



**STRATEGY
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AIR FORCE AFLOAT PREPOSITION FLEET

BY

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USAWC STRATEGY RESEARCH PROJECT

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ABSTRACT

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The Air Force is in the process of establishing itself as an Air Expeditionary Force (AEF) to assist assigned airmen with operations tempo. AEFs present pre-designated combat, mobility, support and leadership capabilities from which the Joint Force Commander can tailor the desired operational effect. AEFs are the packages that the Air Force uses to present its forces to the theater commander and to meet global steady state and contingency operational requirements. Successful response to regional contingencies depends on sufficient strategic mobility assets in order to deploy combat forces rapidly and sustain them in a theater of operations as long as necessary to meet US military objectives. The strategic mobility triad of airlift, sealift, and pre-positioning are critical components to this response. The Air Force Afloat Preposition Fleet (APF) will be an integral part of this AEF concept. This paper will describe what afloat prepositioning is, provide a historical look at the Air Force's prepositioned fleet and provide some recommendations for the APF in the future as applied to the AEF concept.

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AIR FORCE AFLOAT PREPOSITION FLEET

INTRODUCTION

The end of the cold war has had far-reaching implications for the entire U.S. defense establishment and has inspired the rethinking of policies, postures, strategies, plans, and issues. War reserve policy is one of the more important of these issues. War reserve policy defines a key component of the nation's ability to project military power rapidly. It shapes investments in stockpiles of supplies and equipment and how they are prepositioned. War reserve planning must consider transportation capacity, stockage policy, sustainment, the need for flexibility and adaptability; issues related to the industrial production base, and, obviously, the kinds of wars the United States envisions fighting in the future. The difficulty of developing sound war reserve policy is compounded by the need for quick response in an unfolding military contingency and by the profound uncertainty that plagues every aspect of thinking about and planning for wartime.¹

Successful response to regional contingencies depends on sufficient strategic mobility assets in order to deploy combat forces rapidly and sustain them in a theater of operations as long as necessary to meet US military objectives.² The strategic mobility triad of airlift, sealift, and pre-positioning (prepo) are critical components to this response. In general, airlift transports light, high priority forces and supplies, including personnel and equipment required to rapidly form units with pre-positioning elements' equipment and supplies. As an operation progresses, sealift delivers the heavy combat units and their support equipment as well as the vital sustainment for deployed forces. In most cases, sealift accounts for the majority of the total cargo delivered to a theater of operations. To meet those requirements, sealift forces are employed in three phases of strategic mobility, which are: prepo, deployment and sustainment. As the principal means for delivering equipment and logistics support, sealift impacts the ability to conduct sustained operations and may influence the outcome of the operation being conducted.³

Prepo afloat is made up of ships from the Afloat Pre-positioning Force (APF) of the Military Sealift Command (MSC). The flexibility inherent in the APF makes this force a key element in joint operation planning: the APF is capable of supporting the plans of the entire range of military operations. Pre-positioned cargoes aboard APF shipping include the capability to provide humanitarian assistance with

food rations, medical supplies, habitability sets (tents), potable water-making machinery, engineer support equipment, and motor transport. To enable early delivery of combat power to a theater of operations, additional equipment such as tanks and artillery are pre-positioned. Elements of the APF may be temporarily moved to take up position close to a potential employment area, either to signal national resolve during an evolving crisis or enhance the timely delivery of supplies and equipment upon the decision to deploy a decisive force.⁴

In response to a changing world, the Air Force has begun to rethink its war reserve policy and plans. Much of the uncertainty the Air Force now faces is about when, where, and whom it may be called upon to fight in the future. The Air Force's objective in this post-cold-war era is to maintain flexible, adaptive, rapid force projection capability with global reach to contend with whatever regional contingencies or other operations might arise.

WHAT IS AFLOAT PREPOSITIONING

The Nation's Afloat Prepositioning Force is organized by the Navy's Military Sealift Command (MSC), the agency tasked with providing sealift and ocean transportation for the Services and defense agencies, as well as for non-Department of Defense government agencies. This fleet consists of 13 ships built or reconfigured in the early 1980s to preposition Marine Corps equipment and supplies, 13 Army War Reserve-3 (AWR-3) ships and 9 other prepositioning ships.⁵ This 9-ship fleet carries aviation support cargo for the Marine Corps, ammunition for the Air Force, hospital equipment and supplies for the Navy, and Defense Logistic Agency (DLA) fuels for all the Services. All nine of these prepo ships are crewed by merchant or civil service mariners. As U.S. bases overseas closed, strategic sealift's capability to preposition and deliver equipment and supplies assumed a more critical role in the Nation's strategy of forward presence.

The Air Force Afloat Preposition Fleet (APF) is a component of the global asset positioning (GAP) program. The GAP is comprised of a four part munitions positioning system designed to meet starter⁶ and swing⁷ concepts. In addition to the APF, the GAP consists of theater prepositioned stocks, CONUS stocks, and Standard Air Munitions Packages (STAMP) / Standard Tanks, Racks, Adapters, and Pylon Packages (STRAPP).⁸ The Air Force APF is intended to provide rapid swing stock response capability

and provides commanders in likely theaters of conflict, a flexible source of a wide range of air munitions and other commodities. This APF is comprised of three merchant ships. Together, these ships store approximately 51,000 short tons of munitions and other assets worth over \$1 billion.⁹

The APF combines with Fast Sealift Ships, the Ready Reserve Force, two hospital ships, two aviation support ships, and a number of chartered ships to compose the U.S. Strategic Sealift Force-the largest of the MSC's three peacetime forces. The other two are the Naval Fleet Auxiliary Force, which provides replenishment, surveillance, and towing services to Navy ships at sea, and the Special Mission Support Force, which conducts various technical mission, such as oceanographic research, missile telemetry, and hydrographic surveying.¹⁰

Air Force munitions swing stocks include bomber flyaway munitions, standard airmunitions packages (STAMP), and the APF. Bomber flyaway munitions are prepositioned at Air Combat Command (ACC) bomber bases to support initial operations of a major theater of war (MTW) or contingency. STAMP are configured for airlift from CONUS bases (Hill AFB, Utah and Lackland AFB, Texas) to support early phases of a contingency and/or supplement theater stocks during surge periods of an MTW. New production munitions are generally placed into STAMP to provide flexibility and global availability.¹¹ APF is designed to provide sustainment to an MTW or contingency until wholesale resupply (primarily USAF munitions stored in Army depots) is available. Configuration and ship basing is currently structured to meet MTW taskings (CENTCOM/PACOM) and EUCOM contingencies.

Types of munitions stored on the ships are determined through coordination between theater planners, commanders, and the Deputy Chief of Staff for Logistics and the Deputy Chief of Staff for Operations at Headquarters USAF. The USAF APF Program Management Team at Ogden Air Logistics Center serves as the executive agent for the APF. The executive agent is responsible for the day-to-day management of the APF to include contract formulation, surveillance, and contract oversight, and supervision of download and upload operations.¹²

The executive agent develops inventories, which include detailed listings of assets onboard and exact location by cargo hold provided to all theater commanders and planning staffs. Air Staff functional counterparts and Quality Assurance Evaluator (QAE) personnel also have this information readily available. This provides asset visibility to all theater commanders and staffs.¹³

Storage configurations ensure maximum use of available space. Munitions onboard the APF ships are stored in temperature and humidity controlled environments. Environmental control systems include air conditioning units and dehumidifier systems connected to each cargo hold. Each ship is equipped with systems designed to monitor cargo hold readings. These readings are provided to QAE personnel who in turn forward to the Air Force's executive agent for contract compliance review.¹⁴

Defense Planning Guidance directs the Air Force to maintain at least the current level of afloat prepo ships. The Joint Staff considers them Strategic Forces because they are not dedicated to a particular CINC but can be swung to wherever they are needed to include use by other Services. The Joint Staff directs/approves the use of the APF during contingency operations and factor into the entire CINCs munitions support posture, not just the Air Force's. EUCOM and PACOM maintain day to day operational control but since they are considered forces, a JCS deployment order is required to employ the ships. In case of simultaneous OPLAN execution, the Joint Material Priorities and Allocation Board will convene to decide the priority of use. Additionally, any major changes to the program, i.e., location and configuration changes must be coordinated through the Joint Staff for further coordination with USTRANSCOM and the affected geographic CINCs.¹⁵

A HISTORY OF THE AIR FORCE AFLOAT PREPOSITION FLEET

Prior to the Gulf War, all the DOD services stored significant quantities of war reserve material on preposition vessels. The service's APFs were developed from requirements outlined in a 1981 Sea Mobility Study mandated by Congress. The Air Force requirement for preposition ships was driven by a shortage of storage capability in the Southwest Asian Theater (SWA). The original Air Force APF was composed of three commercially contracted bulk cargo vessels. Although the primary cargo was ammunition, they also carried smaller quantities of vehicles, rations, fuels support equipment, and miscellaneous supplies. The vessels were positioned in the Mediterranean and the Indian Ocean and were solely dedicated to support US Central Command (USCENTCOM) contingencies.¹⁶

When Sadaam Hussein invaded Kuwait in 1990, the APF was tasked at the outset of Desert Shield. The vessels arrived at SWA ports in only a few days. The APF proved essential in providing initial combat capability to the theater; this was critical since the average sailing time for follow-on

sustainment vessels from CONUS was over 60 days. Had hostilities commenced without the benefit of the long build-up period of Desert Shield, the APF vessels would have played a more crucial role.

When the Gulf War ended, a massive quantity of ammunition was positioned in SWA, with an additional twenty-six sustainment vessels en-route. The need to reconstitute the SWA stocks required an in-depth assessment of the Air Force worldwide munitions inventory to determine where to best reposition assets. Although much of the ammunition moved during the war was drawn from US Air Forces in Europe (USAFE) stocks, it was no longer needed there due to base closures and force structure reductions. Additionally, Central Air Force (CENTAF) had gained new capabilities to satisfy ammunition requirements with in-theater positioning, reducing reliance on APF ships. This proved to be a critical decision point for the future of the Air Force APF.

In April 1991, the Munitions Reconstitution Conference convened to formalize a plan to address post Desert Storm worldwide ammunition positioning issues. The resulting agreement established the Global Asset Positioning program (GAP). GAP was based on three principles: the necessity to flexibly position the limited quantities of modern "smart" munitions that proved so successful during the Gulf War; the redistribution of munitions assets worldwide to support post cold-war contingency requirements; and the retrograde of unneeded or less capable ammunition. After a thorough review, it was concluded that a restructured APF program would contribute to the flexible component of GAP, complementing CONUS and in-theater storage. Unlike the pre-Gulf War APF, which supported only CENTAF, the new fleet would be available to any MAJCOM. An interim plan was established pending a more comprehensive review of APF capabilities. The interim plan retained four APF vessels, one configured for bomber aircraft support and three configured for fighter aircraft support.

In August 1994, a three phased APF restructuring plan was approved by theater CINCs and the Air Force Chief of Staff. The plan increased the CINC's war-fighting capability by providing greater quantities of preferred munitions early in a contingency. The vessels of the APF, along with Standard Air Munitions Packages (STAMP), were coined Rapid Response Swing Stocks. The APF and STAMP augmented in-theater munitions starter stocks by providing rapid re-supply to the first engaged CINC before sustainment stocks could be established.

The plan outlined three primary actions: the reduction of the fleet from four to three vessels; refurbish the ships cargo hold environmental control systems; and replace outdated munitions. Phase I, the modernization of the SS Austral Rainbow, began in December 1994. Her cargo, exclusively 750 pound general-purpose bombs and older cluster bombs for B-52 bombers, was turned over to the Single Manager for Conventional Ammunition (SMCA) for demilitarization. The Rainbow was uploaded with newer munitions at Naval Weapons Station (NWS) Concord, California, in April 1995, and returned to the Indian Ocean in May 1995. Phase II, the download and contract termination of the SS American Kestrel, was accelerated to January 1995. Phase III, the modernization of the MV Buffalo Soldier began in January 1996 at NWS Concord. The Soldier arrived back on station in the Indian Ocean in May 1996.¹⁷

From lessons learned during the Gulf War, the transportation and munitions communities began working to support Joint Service initiatives to enhance port handling and intra-theater movement capabilities. The efforts centered on the use of International Organization for Standardization (ISO) containers to transport and store munitions earmarked for contingencies. The Air Force decided to begin the move toward APF containerization with the expiration of the MV American Merlin's contract in FY97. The Merlin was downloaded, and a crossload operation conducted with a new vessel at Military Ocean Terminal-Sunny Point (MOTSU), North Carolina. The replacement vessel, renamed for AF Medal of Honor recipient Captain Steven L. Bennett, was contracted as the first fully containerized preposition ship in the DOD. The Bennett upload was completed in November 1997 then departed for positioning in the Western Mediterranean.

Future composition of the APF is driven by the need to achieve full containerization. Container vessels comparable to the Bennett will replace the two remaining bulk cargo vessels. The SS Austral Rainbow was replaced this year (1999). The follow-on container vessel was contracted by Military Sealift Command (MSC) in November 98 and the crossload occurred at MOTSU this past December. The MV Buffalo Soldier crossload is programmed for FY01. Upon completion of full containerization, the fleet will preposition approximately 52,000 short tons of ammunition stored in approximately 5,000 ISO containers. With the employment of the new Air Expeditionary Force (AEF) concept, the requirement to maintain an Air Force APF is programmed into the foreseeable future.¹⁸

THE EXPEDITIONARY AEROSPACE FORCE

Expeditionary Aerospace Force (EAF) is the Air Force's vision to organize, train, equip, deploy and sustain itself in the dynamic 21st Century global security environment. Under this concept, the Air Force will provide rapidly responsive, tailored-to-need aerospace force capability, prepared and ready to conduct military operations across the full spectrum of conflict from peacekeeping to war.¹⁹

Sustained operations tempo (OPTEMPO) has impacted Air Force readiness, morale, retention, recruiting and modernization. The EAF construct provides the tools to better manage the force, determine its stresses, and when, where and how to focus contingency operations tempo relief. Additional TEMPO relief results from distributing the deployment workload across the Total Force (Active Duty, Air National Guard and Air Force Reserve) with the Air Reserve Component (ARC) deploying its assigned forces forward. EAF offers Air Force units, people, their families and ARC employers greater stability and predictability by operating on an established and equitable 15-month deployment lifecycle.²⁰

EAF addresses the high demands the strategy of Global Engagement places on USAF forces. These demands include maintaining high deployment tempos and multiple sustained forward operating locations while retaining rapid crisis response capability...and the ability to conduct two MTWs. These demands are stressing AF people and assets. The symptoms include lower retention rates, decreasing squadron readiness rates, increasing cannibalization rates and lower aircraft mission-ready rates. EAF steps up to a dual challenge: sustaining USAF aerospace assets and retaining their critically skilled people while presenting timely, relevant forces to meet the demands of the US national strategy.

The EAF construct determines how the Air Force is organized, trained, and equipped to support the national military strategy of global engagement operations with ready forces. Being expeditionary means the Air Force conducts global aerospace operations with forces based primarily in the US that will deploy rapidly to begin operations on bed-down. Our expeditionary nature means we can deploy to austere locales without a robust support infrastructure and operate there for an unknown duration supporting joint military operations.²¹

THE AIR EXPEDITIONARY FORCE

Aerospace Expeditionary Forces (AEFs) represent aerospace capability (air superiority, air-to-ground, precision attack, mobility, and bombers) in pre-determined, scheduled sets of forces (aircraft,

equipment and personnel). From these force sets, tailored-to-need force packages would then be tasked to deploy. AEFs include a cross section of Air Force weapon systems (150+ total aircraft of dissimilar types) and people (10,000-15,000) providing forces for theater commanders' air campaigns.²²

AEFs present pre-designated combat, mobility, support and leadership capabilities from which the Joint Force Commander can tailor the desired operational effect. AEFs are the packages that the Air Force uses to "present its forces" to the theater commander and to meet global steady state and contingency operational requirements. AEF force elements fulfill a 90-day "on call" period every 15-months so AEF-affiliated members will know when they are "in the window" for deployment, when they are training and when to prepare for the "on call" rotation so they can plan their lives accordingly.

AEFs, as expeditionary aerospace capability, are not deployable units, and do not have a command authority. Deployable units are formed as Aerospace Expeditionary Wings (AEW), Groups (AEG) or Squadrons (AES) which deploy with tactical-level command and control. When deployed, AEWs, AEGs, or AES' align to joint command structures, normally as an Aerospace Expeditionary Task Force (ASETFF), under the command of the COMAFFOR. Total force integration of Air National Guard and Air Force Reserve people and their frontline combat and support aircraft allow better force and personnel tempo management.

Force preparedness of AEFs is focused through designated "lead wings" who will provide contingency operation leadership (at the tactical level) for some deployments where there is no pre-existing command structure. The lead wings would designate command elements should the AEF have to provide group or wing-level leadership to expeditionary locations and also the bulk of combat support team responsibilities, such as large numbers of security forces, civil engineering and communications personnel.

Five mobility "lead wings" paired to the AEFs provide expeditionary leadership and airlift expertise for response to non-combat military operations such as humanitarian relief operations (HUMRO or HR), disaster response, aid relief and non-combatant evacuation operations (NEO) from hostile areas.

Full expeditionary aerospace force evolution will take time and programmed investment until each AEF will contain the same combat capability and specialized weapons systems. Throughout this process, two "on-call" crisis response AEWs, scheduled back-to-back, will provide rapid force projection capability.

They share, with the paired residual AEF forces, "on call" responsibilities to provide rapid (within 48 hours from warning) effects-based aerospace forces to meet rapidly developing global contingencies.

Nearly every Air Force wing provides aviation or combat support forces to the AEFs as some 65% of Air Force people serve in deployable positions. In some cases, wings provide both aircraft and associated support capability. In other cases, a wing may only provide combat support personnel or equipment to the AEF. Most wings have forces aligned with multiple AEFs. To help address deployment-associated personnel tempo (PERSTEMPO), and to relieve home station mission demands, the Air Force has realigned manpower authorizations to the greatest contingency-stressed career fields and to the lead wing units.

As the USAF looks at prepositioning and the AEF initiative, it must consider the concept of robustness to its formulation of war reserve policies and prepositioning strategies if it is to meet its post-cold War objectives. What is meant by the robustness of any war reserve strategy, resource mix, or prepositioning posture is simply how well that strategy, mix, or posture would perform across a wide range of possible futures. In other words, a robust war reserve stockage posture or prepositioning strategy would serve the United States well no matter what scenario occurred or how it evolved.²³

Robustness derives in part from actions the Air Force takes before a contingency occurs and in part forms the way it prepares itself to act during the contingency itself. The formulation of war reserve policy and determination of investment levels are among the former, as is the shaping of a peacetime prepositioning posture. As trouble begins to develop, however, the nation's prepositioning posture can and, perhaps, should be changed to adapt to the changing geopolitical environment. War reserve assets that are moved by air and those stored aboard ships provide the Air Force and the National Command Authority (NCA) with flexibility in achieving a dynamic and responsive prepositioning posture.²⁴

THE USE OF PREPOSITIONING AFLOAT

Decision making about war reserves can be distilled into three central and interrelated issues: what kinds and quantities of resources should the Air Force acquire and have on hand at the start of a major military contingency? Where should those resources be stored in peacetime? What strategy should be employed in a crisis for supporting deploying units with war reserve assets? Scenario

uncertainty has important implications for the process of addressing these three fundamental war reserve policy issues.²⁵

When the National Command Authority orders the Air Force to respond in a contingency, munitions on the ground have to be moved to operating bases by truck, rail, or air. At the same time, ships begin moving toward ports that have limited berthing and unloading capacity, and the unloaded munitions have to be moved to bases.²⁶ Two primary sources of uncertainty are the warning time and the theater. Warning time is taken to be the number of days between C-day, when it is decided to deploy, and D-day, when hostilities begin. In addition to these two uncertainties, a variety of things can go wrong. One of the ships scheduled to arrive early in the scenario might be late or a ship might be sunk. Perhaps transit through (for example) the Strait of Hormuz is impeded because of mines or other threatening action. Acts of sabotage could destroy munitions prepositioned on the ground. It may be decided not to deliver munitions to operating bases by air (perhaps an aircraft might have been lost to enemy action and further air deliveries to forward operating bases are deemed to be dangerous).²⁷

During the operations in Kosovo, the Afloat Proposition Fleet Program was a success. Within six days of request, the Steven L Bennett was in place at Nordenham, Germany and download was commencing. It took only six days to remove over 18,000 tons of assets; a great tribute to the efficiency of the containerized method of loading all-up-round munitions. Had this been a break-bulk ship, off-load could have taken up to a month. Assets were then placed aboard railcars for delivery to Germany and Italy and aboard coaster vessels capable of navigating the England's smaller ports for support of the F-15Es at RAF Lakenheath.²⁸

Once the Bennett was downloaded, it became a resupply vessel and was returned to the CONUS to load munitions in support of the planned beddown of bomber operations in EUCOM. In the meantime, as the Bennett was steaming to the States, a Military Sealift Command long-term lease vessel was obtained to expedite delivery. Within 12 days of request, assets from depot locations across the US were consolidated at Sunny Point, stuffed into containers, loaded aboard the Green Wave and set sail to Europe.²⁹

Projected expenditures, particularly in precision guided munitions (PGMs), required more assets than were available in STAMP or CONUS stocks. Overages in other MAJCOMs were shipped to the

theater but did not nearly meet the anticipated needs. Therefore, the Austral Rainbow was requested by EUCOM. Though the release of the Bennett by the Joint Staff was swift, the release of the Rainbow raised concern over the potential impact to other areas of operation outside EUCOM. However, through direct Chief of Staff Air Force (CSAF) intervention, the Joint Staff approved the use of the Austral Rainbow on 2 May and it set sail to Turkey. Operations for all ships were projected at austere locations in Turkey, which required explosive site planning, contractor support negotiations, and host nation approval. By the time these issues were accomplished the war ended with only 400 tons of munitions, primarily PGMs downloaded. The order was then given to reload assets to the ships. At the same time the Rainbow was requested, the third and final ship was requested, but disapproved.³⁰

As with any major operation the after action reviews highlighted numerous areas for improvement. The use of International Organization for Standardization (ISO) containers verified their immense value in speeding the transportation process. Potential download sites required review within all theaters and international support agreements, joint support plans, and explosive siting issues needed resolution. Ships will be "dead in the water" without adequate host nation support agreements.³¹ This is particularly important when we consider the implications of AEF.

Additionally, it was discovered that the ships were too large and drew too much draft to operate at some key locations. This forced a lot of workaround and added aggravation for the USAFE support staff. Again, this could prove particularly detrimental at AEF locations where ready alternatives for transporting materials to the docks have not been previously identified, negotiated or established with host nations.³²

FUTURE POTENTIAL OF THE PREPOSITION AFLOAT FLEET

Kosovo lessons learned and the emerging AEF with its associated need for rapid response have prompted the Air Force Deputy Chief of Staff for Installations and Logistics (HQ USAF/IL) to review the adequacy of three large, relatively slow ships based in only two locations to provide rapid global coverage. HQ USAF/IL is pursuing near-term and out-year solutions. The near-term plan is to reconstitute the existing three-ship fleet with the best available mix of munitions. Because of heavy consumption of precision guided munitions (PGM) during Operation ALLIED FORCE, the reconstitution effort will see significant quantities of preferred PGMs such as GBU-10/12/24 and AGM-65 replaced with 500 and 2,000 pound general purpose gravity (or dumb) bombs. In addition, HQ USAF/IL has proposed

rebasing one of the three existing ships (in this case the Buffalo Soldier) from Diego Garcia to either Saipan or Okinawa to provide sustainment earlier to MTW-West (PACOM). The proposal is being staffed within HQ USAF and requires JCS approval prior to execution.³³

HQ USAF long-term vision is to expand the fleet to possibly four or more smaller faster ships. This expansion is designed to better support MTW contingency scenarios as well as meet AEF rapid response objectives. However, the current munitions stockpile does not support the objective of executing multiple contingencies with available PGMs in the near-term. In addition, it is estimated that it could cost an additional \$14 million per year per vessel to expand the fleet. Funding for the proposed expansion would require a POM initiative for initial PGM procurement and long term sustainment of the fleet.³⁴

For the near term, munitions planners are working to balance the GBU-12 inventory between the ships. Precision Guided Munitions will be in short supply for the next couple of years, however as newer weapon systems come on line they will be added to the APF inventory beginning FY01. For example, projections call for the JDAM total to increase to 14,076 over three years, and the CBU-103 total to 6,335 over two years. In addition, the HQ USAF plan requires containerization to continue for all the vessels with the second vessel completed in late 1999 and the third vessel programmed for FY 01. In order to make all of these actions happen, MAJCOM planners need to work munitions siting and international support agreements for potential download operations with host nations. As previously stated HQ USAF/IL is in the coordination process with the Joint Staff to move the Buffalo Soldier to the PACAF theater in order to provide better global coverage and mitigate unnecessarily long sail time to port of intended use. This action has the potential to cut the reaction time from 14 to 3 days.³⁵

Military Sealift Command is working to provide the Air Force with a number of smaller, faster ships to help spread the inventory wider, get it to its point of use faster and ensure access to any port desired. However, this will be a long-term funding issue since every additional ship will average \$12-14 million per year to lease and operate.³⁶

RECOMMENDATIONS

A primary factor to consider is the joint doctrine for prepositioning. There is existing joint strategic mobility triad doctrine for the Defense Transportation System with specific publications for airlift and sealift support to joint operations, but there is a doctrinal void when it comes to prepo. The Joint Staff is reviewing various potentials of joint strategic positioning to include two doctrine proposals with a projected completion date of November 2000. The first option is to develop a new joint publication series that specifically covers prepo and secondly, combine the airlift, sealift and a new prepo doctrine into a single strategic mobility triad joint publication.³⁷

A review of the draft FY02-07 Defense Planning Guidance by HQ USAF/ILMW and HQ PACAF/LGLW reveal that it addresses small scale contingencies (SSC) and major theater of war (MTW) relationships as well as the Air Force's Air Expeditionary Force (AEF) concept. However the draft DPG stops short of telling the Air Force how to position its munitions stockpile but implies that the APF remain at present levels and proposed usage. The proposed HQ USAF/IL plan for an increased fleet of smaller, faster prepositioning ships will meet the draft DPG guidance. Due to experience in Bosnia and Kosovo, outside CONUS (OCONUS) STAMP should be considered as well as robust bomber forward operating locations (FOL). Much is being done to expand PACAF's bomber FOL capabilities at Andersen AFB, Guam and Diego Garcia in support of future AEF development. Andersen AFB is a PACAF main operating base with sufficient infrastructure, so primary attention from HQ USAF and PACAF staffs have been at Diego Garcia. This location is a British owned, Navy managed base that requires significant communication, billeting, facility and quality of life improvements. Air Force planning efforts have identified \$36 million in base infrastructure upgrades to support Diego Garcia to meet CSAF's AEF initiatives.

Service components and component commands have the responsibility to support the CINC's objectives. The Air Force is in the process of finding a way to satisfy the CINC's (and CSAF's AEF concept) priorities with a very limited munitions inventory. Flexibility associated with swing stocks (APF / STAMP / bomber flyaway) are critical to all CINCs. For example, CINCPAC has his staff brief him monthly on the worldwide status of those munitions he considers critical to his phased war plans (although there is no formal requirement for the staff to do so). This is done to ensure access to a "fair-

share" of the worldwide munitions inventory. Although the JCS continues execution of swing stocks (to include the APF) the extraordinary effort of the PACAF staff highlights one CINC's concern over munitions inventories and available quantities. This will only be exacerbated with AEF operations. Therefore, increased munitions asset visibility is required to better serve the CINC's objectives.

In addition to visibility, consideration to increasing the munitions stockpile specifically in preferred munitions, i.e. PGMs needs to be accomplished. After Operation ALLIED FORCE, the Air Force was unable to completely recover what was consumed even through emergency supplemental funding. The stockpile needs to be increased with PGMs even if it is at the expense of some other Air Force program. If increased funding is not available, then the Air Force should find funding offsets to meet this objective. The Air Force appears to place priority on the future (space/ information superiority) and allow sustainment of munitions to meet SSC/MTW strategy to take a back seat. Careful consideration of munitions stockpiles, quantities and locations, are crucial for the AEF concept to work.

Another consideration to support the AEF is more but smaller STAMPs with possible addition of outside CONUS (OCONUS) beddown locations. The Air Force has existing infrastructure and airlift capable locations to support this proposed overseas expansion with minimal cost. Tactical airlift resources such as the C-130 should be looked at as the primary transport vehicle for overwater transportation. Consideration to use the Army 's transportation system (where available) offers the overland option to move munitions to inland bases.

The HQ USAF/IL concept of more, smaller, faster ships to preposition the munitions in various theaters is a sound recommendation. However, the Air Force must site-survey numerous ports to ensure port capacity, draft contingency contracts for inland transportation, work out customs/import restrictions for a multitude of locations to be sure there are ports to place the APF ships at execution by the CINC.³⁸

Known AEF locations are unpredictable, therefore consideration to use existing locations with known infrastructure as "launching pads" for AEF operations needs to be studied. These sites can be studied for airlift with C-130 aircraft and inland movement via the Army transportation system or contingency contracted carriers to move the munitions where required. Again, tie the STAMP, bomber flyaway packages and the APF positioning into the equation to identify required resources to support the AEF concept.³⁹

CONCLUSION

In response to a changing world, the Air Force has begun to rethink its war reserve policy and plans. Much of the uncertainty the Air Force now faces is about when, where, and whom it may be called upon to fight in the future. The Air Force's objective in this post-cold-war era is to maintain flexible, adaptive, rapid force projection capability with global reach to contend with whatever regional contingencies or other operations might arise. The Air Force Afloat Preposition Fleet is a critical component of this rapid force projection capability.

Defense Planning Guidance directs the Air Force to maintain at least the current level of afloat preposition ships. The Joint Staff considers them Strategic Forces because they are not dedicated to a particular CINC but can be swung to where ever they are needed to include use by other Services. The Joint Staff directs/approves the use of the APF during contingency operations and factor into the entire CINCs munitions support posture, not just the Air Force's.

This paper has attempted to highlight the importance of the Air Force's afloat prepositioned fleet and its critical contribution to the employment of the air expeditionary force. Implementing the recommendations will only improve the overall support of the APF to the warfighter.

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ENDNOTES

¹ John B. Abell, Carl Jones, Louis W. Miller, Evaluations of Alternative WRM Prepositioning Strategies, (Washington D.C.: RAND Study, September 1996), 3.

² Joint Chiefs of Staff, Joint Tactics, Techniques, and Procedures for Sealift Support to Joint Operations, Joint Pub 4-01.2 (Washington D.C.: Joint Chiefs of Staff, 9 October 1996), I-1.

³ *Ibid.*, vii.

⁴ *Ibid.*, I-3.

⁵ Erin M. Metzinger, "Prepositioning as a Joint Undertaking: Military Sealift Command's Afloat Prepositioning Force," Marine Corps Gazette 81 no 8 (August 1997): 1.

⁶ Starter stock – Each theater's starter stock objective is based on the number of days of munitions needed to sustain full combat operations until the logistics resupply lines are established. Number of days is different for each theater and those numbers are classified. Up to 50% of swing stock (see note number 7) may be considered as available to fulfill the needs of the starter objective if it is not feasible to position assets in the theater. This is because of storage restrictions or for lack of available assets to support all worldwide munitions requirements.

⁷ Swing stock – Consists of APF, STAMP, and bomber flyaway munitions available to any theater conducting war operations. A portion of the overall WRM munitions requirement set aside to ensure rapid resupply to any engaged CINC during a contingency. May serve to augment either starter stock, total combat requirement, or both.

⁸ Air Force Inspection Agency, Special Management Review, Prepositioned War Reserve Materiel, PN 97-701, Afloat Prepositioned Fleet, (Kirtland AFB, NM: Air Force Inspection Agency, 1997), slide 2.

⁹ Air Force Inspection Agency, slide 2.

¹⁰ Metzinger, 1.

¹¹ Greg Osbun, GS-12, Background Paper on USAF Munitions Afloat Prepositioned Fleet (APF) Program (Hickam AFB, HI: HQ PACAF/LGWX, 8 September 1999), 1-2.

¹² Air Force Inspection Agency, slide 2.

¹³ *Ibid.*, slide 5.

¹⁴ *Ibid.*, slide 6.

¹⁵ Jack Stewart, Lt Col, "Afloat Prepositioning Fleet," briefing slides with scripted commentary, HQ USAF/ILMW, 29 September 1999, slide 7.

¹⁶ Brian Withrow, Capt, A History of the Air Force Afloat Preposition Fleet, (HQ USAF/ILSR Background Paper, Washington D.C., December 1998), 1.

¹⁷ *Ibid.*

¹⁸ Ibid.

¹⁹ HQ USAF/XOPE, EAF Implementation Division, Detailed Concept Paper – Expeditionary Aerospace Forces, 1 October 1999, 1.

²⁰ Ibid., 2.

²¹ Ibid., 3.

²² HQ USAF/XOPE, Detailed Concept Paper – Aerospace Expeditionary Forces, 1 October 1999, 1.

²³ Abell, 3.

²⁴ Ibid., 4.

²⁵ Abell, 7.

²⁶ Ibid., 23.

²⁷ Ibid., 24.

²⁸ Stewart, slide 10.

²⁹ Ibid.

³⁰ Stewart, slide 11.

³¹ Stewart, slide 12.

³² Ibid.

³³ Osburn, 1.

³⁴ Ibid.

³⁵ Stewart, slide 13.

³⁶ Ibid.

³⁷ Joint Chiefs of Staff, slide 3.

³⁸ Ibid.

³⁹ Ibid.

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