

ANALYSIS, CONCLUSIONS, AND RECOMMENDATIONS

Analysis

The evaluation of FLC Pearl Harbor is based off the doctrine of Navy Expeditionary Logistic Support Group (NAVELSG) required operational capabilities for expeditionary logistics. The Ocean Terminal at FLC Pearl Harbor is a multi-operational port designed to be the strategic seaport of embarkation/debarkation in the event of a contingency, national emergency,

or disaster. The port is capable of supporting container, breakbulk, roll-on/roll-off (RORO), and lift-on/lift-off (LOLO) operations. An existing staffing shortage is a major concern for a large cargo operation. The port is staffed with fifteen civilian personnel and 1 Naval Officer. The current FLC Pearl Harbor Ocean Terminal manning structure: Director, Deputy Director, Financial Analyst, Longshoring Supervisor, Documentation Supervisor, Rigging Lead, Transportation Assistance (2), Rigger (2), Documenter (3), Crane Operator (2), and Motor Vehicle Operator. Conversely, a Navy cargo handling hatch team is composed of nine members: hatch captain (1), hold boss (2), crane operator (2), and stevedores (5). A cargo handling battalion is composed of 12 to 24 hatch teams, roughly 108 to 216 personnel per their doctrine. Each hatch team is certified for a projected throughput of 6 containers, or 10 breakbulk pallets, or 40 rolling stock vehicles daily. This capability is far more efficient for surge operations than what is currently available at the Ocean Terminal.

The current manning structure will only allow the ocean terminal division to maintain one 12-hour shift. For cargo movements exceeding 200 pieces, or exceed 24-hour operations, FLC Pearl Harbor will have to augment their staff. There are three courses of action FLC Pearl Harbor can use to support their cargo operations. First is the use of Navy Reserve support. A verbal agreement was made with NAVELSG to support cargo operations with one of their six reserve battalions based on their Optimized Fleet Response Plan (OFRP). These battalions are in a constant rotational cycle between maintenance, training, deployment, or sustainment. Reserve battalions are experienced cargo handlers with the ability to integrate into any cargo movement but could take 15 to 30 days to arrive on island. Typically, the reserve element will use their two-week annual training (AT) to augment cargo operations essentially costing FLC Pearl Harbor no money. The downside of reserve support is their limited availability once their AT has been

expended. The second option is the use of NAVELSG active duty battalion. This is a multifaceted battalion with unique expeditionary capability and is in high demand throughout the world. Based on the battalion's mission priority, their services are not always readily available. A downside of this agreement, FLC Pearl Harbor will be required to pay for the travel and per diem of the active-duty cargo handlers who support the mission, which could reach a payment of six figures. The third option is to contract the operation out to a local longshore union. A five-year contract has been set up to support FLC Pearl Harbor in emergency operations. The union will take ownership of the operation and charge FLC Pearl Harbor - based on the amount of equipment being moved. Using contracted labor for a large brigade movement would be an astronomical cost to FLC Pearl Harbor.

Built during the 1940s the piers at FLC Pearl Harbor are beginning to lose their structural integrity. Through visual inspection, the wooden pilings have either disintegrated or broken away from their stanchions. According to Navy Facilities Engineers, it is not recommended to make heavy crane lifts on several of the piers based on their depressed structural integrity. The lack of pier space suitable for crane operations hinders FLC Pearl Harbor's ability to reprovision ships. Lastly, Joint Base Pearl Harbor-Hickam (JBPPH) Ports Operations will not berth ships on these piers based on safety concerns.

Conclusions

At the conclusion of this research, China will continue to present a challenge in the Indo-Pacific Region. As the National Defense Strategy pivots to the Pacific, JBPPH must be prepared to handle the influx of ships to support Indo-Pacific operations. The Chinese will continue to expand their influence in the hemisphere through their Made in China 2025 and Belt Road Initiatives. China will leverage their economic initiatives and military interests to coerce other

nations in the region in order to expand its footprint. The People's Republic will seek to exploit low GDP countries through their predatory economy "debt-trap diplomacy" with intent of expanding their colonization, seeking every opportunity to weaponize their Peoples Liberation Army with the intent of transforming it into a "world-class" military.

It can also be concluded the United States must be prepared to support trilateral and multilateral relationships to deter aggression and ensure the freedom of navigation in the South China Sea. Diplomacy will be required to counter the Chinese economic and military expansion in the Pacific. Using alliances and partners, the United States will challenge near-peer competitors by maneuvering them into unfavorable positions, frustrating their efforts, precluding their options while expanding their own, and forcing them to confront conflict under adverse conditions. The United States will network with trilateral and multilateral alliances to promote a network region.

Finally, it may be concluded, the United States Military remains on top of the world stage as the only elite super- power. Near-peer competitors have aircraft carriers, advanced submarine technology, and 5th generation aircraft, but they lack what the United States has mastered. Logistical support is what truly sets the United States apart from other nations. The ability to supply forward-deployed troops through the air, by land, or sea is what gives the American Military the power projection capability. The combat elements' ability to remain on station for an extended period is the essence of strength. FLC Pearl Harbor is a strategic seaport whose mission capability supports this concept of power projection. JBPPH and the functions of the Ocean Terminals is a key facet to maintaining stability in the Indo-Pacific Region.

Recommendations

The South China Sea will remain a contested waterway making the Indo-Pacific Region an integral part of the United States National Strategy. There are three recommendations that FLC Pearl Harbor may use to bolster their surge capabilities for a contingency operation. The first recommendation is to assess the Ocean Terminal manpower requirement through a Shore Manpower Requirement Determination (SMRD) study. The SMRD will use Ocean Terminals activity mission, workload functions, and task assignments to assess and measure port capacity during permissive and mobilization requirements. The study will define the equipment required and skill level needed for the strategic seaport to efficiently and effectively carry out their mission. Finally, a determination will be made recommending the minimal manpower necessary to sustain cargo operations.

A second recommendation to have FLC Pearl Harbor employ an experienced operational planner. An experienced planner will be familiar with the Joint Operation Planning Process (JOPP) starting with the initiation of the commander's intent and span through the order development. A planner will be able to assimilate with other services to actively participate in exercise planning. This position would be pivotal in establishing realistic expectations through training sessions and rehearsal of concepts scenarios. Most importantly, if the SMRD stalls, the planner would be able to link commands with cargo capabilities with FLC Pearl Harbor in the operational plans to support contingency operations.

The third recommendation is to consult with Naval Facilities Engineering Command (NAVFAC) to request a waterfront functionality study. The premise behind this study is to identify existing and future waterfront requirements to accommodate homeported and transit ships. From an Ocean Terminal perspective, the study will examine the berthing requirements in

evaluating structural integrity and weight restrictions. Additionally, the study will examine the mobile crane tonnage of the piers and wharfs to determine the operational weight capacity. The scope of the study is instrumental to FLC Pearl Harbors feasibility to conduct logistical cargo operations. Finally, the results of the study will provide definitive support for NAVFAC to escalate the pier refurbishment in their Program Objective Memorandum (POM) cycle.



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